

Pertanika Journal of  
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& HUMANITIES**

**JSSH**

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**PERTANIKA**  
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# PERTANIKA JOURNAL OF SOCIAL SCIENCES & HUMANITIES

## About the Journal

### Overview

Pertanika Journal of Social Sciences & Humanities is the official journal of Universiti Putra Malaysia. It is an open-access online scientific journal. It publishes original scientific outputs. It neither accepts nor commissions third party content.

Recognised internationally as the leading peer-reviewed interdisciplinary journal devoted to the publication of original papers, it serves as a forum for practical approaches to improve quality in issues pertaining to social and behavioural sciences as well as the humanities.

Pertanika Journal of Social Sciences & Humanities currently publishes 6 issues a year (*March, April, June, September, October and December*) periodical that considers for publication original articles as per its scope. The journal publishes in **English** as well as in **Bahasa Malaysia** and it is open for submission by authors from all over the world.

The journal is available world-wide.

### Aims and scope

Pertanika Journal of Social Sciences & Humanities aims to develop as a pioneer journal for the social sciences with a focus on emerging issues pertaining to the social and behavioural sciences as well as the humanities. Areas relevant to the scope of the journal include Social Sciences—architecture and habitat, consumer and family economics, consumer law, education, media and communication studies, political sciences and public policy, population studies, psychology, sociology, and tourism; Humanities—arts and culture, dance, language and linguistics, literature, music, philosophy, and sports.

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Pertanika Journal of Social Sciences & Humanities was founded in 1993 and focuses on research in social and behavioural sciences as well as the humanities and its related fields.

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To publish journal of international repute.

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The abbreviation for Pertanika Journal of Social Sciences & Humanities is *Pertanika J. Soc. Sci. & Hum.*

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The *Introduction* explains the scope and objective of the study in the light of current knowledge on the subject; the *Materials and Methods* describes how the study was conducted; the *Results* section reports what was found in the study; and the *Discussion* section explains meaning and significance of the results and provides suggestions for future directions of research. The manuscript must be prepared according to the journal's **Instruction to Authors** ([http://www.pertanika.upm.edu.my/Resources/regular\\_issues/Regular\\_Issues\\_Instructions\\_to\\_Authors.pdf](http://www.pertanika.upm.edu.my/Resources/regular_issues/Regular_Issues_Instructions_to_Authors.pdf)).

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# Foreword

Welcome to the first issue of 2025 for the *Pertanika Journal of Social Sciences and Humanities (PJSSH)*!

PJSSH is an open-access journal for studies in the field of Social Sciences and Humanities published by Universiti Putra Malaysia Press. It is independently owned and managed by the university for the benefit of the world-wide science community.

This issue contains 21 articles; three review articles; and the rest are regular articles. The authors of these articles come from different countries namely Bangladesh, Indonesia, Malaysia, Philippines, Rwanda, South Africa, Thailand and Vietnam.

Han Nu Ngoc Ton and colleagues investigate the dynamics of neighbourhood governance in Vietnam during the COVID-19 response. The study focuses on social workers in residential quarters, sub-quarters, and community COVID groups in two Vietnamese megacities (e.g., Hanoi capital, Ho Chi Minh City). The results indicate that neighbourhood social capital and governmental hierarchical steering emerge as two dynamics of effective neighbourhood governance. The study's findings present valuable insights for the body of knowledge, specifically on collaborative governance theory. The detailed information of this article is presented on page 73.

A regular article titled “Teacher Preparedness, Availability of Teaching Materials, and the Implementation of Competence-based Curriculum” examined the influence of teacher preparedness and the availability of teaching materials on implementing a competence-based curriculum. The results reveal that teacher preparedness had a greater influence on competence-based curriculum than the availability of teaching materials. The detailed information of this article is presented on page 181.

An article entitled “I don't want to do that anymore: Motivation and Strategies to Desistance Among Juvenile Offenders in Indonesia” explores the motivations for desistance among juvenile offenders in Indonesia and the strategies that juvenile offenders in Indonesia plan to use to desist from crime. The findings contribute to the narrative-based theory of desistance by showing how identity transformation is driven by personal motivations and influenced by deeply rooted cultural values.

They also undertake a pioneer examination of the motivation to avoid crime and the strategies among Indonesian juvenile offenders. Further details of the study can be found on page 229.

We anticipate that you will find the evidence presented in this issue to be intriguing, thought-provoking and useful in reaching new milestones in your own research. Please recommend the journal to your colleagues and students to make this endeavour meaningful.

All the papers published in this edition underwent Pertanika's stringent peer-review process involving a minimum of two reviewers comprising internal as well as external referees. This was to ensure that the quality of the papers justified the high ranking of the journal, which is renowned as a heavily-cited journal not only by authors and researchers in Malaysia but by those in other countries around the world as well.

We would also like to express our gratitude to all the contributors, namely the authors, reviewers and Editorial Board Members of PJSSH, who have made this issue possible.

PJSSH is currently accepting manuscripts for upcoming issues based on original qualitative or quantitative research that opens new areas of inquiry and investigation.

**Editor-in-Chief**

Puvaneswaran Kunasekaran



## **The Relationship Between Social Network Usage and Mental Health Among Youths in Klang Valley, Malaysia**

**Hanan Safiah Suhaimie, Pua Qian En, Sajeeth Revindran,  
Wan Muhammad Ariff Abdul Rashid and Zaleha Md Isa\***

*Department of Public Health Medicine, Faculty of Medicine, Universiti Kebangsaan Malaysia, Jalan Yaacob Latif, Bandar Tun Razak, Cheras, 56000 Kuala Lumpur, Malaysia*

### **ABSTRACT**

The usage of social media among young people has alarmingly increased over the past 20 years, accompanied by an increase in mental health issues. This study aimed to identify the association between social network usage and mental health among Klang Valley, Malaysia youths. A total of 288 respondents aged 18 to 30 years old were recruited using snowball sampling. The response rate was 88.62%. The Social Network Usage Questionnaire (SNUQ) was used to measure social network usage, and the Depression, Anxiety and Stress Scale-21 Items (DASS-21) was used to assess depression, anxiety, and stress levels. The prevalence of depression, anxiety and stress among the respondents was 35.2%, 44.8% and 30.6%, respectively. The median duration of social network usage was 5 (Q1, Q3: 4,8) hours a day. Respondents' anxiety levels were positively correlated with monthly individual income ( $r=0.133$ ,  $p=0.025$ ) and level of constraint in using social media ( $r=0.239$ ,  $p<0.001$ ), while depression ( $r=0.257$ ,  $p<0.001$ ) and stress ( $r=0.260$ ,  $p<0.001$ ) levels showed a positive correlation with the level of constraint in using social media. The anxiety mean score was higher among respondents who used TikTok, 2.35 (SD = 1.57), compared to respondents who never

used TikTok, 1.97 (SD = 1.36;  $p=0.033$ ). Higher monthly individual income, higher constraints in using social media and TikTok usage were the factors associated with anxiety among youths. None of the social media usage influenced depression and stress levels. More studies are needed to establish an association between social media usage and the mental health of youths in Malaysia.

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*Keywords:* Anxiety, depression, mental health, social network, stress, TikTok, youths

## INTRODUCTION

Mental health is a state of mental well-being that enables people to cope with the stresses of life, realise their abilities, learn well and work well, and contribute to their community (World Health Organization, 2022). Mental health is more than the absence of mental disorders. It exists on a complex continuum, which is experienced differently from one person to the next, with varying degrees of difficulty and distress and potentially very different social and clinical outcomes.

Social media has increasingly become a platform where individuals with mental illnesses seek solace and community. These platforms offer a form of digital therapeutic alliance where users can share personal experiences, obtain information on mental health, and, most importantly, find support from others who are experiencing similar challenges. The ability to connect with others who understand their struggles helps users feel less isolated and more understood. This phenomenon is supported by research indicating that many individuals with mental health issues turn to social media to escape reality and find comfort. These platforms provide a unique space for individuals to openly discuss their experiences, receive peer support, and access information that might not be readily available offline (Montag & Markett, 2023).

Social media is a widely used platform via web or mobile applications which allows quick, efficient, and broad communication between individuals through certain networks such as Facebook, Twitter,

Instagram, Snapchat, TikTok, and Telegram. In recent years, the widespread adoption of social media has brought about a paradigm shift in how people communicate and interact (Hatamleh et al., 2023). Modern technology, particularly social networks, enables the sharing, exchange, and co-creation of various forms of digital content, including information, messages, photos, and videos. This functionality allows users to communicate and collaborate in previously impossible ways. Social networks provide the infrastructure for these interactions, making it easy for people to connect and engage with content from anywhere in the world (Nie et al., 2023).

Currently, social media is a very common lifestyle that we are so used to, as it provides much positivity, where efficiency is acquired. Still, there are always some limitations, such as individuals tending to be lazy and have an easygoing lifestyle. With an estimated three billion users globally, social media has been incorporated into everyday life. Youth and adolescents are among the most frequent users of social media, with many studies highlighting this demographic's extensive engagement with platforms like Instagram, Snapchat, and TikTok. A desire for social connection, self-expression, and entertainment often drives social media usage among young people. Additionally, the developmental stage of adolescence, characterised by identity formation and peer influence, makes social media particularly appealing to this age group (Anderson et al., 2023).

Social media usage among youth is pervasive worldwide, with substantial

variation across regions. Globally, social media platforms like TikTok, Instagram, and WhatsApp have seen massive growth, particularly among younger demographics. TikTok is especially popular among Gen Z and young adults, with engagement levels skyrocketing in regions such as Southeast Asia. In Western countries, platforms like Snapchat and TikTok are dominant among the younger audience, whereas in regions like Latin America, Facebook and Instagram remain more prevalent among youth. In Malaysia, social media is deeply ingrained in the daily lives of the youth. As of 2024, TikTok has emerged as the most popular platform among Malaysian youth, with about 50.3% of users aged 18–24 years old and a total advertisement reach of approximately 83.1% of the population. Other platforms such as Instagram and Facebook also maintain strong user bases, particularly among users aged 18–34 years old, who make up most social media users in the country. Moreover, WhatsApp leads in overall social media usage in Malaysia, favoured for communication by 90.7% of users. While Facebook and Instagram are still widely used, TikTok's rapid rise, especially among the youth, marks a significant shift in the social media landscape. The general trend in Malaysia reflects a growing reliance on digital platforms for both social interaction and content consumption (Kemp, 2024). Overall, the social media environment in Malaysia mirrors global trends, but particular platforms are seeing more prominence due to regional preferences and cultural nuances.

Meanwhile, there has been a relationship between social media usage and mental health, and the relationship is often complex and multifaceted, with both positive and negative aspects. An increased risk of depression, anxiety, stress, obsessive-compulsive disorder (OCD), attention-deficit/hyperactivity disorder (ADHD), and the tendency for binge drinking have all been linked to problematic social networking sites (SNS) usage. According to a meta-analysis, the amount of time spent using social media and the frequency of usage has a weak correlation with depression symptoms (Weinstein, 2023). In addition, people increasingly experience information overload on social media, which influences psychological distress. It has also been shown to trigger negative social comparisons, promoting anxiety symptoms and interfering with their daily activities (Xu et al., 2022).

### **The Impact of Social Network Usage on Depression, Anxiety and Stress**

Excessive exposure to social networking sites will intensify depression (Yoon et al., 2019). Higher levels of depression were associated with greater time spent on social networking sites and a higher rate of checking frequency. Besides, the greater the general or upward social comparisons, the higher the levels of depression. The effect on depression from both social comparisons on social networking sites is stronger compared to the time spent on them (Yoon et al., 2019). A narrative review concluded that social media use contributes to depression and anxiety among youth (Prasad et al., 2023).

However, there is research showing contradicting results that greater time spent on social media leads to higher levels of depression. Social comparisons with unrealistic standards for happiness and perfection can negatively affect the life satisfaction and mental health of younger users (Bottaro & Faraci, 2022). Indeed, excessive use of new technologies may increase psychological distress in terms of loneliness, depression, anxiety, and insomnia (Nowland et al., 2018). The consequences of overusing mobile phone technologies are anxiety symptoms, insomnia, and addiction (Daraj et al., 2023).

Based on the research by Kelly et al. (2018), the percentage of adolescent males with clinically relevant symptoms slightly dropped from 7.4% to 6.8%, from zero hours of social networking site usage to 3 to 5 hours. The percentage only surged dramatically from 6.8% to 11.4% for the subsequent more than 5 hours of usage of social networking sites. This might suggest that appropriate and non-excessive usage of social networking sites may benefit users by relieving their emotional negativity. In contrast, among girls, greater duration spent corresponded to an increase in depressive symptom scores, similar to the result suggested by previous research (Yoon et al., 2019).

According to the research by Blasco et al. (2020), anxiety symptoms appear during the withdrawal syndrome of social network usage. Similar to chemical addiction, addictive users may feel emotional distress such as irritability, insomnia, dysphoric

mood and psychomotor agitation while going through withdrawal (Lerner & Klein, 2019). Thus, anxiety symptoms may be presented when social networks are not accessible as one of the presentations of social network addiction withdrawal syndrome.

Social networking sites nowadays promote fast and short information to their users so that they can perceive many messages in a very short period. However, with the continuous attention needed for the overwhelming volume of social demands from social media platforms, the users' energy will be consumed and cause fatigue. In further extension, social demands will be a stressor for individuals who need to cope with them (Lee et al., 2016). Information overload is a problem that is being exacerbated by the ongoing digitalisation of the world of work and the growing use of information and communication technologies (Arnold et al., 2023). Three dimensions of overload were identified: communication overload, system feature overload, and information overload.

For several reasons, studying the association between social network usage and mental health is important. It helps identify patterns in how social media usage affects mental health, such as trends in anxiety, depression, and other issues linked to online behaviour. It also provides insights into how different types of interactions, content, and platforms impact mental health, informing better practices and interventions. The study findings can guide the development of interventions and tools designed to help users manage their

social media usage and mitigate negative impacts. Moreover, the study can inform policymakers about the need for regulations or guidelines to promote healthier social media practices and protect users from harm. Studying these effects helps raise awareness among users about potential risks and benefits, encouraging more mindful and responsible social media usage. It also provides valuable information on how individuals can adjust their social media habits to support their mental well-being. Insights from the study can help mental health professionals understand the specific impacts of social media on their clients and

tailor therapeutic approaches accordingly. It aids in developing educational programs for clients to manage their social media usage and address related issues proactively.

Figure 1 shows the conceptual framework for this study on social network usage and its association with mental health. The components of mental health were depression, anxiety, and stress. There are modifiable and non-modifiable risk factors that influence mental health. Age, gender, race, educational level, occupation, and income are the non-modifiable risk factors in this study, while social networking is the modifiable risk factor.

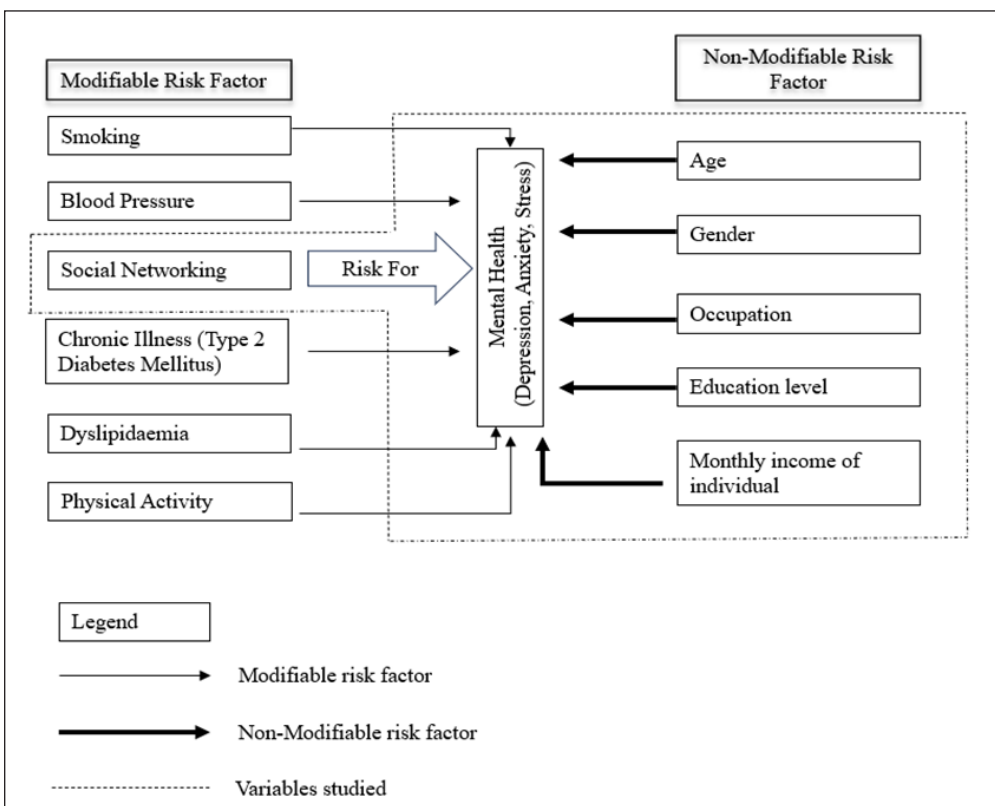


Figure 1. Conceptual framework

There were a few studies looking at the influence of social network usage on mental health among youths in Malaysia. However, these studies only focused on social network addiction (Khaw, 2024; Tan & Fauzi, 2024; Zulkifli & Abidin, 2023). It remains unclear if a relationship exists between the type of social network usage and depression, anxiety, and stress among youths in Malaysia. The recent status of social network usage among youths has not been explored. Different social media platforms have distinct features and usage patterns that may have different mental health impacts. Research often lumps them together, but examining how specific platforms (e.g., Instagram vs. Twitter) impact mental health differently could provide more nuanced insights. Therefore, the main aim of this study was to determine the association between social network usage and the mental health of youths in urban settings in Malaysia.

## **METHODOLOGY**

### **Study Design**

This is a cross-sectional study conducted among youths aged 18 to 30 years old who lived in the Klang Valley area of Malaysia. This study was conducted at Klang Valley because the location is highly urbanised and densely populated, with a diverse and tech-savvy population. This environment provides a rich context for studying social network usage patterns, digital behaviours, and their impact on mental health in a modern, urban setting. The region also has high internet and social media penetration

rates, making it an ideal location to study social networks and mental health.

### **Participants and Sampling**

The inclusion criteria for this study were youths between the ages of 18 and 30 years old and Malaysian citizens, while the exclusion criteria were living outside Malaysia during the period of data collection and diagnosed with mental health problems (a column box has been provided in the questionnaire asking the respondent if they were diagnosed with any mental health illness). The study focused on youths because young people are often among the most active users of social networks. Their frequent and intensive engagement with these platforms makes them a key demographic for studying the effects of social network usage on mental health and behaviour.

The respondents of this study were recruited via a snowball sampling method, whereby the Google form questionnaire was distributed using a link or a QR code. The respondents then pressed the link or scanned the QR code and responded to the questionnaire, which was then submitted to the researchers. Snowball sampling is effective for studying specific groups of populations that are difficult to capture. For studies focusing on networks or relationships (e.g., social networks), snowball sampling aligns well with the research objectives, as it directly leverages the participants' networks to gather relevant information. Snowball sampling is often most appropriate in exploratory research, particularly when

studying hard-to-reach populations, rather than when aiming to produce generalisable findings. However, it also has several limitations. Snowball sampling can lead to sampling bias because the initial participants often recruit individuals who are similar to themselves. This can result in a homogeneous sample that is not representative of the broader population. Due to the potential homogeneity of the sample, findings from studies using snowball sampling may not be generalisable to the larger population. This limits the external validity of the research. If the initial respondents are part of a specific network, reaching individuals outside that network, especially those from diverse or marginalised groups, may be challenging. The effectiveness of snowball sampling depends heavily on the willingness and ability of participants to refer others. If participants have limited social networks or are reluctant to share, the sample size may be small and not sufficiently diverse.

The sample size for this cross-sectional study was calculated using the Kish (1965) formula for prevalence study and the Fleiss (1981) formula for comparative cross-sectional study. For the sample size calculated using the Kish (1965) formula, the previous data provided by the Institute for Public Health (2020) in the National Health and Morbidity Survey (NHMS; 2019) showed that the largest sample size required based on the prevalence of depression, anxiety and stress was 295. Therefore, considering the sample size calculated by Fleiss's (1981) formula of 136 samples and Kish's (1965) formula of 295

samples and taking into consideration a 10% possible non-response rate, the final sample size required for this study was 325.

### **Instruments**

This study was conducted using a validated questionnaire. The questionnaire comprises three parts: the sociodemographic, Social Network Usage Questionnaire (SNUQ), and the Depression, Anxiety, and Stress Scale (DASS-21). The original SNUQ questionnaire was in English; however, it underwent forward and backward translation into the Malay language, in which it was forward translated by two high school teachers who are fluent in both languages, whereas the DASS-21 questionnaire has already been validated in both languages. A pilot test was then carried out among 43 Malaysian youths, whereby Cronbach's alpha was used to measure the internal consistency reliability among the items. Cronbach's alpha value of more than 0.8 indicates good reliability, whereas this study shows 0.805 for SNUQ and 0.945 for DASS-21. The Kaiser-Meyer-Olkin Measure test was also done using the pilot test data, which shows the KMO values of 0.606 for the SNUQ questionnaire and 0.769 for the DASS-21 questionnaire. The KMO values are larger than 0.6, indicating that the sampling is adequate and the data is suitable for factor analysis.

### **Procedure**

The questionnaire consists of three sections. The first section focused on the respondents' sociodemographic characteristics (five

items); the second section focused on social media usage using the Social Network Usage Questionnaire (23 items); and the third section focused on mental health status using the DASS-21 (21 items).

For the SNUQ questionnaire, types of social media usage, total hours of usage in a day, and purpose of social media usage were asked. For the types of social media usage, respondents answered “yes” or “no” from the list of social media provided, which includes Facebook, Twitter, TikTok, Snapchat, WhatsApp, Instagram, YouTube, and Telegram. For the total hours of usage in a day, respondents were required to label the type of social media used and how many hours they spent on it in a day. For social media usage, the items used a 5-point Likert scale ranging from 1 to 5, where it was further subdivided into academic (six items), socialisation (six items), entertainment (three items), informativeness (two items), and constraint (four items). Each of the 5-point Likert scale was indicated as never (1), rarely (2), sometimes (3), often (4), and always (5). Therefore, the higher the score, the more the addiction of respondents to social media. In the descriptive analysis, the purpose of using social networks was reported as either for entertainment, informativeness, academic, or socialisation. The constraint of using social media was also highlighted.

For the DASS-21 questionnaire, each domain of depression, anxiety and stress used a 4-point Likert scale ranging from 0 to 3. Each of the domains (depression, anxiety, and stress) has a total of 7 questions,

summing up to 21 questions. The answer “0” indicates that the question does not apply to the respondent at all; the answer ‘1’ indicates that the question is applied to the respondent to a certain degree; the answer “2” indicates that the question is applied to the respondent to a considerable degree, and the answer “3” indicates that the question is applied to the respondent completely. Therefore, the higher the score, the higher the probability that the respondents have depression, anxiety, and stress, and it can be interpreted as mild, moderate, severe, or extremely severe.

### **Data Analysis**

Data collected in this study were analysed using the Statistical Package for Social Sciences (SPSS) version 20. Descriptive analysis was done to analyse the frequency and percentages, as well as the central tendency values. A normality test was carried out to determine whether the data was normally distributed or not. If the data was skewed, the median and interquartile range were used for the result, and if the data was normally distributed, the mean and standard deviation were used. The bivariate analysis was carried out using the Pearson correlation analysis and independent t-test to identify the association between the independent variables (sociodemographic and social network usage) and the dependent variable (mental health). For the multivariate analysis, multiple linear regression was carried out to identify the determinants of mental health. To ensure the credibility of the data in an online survey, we used



a validated questionnaire, calculated the sample size to ensure adequate samples, and used unique identifiers to prevent respondents from taking the survey multiple times. In the data cleaning process, we identified and removed the outliers to avoid errors or deliberate manipulation.

### **Ethical Considerations**

The Universiti Kebangsaan Malaysia Research and Ethics Committee approved the study. Participants' informed consent was obtained, and the confidentiality of information was secured. All respondents were invited to participate in the study through a link sent via social media, which includes WhatsApp and Instagram. The link provided by the researcher was further distributed to other participants within their own connections and networks. Before answering the questions in the questionnaire, the respondents first encountered the consent and nature of the study page, where the purpose was explained in detail, and consent was obtained. If they agree, they are able to proceed to answer all the questions. If consent was not provided, they were allowed to exit the page and not recruited as respondents.

### **RESULTS**

Table 1 shows the demographic data of the respondents. A total of 288 youths were recruited for this research. Meanwhile, for the total hours of media usage, the data gathered was from 287 respondents, while for the monthly individual income, the data gathered was from 286 respondents. The

respondents' mean (SD) age was 23.24 (1.78) years old. The median total hours of media usage were 5.00 hours, with 25th and 75th percentile of 4.00 and 8.00 hours, respectively. The median individual income was RM 0, with 25th and 75th percentile of RM 0 and RM 100, respectively.

### **Type of Social Media Usage**

Most of the respondents in this study used multiple social networking sites (SNS) concurrently. The total number of Facebook users was 146 (50.7%), Twitter users were 170 (53.5%), Snapchat users were 81 (28.1%), Instagram users were 270 (93.8%), Telegram users were 183 (63.5%), YouTube users were 260 (90.3%), and WhatsApp users were 277 (96.2%).

### **Purpose of Social Media Usage and Constraints in Using Social Network**

Table 2 shows that the respondents' highest percentage of SNS usage purpose was for entertainment (95.1%), followed by informativeness (89.2%), academic (87.5%), and socialisation (85.8%). Most respondents (41.0%) sometimes experienced constraints in using social media networks. A significant percentage of the respondents were identified to have a severe and extremely severe form of depression (15.3%), anxiety (22.5%), and stress (10.1%). The mean levels of depression, anxiety, and stress were 1.86 (SD=1.33), 2.19 (SD=1.49), and 1.65 (SD=1.13), respectively. According to Lovibond and Lovibond (1995), these mean scores are interpreted as a mild level of depression, anxiety and stress.

Table 1  
Demographic data of respondents

Variables	Frequency (N=288)	Percentage (%)	Mean	Standard deviation	Median	Percentile	
						25 <sup>th</sup>	75 <sup>th</sup>
<b>Age (years old)</b>							
18–21	35	12.1	23.24	1.78			
22–24	216	75.0					
25–27	25	8.7					
28–30	12	4.2					
<b>Gender</b>							
Female	189	65.6					
Male	99	34.4					
<b>Race</b>							
Malay	158	54.8					
Indian	65	22.6					
Chinese	55	19.1					
Others	10	3.5					
<b>Occupation</b>							
Student	225	78.1					
Private Sector	47	16.3					
Unemployed	7	2.4					
Self-employed	5	1.7					
Government Sector	4	1.5					
<b>Educational Level</b>							
Degree	236	81.9					
Diploma	24	8.3					
High School	20	6.9					
Master or PhD	8	2.9					
Monthly Individual Income (RM)					0	0	1,000.00
Total Hours of Social Media Usage (All Types) in a Day					5.00	4.00	8.00

Table 2

Level of social network usage, constraints in using social networks and mental health status among the respondents

Purpose of SNS Usage	Social network usage (SNS) Frequency (%) (N=288)					Frequency scores	
	Never	Rarely	Sometimes	Often	Always	Mean	Standard deviation
Academic	6 (2.1)	30 (10.4)	108 (37.5)	107 (37.2)	37 (12.8)	3.82	0.81
Socialisation	7 (2.4)	34 (11.8)	122 (42.4)	96 (33.3)	29 (10.1)	3.73	0.77
Entertainment	2 (0.7)	12 (4.2)	78 (27.1)	128 (44.4)	68 (23.6)	3.80	0.81
Informativeness	2 (0.7)	29 (10.1)	111 (38.5)	101 (35.1)	45 (15.6)	4.14	0.75
Constraints in using SNS	20 (7.0)	75 (26.0)	118 (41.0)	55 (19.1)	20 (6.9)	3.23	0.92
Psychological Distress Symptoms	Normal	Mild	Moderate	Severe	Extremely severe	Mean	Standard deviation
Depression	185 (64.2)	25 (8.7)	34 (11.8)	20 (7.0)	24 (8.3)	1.86	1.33
Anxiety	159 (55.2)	16 (5.6)	48 (16.7)	28 (9.7)	37 (12.8)	2.19	1.49
Stress	200 (69.4)	29 (10.1)	30 (10.4)	18 (6.3)	11 (3.8)	1.65	1.13

**Social Media Usage and Mental Health**

Table 3 shows the association between social networking site usage and the mental health of the respondents. The findings showed that TikTok usage was significantly associated with the level of anxiety ( $p = 0.033$ ). The respondents who used TikTok

showed a higher anxiety level (mean = 2.30, SD = 1.7) compared to respondents who did not use TikTok (mean = 1.97, SD = 1.36;  $p < 0.001$ ). Otherwise, there was no significant association between other social media usage and other psychological distress symptoms.

Table 3

Social networking site usage and its association with mental health

Social networking sites	Mental health status (N=288)				
	Usage	Frequency	Mean	Standard deviation	p-value
TikTok	No	118	1.97	1.36	0.033*
	Yes	170	2.35	1.57	
Level of depression	No	118	1.81	1.34	0.530
	Yes	170	1.91	1.33	
Level of stress	No	118	1.51	1.02	0.070
	Yes	170	1.75	1.19	

Table 3 (continue)

Social networking sites	Mental health status (N=288)				
	Usage	Frequency	Mean	Standard deviation	p-value
<b>Facebook</b>					
Level of anxiety	No	142	2.27	1.52	0.370
	Yes	146	2.11	1.47	
Level of depression	No	142	2.01	1.42	0.610
	Yes	146	1.72	1.22	
Level of stress	No	142	1.70	1.19	0.708
	Yes	146	1.60	1.07	
<b>Twitter</b>					
Level of anxiety	No	134	2.13	1.48	0.525
	Yes	154	2.25	1.51	
Level of depression	No	134	1.87	1.39	0.990
	Yes	154	1.86	1.29	
Level of stress	No	134	1.60	1.14	0.465
	Yes	154	1.69	1.13	
<b>Snapchat</b>					
Level of anxiety	No	207	2.14	1.41	0.407
	Yes	81	2.32	1.69	
Level of depression	No	207	1.84	1.31	0.636
	Yes	81	1.93	1.39	
Level of stress	No	207	1.63	1.09	0.629
	Yes	81	1.70	1.23	
<b>WhatsApp</b>					
Level of anxiety	No	11	2.00	1.34	0.635
	Yes	277	2.20	1.50	
Level of depression	No	11	2.09	1.45	0.606
	Yes	277	1.86	1.33	
Level of stress	No	11	1.27	0.90	0.191
	Yes	277	1.66	1.14	
<b>Instagram</b>					
Level of anxiety	No	18	2.00	1.53	0.584
	Yes	270	2.21	1.49	
Level of depression	No	18	2.28	1.56	0.258
	Yes	270	1.84	1.31	
Level of stress	No	18	1.89	1.32	0.434
	Yes	270	1.63	1.12	
<b>YouTube</b>					
Level of anxiety	No	28	2.43	1.57	0.411
	Yes	260	2.17	1.49	

Table 3 (continue)

Social networking sites	Mental health status (N=288)				
	Usage	Frequency	Mean	Standard deviation	p-value
Level of depression	No	28	2.21	1.60	0.224
	Yes	260	1.83	1.30	
Level of stress	No	28	1.64	1.28	0.978
	Yes	260	1.65	1.11	
<b>Telegram</b>					
Level of anxiety	No	105	2.31	1.51	0.307
	Yes	183	2.13	1.48	
Level of depression	No	105	1.95	1.38	0.405
	Yes	183	1.81	1.31	
Level of stress	No	105	1.69	1.12	0.678
	Yes	183	1.63	1.14	

Note. \*Significant at p<0.05

**Purpose of Social Network Usage and Mental Health**

Table 4 shows a correlation analysis between the purpose of social network usage and mental health. The respondents’

levels of depression ( $r=0.239, p<0.001$ ), anxiety ( $r=0.257, p<0.001$ ) and stress ( $r=0.260, p<0.001$ ) were positively correlated with the level of constraint in using social networks.

Table 4

Correlation between the purpose of social network usage and mental health

Purpose of Social Network Usage	Statistical value	Mental health status (N=288)		
		Level of anxiety	Level of depression	Level of stress
Academic	Pearson correlation coefficient ( <i>r</i> )	0.033	-0.073	0.041
	<i>p</i> -value (2-tailed)	0.576	0.219	0.493
Socialisation	Pearson correlation coefficient ( <i>r</i> )	-0.014	-0.029	-0.024
	<i>p</i> -value (2-tailed)	0.816	0.622	0.684
Entertainment	Pearson correlation coefficient ( <i>r</i> )	-0.013	-0.037	-0.022
	<i>p</i> -value (2-tailed)	0.824	0.532	0.715
Informativeness	Pearson correlation coefficient ( <i>r</i> )	0.020	-0.030	-0.004
	<i>p</i> -value (2-tailed)	0.735	0.612	0.944
Constraint	Pearson correlation coefficient ( <i>r</i> )	0.239	0.257	0.260
	<i>p</i> -value (2-tailed)	<0.001*	<0.001*	<0.001*

Note. \*Correlation is significant at *p*-value <0.05 (2-tailed)

### Determinants of Mental Health

Table 5 shows the multiple linear regression analyses to identify the determinants of mental health status among Malaysian youths in Klang Valley.

A multiple linear regression analysis to predict the level of anxiety identified that the constraint in using social networks, TikTok usage, and monthly individual income (RM) were the significant predictors of anxiety level among the respondents, with an adjusted R square of 0.78. The equation to predict the level of anxiety is as follows:

$$\text{Level of Anxiety} = 0.604 + (0.384 \times \text{Constraint in using social network}) + (0.377 \times \text{TikTok usage}) + (0.0001 \times \text{Monthly individual income})$$

The equation can be interpreted as an increase in 1 unit of constraint in using social networks and an increase in RM 1 of monthly individual income will increase 0.384 unit and 0.0001 unit of anxiety level, respectively, among the respondents.

A multiple linear regression analysis to predict the level of depression identified that the constraint in using social networks was the only significant predictor of depression level among the respondents, with an adjusted R square of 0.63. The equation to predict the level of depression is as follows:

$$\text{Level of Depression} = 0.650 + (0.374 \times \text{Constraint in using a social network})$$

Table 5  
Multiple linear regression analysis to identify the determinants of anxiety, depression, and stress among the respondents

Model	Unstandardised coefficients		Standardised coefficients	t-value	p-value	95% confidence interval	
	B	Std. Error	Beta			Lower	Upper
<b>Determinants of anxiety</b>							
Constant	0.604						
Constraints in using social network	0.384	0.093	0.235	4.140	<0.001*	0.202	0.567
TikTok usage	0.377	0.173	0.124	2.186	0.030*	0.038	0.717
Monthly individual income (RM)	<0.001	<0.001	0.136	2.399	0.017*	<0.001	<0.001
<b>Determinants of depression</b>							
Constant	0.650						
Constraints in using social network	0.374	0.083	0.257	4.496	<0.001*	0.210	0.537
<b>Determinants of stress</b>							
Constant	0.610						
Constraints in using social network	0.320	0.070	0.260	4.545	<0.001*	0.181	0.458

Note. \*Significant at p-value <0.05 (2-tailed)

The equation can be interpreted as an increase of 1 unit of constraint in using a social network, increasing the depression level among the respondents by 0.374 units.

A multiple linear regression analysis to predict the level of stress identified that the constraint in using social networks was the only significant predictor of stress level among the respondents, with an adjusted R square of 0.67. The equation to predict the level of stress is as follows:

$$\text{Level of Stress} = 0.610 + (0.320 \times \text{Constraint in using a social network})$$

The equation can be interpreted as an increase of 1 unit of constraint in using the social networks will increase 0.320 units of stress level among the respondents.

## DISCUSSION

The surge in social network usage and mental health issues among youths in Klang Valley was the basis of this study. The Social Network Usage Questionnaire (SNUQ) was used to measure the status of social network usage, and the Depression, Anxiety and Stress Scale-21 Items (DASS-21) was used to assess the depression, anxiety, and stress levels of the respondents. The prevalence of depression, anxiety and stress among the respondents was 35.2%, 44.8% and 30.6%, respectively, with 15.3% (depression), 22.5% (anxiety), and 10.1% (stress) showing a severe and extremely severe form. The prevalence of mental health issues in this study was lower compared to some previous

studies. The study by Wong et al. (2023) showed that the prevalence of moderate to severe depression, anxiety and stress was 53.9%, 66.2% and 44.6%, respectively, among university students in Selangor. However, the trend of our findings showed that the highest prevalence of mental health issues among Malaysian youths was anxiety, followed by depression and stress. Several previous studies also showed the same pattern in which a study by Fuad et al. (2015) reported that the prevalence of depression, anxiety, and stress among medical students at a private medical university in Malaysia was 60.0%, 76.0% and 47.0%, respectively. Data analysis by Shamsuddin et al. (2023) showed that among all 506 respondents, 27.5% had moderate depression, 9.7% had severe or extremely severe depression, 34.0% had moderate anxiety, and 29.0% had severe or extremely severe stress.

A study by Seedat et al. (2009) showed that women had more anxiety-mood disorders than men, and men had more externalising-substance disorders than women in all cohorts and countries. This contradicted our study in which the ratio of female to male was roughly 2:1. Despite that, the relationship between gender and the three constructs of mental health problems, namely depression ( $p = 0.30$ ), anxiety ( $p = 0.54$ ) and stress ( $p = 0.554$ ) was not significant. In a previous study by Viertiö et al. (2021), it was reported that women were more distressed than men, with most of the other variables exhibiting a statistically significant gender difference. However, the study found no gender difference for

the variables living alone, having school-age children, or being active in societies and hobby groups. This could justify our findings, where most respondents were undergraduate students and unemployed. The finding could be biased as it does not reflect the mental health of those youths who are working and married.

Our analysis found that the median hour of social network usage among the respondents was 5 hours a day (Q1, Q3: 4, 8). The most popular purpose of social network usage among the respondents was for entertainment (95.1%), followed by informativeness (89.2%), academic (87.5%), and socialisation (85.8%). This finding is comparable to the study by Tariq et al. (2012), which also revealed that among the respondents, entertainment accounted for the highest purpose of social network usage (91.9%), followed by informational purpose (84.2%), academic purpose (78.1%), and social purpose (77.9%; Al-Dwaikat et al., 2020).

Our study showed that the duration we spent on social networks does not influence the mental health among Malaysian youths, which includes depression ( $p = 0.978$ ), anxiety ( $p = 0.840$ ) and stress ( $p = 0.246$ ). In a previous study, it was found that neither the quantity of "selfies" or online friends posted on social media nor the amount of time spent on it were linked to depression (Marwick & Boyd, 2014). Similarly, Neira and Barber (2014) found that there was no association between the frequency of social media usage and sad mood, even though a rise in social media investment (such

as active social media usage) predicted depressive symptoms in teenagers.

Individual income plays a significant role in the level of anxiety among youths ( $p = 0.025$ ). Most of the respondents in our study showed an income of less than RM 2,500, with most of them being 23 years old or younger. The level of income reported in our study is logical since the respondents are still studying in higher education, and most were undergraduate students (81.9%). There was no consistent evidence that individual income is significantly associated with mental health. However, Thomson et al. (2022) indicated that income likely plays a role in influencing mental health and overall well-being despite the limitations in the available evidence. Furthermore, this connection appears to be more pronounced among individuals experiencing poverty or residing in low- and middle-income countries. Policymakers should create income and welfare strategies to ensure sufficient financial support for those facing socioeconomic challenges and promote mental health.

Levels of mental health in all categories, which are depression, anxiety, and stress, were shown to be affected by individuals who were having constraints when using social networks. However, there was no significant association between mental health and social media usage for academics, entertainment, information, and socialisation. Thus, the incidence of depression, anxiety, and stress among Malaysian youths was higher among those who feel constrained when using social networks. A study demonstrated an



inverse correlation between increased usage of electronic media beyond a few hours per week and self-reported happiness, life satisfaction, and self-esteem in adolescents (Abi-Jaoude et al., 2020). On the contrary, there was a positive correlation when engaging in offline activities such as in-person social interactions, sports, print media, homework, religious services, and paid work exhibited psychological well-being. In another study, there was a high suicide and depression rate among adolescent girls associated with spending more than 2 hours daily on social networking platforms and personal electronic devices (Abi-Jaoude et al., 2020). Therefore, comparing both studies with our study, it is shown that one of the reasons why mental health has been on the negative side of social media influence is because individuals feel constrained when using it.

Based on our analysis, it was shown that anxiety, depression, and stress mean scores were higher among respondents who used TikTok (2.35 (SD=1.57), 1.91 (SD=1.33), 1.75 (SD=1.19), respectively), as compared to respondents who did not use TikTok (1.97 (SD=1.36), 1.81 (SD=1.34), 1.51 (SD = 1.02), respectively). In addition, anxiety level was significantly higher among TikTok users compared to non-TikTok users ( $p=0.033$ ). Based on Prasad et al. (2023), usage patterns, whether passive (such as watching content, appearance-based activities, night-time media consumption) or active (such as cyberbullying and sexting), as well as emotional investment and problematic social media usage (PSMU), could predict poor mental health outcomes.

Increased usage of social network filters that alter facial features and retouch body parts may contribute to poor mental health outcomes. Additionally, influencers and social network users used lighting hacks and photo and video editing before posting their content. This leads to an altered image of the work and reality, influencing people to have picture-perfect bodies and flawless features (Prasad et al., 2023). Hawes et al. (2020) suggested that appearance-based activities can lead to psychological distress due to judging one's physique, body dissatisfaction, eating disorders, depression, and anxiety disorders. Youths may face difficulty accepting their flaws in reality and constantly be anxious because they are worried and concerned about having a perfect body image as the influencers in social networks (Hosseini & Padhy, 2023). This can push individuals to develop anxiety and body dysmorphia, which eventually lead to depression and self-harm.

Cyberbullying in social media usage can contribute to anxiety and other mental health issues. Hellfeldt et al. (2019) suggested that depression and anxiety symptoms were significantly high in both the victims of cyberbullying (cyber-victims) and in people who are bullied whilst bullying others at the same time (cyber-bully victims). Cyberbullying is widespread in social networks such as TikTok. Cyberbullying can be in the form of verbal abuse under the comment section or direct posting of videos to discriminate against someone on social media platforms (Hellfeldt et al., 2019). Apart from all the negative effects

of TikTok on mental health, a randomised clinical trial done on TikTok browsing and preoperative anxiety relief showed that browsing TikTok reduced participants' blood pressure and anxiety significantly (Gu et al., 2021). Therefore, there could be a possibility that using TikTok can relieve anxiety by watching the video's contents.

In our study, the level of anxiety among youths plays the most impactful role in mental health compared to depression and stress since the majority of the determinants of mental health are due to youths' usage of a specific social media, namely TikTok, their monthly individual income, as well as feeling constraint in using social media. In another similar study by Kelly et al. (2018), the researchers were able to concurrently examine four proposed mechanisms: online harassment, sleep duration and quality, self-esteem, and body perception. These are suggested to be links between social media usage and the mental well-being of young individuals. The research was able to comprehensively explore multiple potential pathways in this manner. Even though the conclusions were predominantly drawn from cross-sectional data, the usage of path modelling allowed for explicit testing of presumed causal pathways, bolstering the results. However, in addition to the inherent cross-sectional nature of the study, there are specific limitations due to data availability that prevented it from considering certain factors hypothesised to be along the pathway connecting social media usage and adverse mental health.

## CONCLUSION

The prevalence of depression, anxiety, and stress among youths in Klang Valley were 35.2%, 44.8% and 30.6%, respectively, where a significant percentage of them showed a severe and extremely severe form of depression (15.3%), anxiety (22.5%), and stress (10.1%). Among the demographic factors, the monthly income of an individual has a significant association with anxiety. Levels of constraints in using social networks were associated with depression, anxiety, and stress. Among the social networks, TikTok users showed a higher anxiety score, while depression and stress have no association with social networks.

The conclusions drawn in this study are based on a non-random sample of participants who were selected through snowball sampling. Due to the non-random sampling method, the results may not be generalisable to the broader population. The findings are specific to the respondents studied. While the results provide valuable insights into mental health status and its association with social network usage, they should be interpreted with caution due to the limited scope of the respondents. Future research using random sampling methods is needed to confirm these findings and to determine their applicability to a wider population. Given that the sample was drawn from snowball sampling, the findings are particularly relevant to this context and may not reflect experiences in other settings.

In summary, depression, anxiety, and stress are quite prevalent among youths in

this study. Social networking may not be the leading cause of mental health problems, but it can make a substantial contribution to virtually every health concern, such as aggression, sex, drugs, obesity, self-image and eating disorders, depression and suicide, and even learning disorders and academic achievement. Most respondents were students (78.1%); hence, deterioration of mental health is a serious concern because they are still young. This can affect their studies and bring their performance down in tertiary education, and this could affect their future career as well.

### **Limitations and Recommendations for Future Research**

One of the limitations of this study is that the study findings cannot be generalised to youths in other areas and may not be representative of the broader population. This is because the respondents were recruited via snowball sampling, a non-probability sampling. In snowball sampling, the recruitment of respondents depends on the personal networks and preferences of the initial contacts. Snowball sampling often leads to a more homogenous sample than the general population. Since respondents tend to recruit people similar to themselves, they may lack diversity in terms of demographic or behavioural characteristics. Since our study used online surveys (Google form), it is only accessible to individuals with internet access. This may exclude certain demographics, such as low-income individuals and non-users.

Following the findings of this study, it is recommended that the individuals affected

by severe and extremely severe forms of depression, anxiety and stress should be identified and need to be advised personally on seeking professional help such as from the counsellor, psychologist, or psychiatric clinic. Future studies should focus on exploring cost-effective intervention methods to alleviate mental health problems among young people. It is important to help these individuals to make sure there is no significant deterioration in their occupational, social, and other important areas of functioning. Taking good care of our mental health is as vital as keeping our physical health. Both mental and physical health are important to maintain a good quality of life.

In order to prevent mental health issues, mental health education should be integrated into school curriculum and workplace training to increase awareness and reduce stigma. Media and community outreach can be used to educate the public about mental health, promote early help-seeking behaviours, and challenge misconceptions. Training in stress management, emotional regulation, and problem-solving skills can be provided. Training programmes can be offered in schools, workplaces, and community centres. Mindfulness, meditation, and relaxation techniques can be taught to help individuals manage stress and build resilience. Community activities, support groups, and social programs could encourage strong social connections. Family-based programs can be offered to teach communication skills, conflict resolution, and supportive parenting techniques. Regular physical activity can

be promoted, which has been shown to have positive effects on mental health. The importance of a balanced diet and adequate sleep for mental well-being can be taught. Mental health resources, such as counselling services and crisis hotlines, need to be readily accessible to those in need. Mental health apps and online resources that offer support and guidance need to be developed and promoted. Regular mental health screenings in schools, workplaces, and healthcare settings should be implemented to identify at-risk individuals early. Groups at higher risk, such as adolescents, individuals with a family history of mental illness, and those experiencing significant life stressors, should be given more attention.

In addition, early access to counselling and therapeutic interventions for individuals showing early signs of mental health issues should be provided. Cognitive-Behavioural Therapy (CBT) and other evidence-based therapies that have been proven effective in addressing early symptoms and preventing the escalation of mental health problems can be utilised. Specialised teams trained to handle mental health crises and emergencies, as well as personalised treatment plans based on the individual's specific needs and circumstances, can be developed. We should regularly assess the effectiveness of interventions and adjust treatment plans as needed. We also should involve family members in the treatment process to provide a supportive environment and address family dynamics that may contribute to mental health issues. Training can be offered for parents to help them recognise signs

of mental health problems and provide appropriate support. Mental health services should be affordable and accessible to all individuals, regardless of socioeconomic status. We must maintain confidentiality and protect the privacy of individuals seeking help to encourage early intervention and reduce stigma. By implementing these preventive strategies and early interventions, we can effectively address mental health issues before they escalate, improve overall well-being, and reduce the burden on individuals and society.

For future research, it would be beneficial to explore the type of content that the respondents engage with on social media. Content ranging from positive messages to cyberbullying or harmful content can have varying effects on mental well-being. In addition, examining how social media usage compares to offline interactions in terms of its impact on mental health could provide a more nuanced perspective. Understanding whether social media exacerbates existing mental health issues or serves as a coping mechanism is important to explore. It is also useful to conduct a longitudinal study to track changes in social media usage and mental health outcomes over time. This could establish a more robust cause-and-effect relationship. This would also help to determine whether changes in social media habits lead to changes in mental health status. It is interesting to explore other age groups and occupations and observe how mental health issues manifest across various demographics.

### **Implication for Theory and Practice**

The relationship between social networks and mental health has significant implications for both theory and practice.

For the theory implication, the association between social network usage and mental health is complex and influenced by various theories. The two most relevant theories are Social Learning Theory (Bandura & Walters, 1977) and Social Support Theory (Sarason, 2013). In Social Learning Theory, Bandura and Walters (1977) posit that people learn behaviours through observing others. Social networks provide a platform for observing and imitating behaviours and attitudes, which can impact mental health positively or negatively depending on what is modelled. In Social Support Theory, social networks can offer emotional support, practical help, and social interaction. High levels of perceived social support from online networks can enhance well-being, but superficial or low-quality interactions may not provide the same benefits. Another relevant theory is Social Comparison Theory (Festinger, 1954), in which individuals determine their own social and personal worth based on how they compare themselves to others. This process of comparison helps individuals understand where they stand in relation to their peers in terms of abilities, attitudes, and characteristics.

The use of platforms like TikTok plays a role in influencing anxiety levels, as seen in the study. Young users may observe content that amplifies social comparisons, triggering stress and mental health issues.

From a social learning perspective, young people may adopt behaviours (like excessive content consumption) or emotional states (such as anxiety) because they observe their peers or influencers engaging heavily with the platform. The high usage of social media (median of 5 hours per day) could also be seen as a learned behaviour that is normalised through social reinforcement, modelling the idea that high engagement with platforms is typical or expected, even if it leads to stress or anxiety. Social Learning Theory emphasises the role of attention and retention, meaning that young users may focus more on content that triggers negative emotions (e.g., unrealistic portrayals of success or beauty), which they then internalise, leading to heightened anxiety or depressive symptoms. The constraint in using social media in this study was strongly correlated with depression and stress. Users who feel restricted or controlled in their online behaviour may be experiencing indirect stress from observing others who have more freedom online. Social Learning Theory suggests that seeing others use social media freely might increase the emotional burden on those who feel constrained, worsening their mental health.

From the perspective of Social Support Theory, the finding that higher constraint in social media usage correlates with depression and stress implies that some individuals may not be receiving the needed emotional support or may feel disconnected from supportive interactions, leading to negative mental health outcomes. The fact that TikTok usage is linked to higher anxiety

levels (mean score of 2.35 vs. 1.97 for non-users) suggests that while these platforms provide exposure to large networks, they might not be fostering the quality of social support needed to buffer against anxiety. Anxiety, which is correlated with higher individual income and constraints in social media usage, could indicate that social media is fostering competition or pressure rather than providing a supportive environment. Instead of emotional reassurance or social validation, users may feel overwhelmed by unrealistic standards or the need to maintain a certain online image. It becomes clear in Social Support Theory that while social media offers the potential for support, it is not functioning effectively as a source of emotional, informational, or instrumental support for many of the youths in this study. Instead, it may be exacerbating issues like anxiety due to the pressure of social comparisons and a lack of meaningful interactions. Addressing the gap in social support, both online and offline, could be key to improving the mental health of these youths.

From the perspective of Social Comparison Theory, the study indicates that anxiety was positively correlated with TikTok usage. This can be understood through upward social comparison. TikTok, a platform known for showcasing curated, idealised lifestyles, might lead users to compare themselves to influencers or peers who appear to have more success, beauty, or wealth. The platform encourages the consumption of short, impactful videos often portraying people's best moments, leading

viewers to constantly compare themselves to these seemingly perfect portrayals. This could increase feelings of inadequacy, contributing to heightened anxiety. The study also shows that depression and stress are positively correlated with feelings of constraint in using social media. Social Comparison Theory would suggest that individuals who feel constrained (e.g., unable to fully participate in or access social media platforms) may experience stress from being unable to present themselves in an ideal way or keep up with their peers. This leads to negative emotions as they compare their restricted access with those who seem to freely enjoy and thrive on these platforms. Feeling limited in social media engagement could increase the intensity of upward comparisons, as individuals are not only comparing themselves to those better off but also aware of their limitations in participating in the same social arenas.

The 5 hours of median daily social media use in this study provides ample opportunity for exposure to others' lives, creating frequent opportunities for comparison. Whether users engage in upward or downward comparisons, the sheer volume of exposure can heighten their mental health issues. The study's finding that anxiety is associated with TikTok usage and constraint in social media usage suggests that negative emotions triggered by constant comparison and limitations in self-presentation play a significant role in shaping mental health outcomes among the youths in this study. Through the lens of Social Comparison Theory, the study's

findings suggest that the mental health issues associated with social media use, such as anxiety, depression, and stress, are deeply rooted in the frequent upward and lateral comparisons made by youths on platforms like TikTok. The pressure to measure up to others' curated lives and feelings of constraint in how they can participate online amplifies these negative effects. Addressing these social comparisons through education, support, and awareness is key to mitigating the impact of social media on the mental health of young people in Malaysia.

The study finding shows that only TikTok influenced the anxiety level of the respondents, and none of the social media usage influenced depression and stress levels. This could be due to the unique nature of the platform's content and user interaction patterns, which foster social comparison and engagement. TikTok's format is built around short, engaging videos (often 15-60 seconds long), which allows users to consume large volumes of content in a short time. This fast-paced, continuous scrolling experience can contribute to information overload, where the brain is overwhelmed by the number of stimuli. Information overload tends to lead to anxiety because the brain is constantly trying to process an overwhelming amount of input. This overstimulation can induce a sense of urgency and heightened alertness, which is characteristic of anxiety but might not necessarily trigger feelings of depression or chronic stress, which are generally linked to longer-term emotional exhaustion or hopelessness. TikTok's algorithm curates content based on user engagement, often

pushing viral or trending videos that feature idealised lifestyles, physical appearances, or achievements. Young users may experience constant upward social comparison when viewing content from influencers or peers who seem to be more successful, attractive, or popular. These comparisons can lead to anxiety, as users might feel pressure to achieve similar social success or live up to the standards they see on the platform. This constant pressure to "keep up" with what they see can foster fear of missing out (FOMO) or worries about not measuring up, both of which are anxiety-inducing.

For the implications for practice, practitioners should focus on enhancing digital literacy, teaching individuals how to navigate social networks healthily, manage online interactions, and recognise the impact of social media on mental health. Interventions should address both online and offline aspects of mental health. Strategies might include promoting healthy online behaviours, managing screen time, and developing coping mechanisms for dealing with negative online experiences. Effective mental health support systems should integrate online and offline resources. This includes creating spaces for meaningful online support and ensuring that digital tools complement traditional mental health services. Policymakers should consider regulations around social media platforms to protect users' mental health. This may involve guidelines for content moderation, privacy protections, and tools to manage digital well-being. Initiatives can be developed to encourage positive online interactions, such

as promoting supportive online communities and providing tools for users to engage in healthy social comparisons. Given the diverse impacts of social networks, interventions should be tailored to different demographic groups, considering factors such as age, socioeconomic status, and cultural background. Ongoing research is essential to understand the evolving relationship between social networks and mental health. Evaluating the effectiveness of interventions and policies can help refine approaches and improve outcomes.

Addressing these implications can better equip both theoretical and practical frameworks to handle the challenges and opportunities presented by the intersection of social networks and mental health.

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## REFERENCES

- Abi-Jaoude, E., Naylor, K. T., & Pignatiello, A. (2020). Smartphones, social media usage and youth mental health. *Canadian Medical Association Journal*, *192*(6), E136-E141. <https://doi.org/10.1503/cmaj.190434>
- Al-Dwaikat, T., Aldalaykeh, M., Ta'an, W., & Rababa, M. (2020). The relationship between social networking sites usage and psychological distress among undergraduate students during COVID-19 lockdown. *Heliyon*, *6*(12), Article e05695. <https://doi.org/10.1016/j.heliyon.2020.e05695>
- Anderson, M., Faverio, M., & Gottfried, J. (2023, December 11). *Teens, social media and technology 2023: YouTube, TikTok, Snapchat and Instagram remain the most widely used online platforms among U.S. teens*. Pew Research Center. [https://www.pewresearch.org/wp-content/uploads/sites/20/2023/12/PI\\_2023.12.11-Teens-Social-Media-Tech\\_FINAL.pdf](https://www.pewresearch.org/wp-content/uploads/sites/20/2023/12/PI_2023.12.11-Teens-Social-Media-Tech_FINAL.pdf)
- Arnold, M., Goldschmitt, M., & Rigotti, T. (2023). Dealing with information overload: A comprehensive review. *Frontiers in Psychology*, *14*, Article 1122200. <https://doi.org/10.3389/fpsyg.2023.1122200>
- Bandura, A., & Walters, R. H. (1977). *Social learning theory*. Prentice Hall.
- Blasco, R. L., Cosculluela, C. L., & Robres, A. Q. (2020). Social network addiction and its impact on anxiety level among university students. *Sustainability*, *12*(13), Article 5397. <https://doi.org/10.3390/su12135397>
- Bottaro, R., & Faraci, P. (2022). The usage of social networking sites and its impact on adolescents' emotional well-being: A scoping review. *Current Addiction Reports*, *9*, 518-539. <https://doi.org/10.1007/s40429-022-00445-4>
- Daraj, L. R., AlGhareeb, M., Almutawa, Y. M., Trabelsi, K., & Jahrami, H. (2023). Systematic review and meta-analysis of the correlation coefficients between nomophobia and anxiety, smartphone addiction, and insomnia symptoms. *Healthcare*, *11*(14), Article 2066. <https://doi.org/10.3390/healthcare11142066>
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, *7*(2), 117-140. <https://doi.org/10.1177/001872675400700202>
- Fleiss, J. L. (1981). *Statistical methods for rates and Proportions*. John Wiley and Sons Incorporation.
- Fuad, M. D., Al-Zurfi, B. M. N., Abdelqader, M. A., Bakar, M. F. A., & Ismail, M. F. (2015). Prevalence and risk factors of stress, anxiety and



- depression among medical students of a private medical university in Malaysia. *Education in Medicine Journal*, 7(2), e52-e59. <https://doi.org/10.5959/eimj.v7i2.362>
- Gu, S., Ping, J., Xu, M., & Zhou, Y. (2021). TikTok browsing for anxiety relief in the preoperative period: A randomized clinical trial. *Complementary Therapies in Medicine*, 60, Article 102749. <https://doi.org/10.1016/j.ctim.2021.102749>
- Hatamleh, I. H. M., Safori, A. O., Ahmad, A. K., & Al-Etoum, N. M. I. (2023). Exploring the interplay of cultural restraint: The relationship between social media motivation and subjective happiness. *Social Sciences*, 12(14), Article 228. <https://doi.org/10.3390/socsci12040228>
- Hawes, T., Zimmer-Gembeck, M. J., & Campbell, S. M. (2020). Unique associations of social media usage and online appearance preoccupation with depression, anxiety, and appearance rejection sensitivity. *Body Image*, 33, 66-76. <https://doi.org/10.1016/j.bodyim.2020.02.010>
- Hellfeldt, K., López-Romero, L., & Andershed, H. (2019). Cyberbullying and psychological well-being in young adolescence: The potential protective mediation effects of social support from family, friends, and teachers. *International Journal of Environmental Research and Public Health*, 17(1), Article 45. <https://doi.org/10.3390/ijerph17010045>
- Hosseini, S. A., & Padhy, R. K. (2023). *Body image distortion*. StatPearls Publishing.
- Institute for Public Health. (2020). *National Health and Morbidity Survey (NHMS) 2019: Non-communicable diseases, healthcare demand, and health literacy—key findings*. Ministry of Health Malaysia. [https://iptk.moh.gov.my/images/technical\\_report/2020/4\\_Infographic\\_Booklet\\_NHMS\\_2019\\_-\\_English.pdf](https://iptk.moh.gov.my/images/technical_report/2020/4_Infographic_Booklet_NHMS_2019_-_English.pdf)
- Kelly, Y., Zilanawala, A., Booker, C., & Sacker, A. (2018). Social media usage and adolescent mental health: Findings from the UK Millennium cohort study. *eClinicalMedicine*, 6, 59-68. <https://doi.org/10.1016/j.eclinm.2018.12.005>
- Kemp, S. (2024, February 23). *Digital 2024: Malaysia*. DataReportal. [https://datareportal.com/reports/digital-2024-malaysia?utm\\_source=chatgpt.com](https://datareportal.com/reports/digital-2024-malaysia?utm_source=chatgpt.com)
- Khaw, E. Q. (2024). A study on relation between social media dependency and loneliness among Malaysian university students [Doctoral dissertation, Universiti Tunku Abdul Rahman]. <http://eprints.utar.edu.my/id/eprint/6390>
- Kish, L. (1965). *Survey sampling*. John Wiley and Sons Incorporation.
- Lee, A. R., Son, S.-M., & Kim, K. K. (2016). Information and communication technology overload and social networking service fatigue: A stress perspective. *Computers in Human Behavior*, 55(Part A), 51-61. <https://doi.org/10.1016/j.chb.2015.08.011>
- Lerner, A., & Klein, M. (2019). Dependence, withdrawal and rebound of CNS drugs: An update and regulatory considerations for new drugs development. *Brain Communications*, 1(1), Article fcz025. <https://doi.org/10.1093/braincomms/fcz025>
- Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the depression anxiety stress scales*. Psychology Foundation.
- Marwick, A. E., & Boyd, D. (2014). Networked privacy: How teenagers negotiate context in social media. *New Media & Society*, 16(7), 1051-1067. <https://doi.org/10.1177/1461444814543995>
- Montag, C., & Markett, S. (2023). Social media use and everyday cognitive failure: Investigating the fear of missing out and social networks use disorder relationship. *BMC Psychiatry*, 23, Article 872. <https://doi.org/10.1186/s12888-023-05371-x>
- Neira, C. J. B., & Barber, B. L. (2014). Social networking site usage: Linked to adolescents'

- social self-concept, self-esteem, and depressed mood. *Australian Journal of Psychology*, 66(1), 56-64. <https://doi.org/10.1111/ajpy.12034>
- Nie, Z., Waheed, M., Kasimon, D., & Wan Abas, W. A. B. (2023). The role of social network analysis in social media research. *Applied Sciences*, 13(17), Article 9486. <https://doi.org/10.3390/app13179486>
- Nowland, R., Necka, E. A., & Cacioppo, J. T. (2018). Loneliness and social internet usage: Pathways to reconnection in a digital world? *Perspectives on Psychological Science: A Journal of the Association for Psychological Science*, 13(1), 70-87. <https://doi.org/10.1177/1745691617713052>
- Prasad, S., Souabni, S. A., Anugwom, G., Aneni, K., Anand, A., Urhi, A., Obi-Azuike, C., Gibson, T., Khan, A., & Oladunjoye, F. (2023). Anxiety and depression amongst youth as adverse effects of using social media: A review. *Annals of Medicine and Surgery*, 85(8), 3974-3981. <https://doi.org/10.1097/MS9.0000000000001066>
- Sarason, I. G. (2013). *Social support: Theory, research and applications* (Vol. 24). Springer Science & Business Media.
- Seedat, S., Scott, K. M., Angermeyer, M. C., Berglund, P., Bromet, E. J., Brugha, T. S., Demyttenaere, K., de Girolamo, G., Haro, J. M., Jin, R., Karam, E. G., Kovess-Masfety, V., Levinson, D., Medina Mora, M. E., Ono, Y., Ormel, J., Pennell, B. E., Posada-Villa, J., Sampson, N. A., Williams, D., & Kessler, R. C. (2009). Cross-national associations between gender and mental disorders in the World Health Organization World Mental Health Surveys. *Archives of General Psychiatry*, 66(7), 785-795. <https://doi.org/10.1001/archgenpsychiatry.2009.36>
- Shamsuddin, K., Fadzil, F., Wan Ismail, W. S., Shah, S. A., Omar, K., Muhammad, N. A., Jaffar, A., Ismail, A., & Mahadevan, R. (2023). Correlates of depression, anxiety and stress among Malaysian university students. *Asian Journal of Psychiatry*, 6(4), 318-323. <https://doi.org/10.1016/j.ajp.2013.01.014>
- Tan, C. N. L., & Fauzi, M. A. (2024). Unravelling late adolescents' addiction to social media: A unified theory perspective. *Global Knowledge, Memory and Communication*. Advanced online publication. <https://doi.org/10.1108/GKMC-02-2024-0099>
- Tariq, W., Mehboob, M., Khan, M. A., & Ullah, F. (2012). The impact of social media and social networks on education and students of Pakistan. *International Journal of Computer Science Issues*, 9(4), 407-411.
- Thomson, R. M., Igelström, E., Purba, A. K., Shimonovich, M., Thomson, H., McCartney, G., Reeves, A., Leyland, A., Pearce, A., & Katikireddi, S. V. (2022). How do income changes impact on mental health and wellbeing for working-age adults? A systematic review and meta-analysis. *Lancet Public Health*, 7(6), e515-e528. [https://doi.org/10.1016/S2468-2667\(22\)00058-5](https://doi.org/10.1016/S2468-2667(22)00058-5)
- Viertiö, S., Kiviruusu, O., Piirtola, M., Kaprio, J., Korhonen, T., Marttunen, M., & Suvisaari, J. (2021). Factors contributing to psychological distress in the working population, with a special reference to gender difference. *BMC Public Health*, 21, Article 611. <https://doi.org/10.1186/s12889-021-10560-y>
- Weinstein, A. M. (2023). Problematic social networking site usage-effects on mental health and the brain. *Frontiers in Psychiatry*, 13, Article 1106004. <https://doi.org/10.3389/fpsy.2022.1106004>
- Wong, S. S., Wong, C. C., Ng, K. W., Bostanudin, M. F., & Tan, S. F. (2023). Depression, anxiety, and stress among university students in Selangor, Malaysia during COVID-19 pandemics and their associated factors. *PLoS ONE*, 18(1), Article e0280680. <https://doi.org/10.1371/journal.pone.0280680>

- World Health Organization. (2022, June 17). *Mental Health*. <https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response>
- Xu, Y., Li, Y., Zhang, Q., Yue, X., & Ye, Y. (2022). Effect of social media overload on college students' academic performance under the COVID-19 quarantine. *Frontiers in Psychology, 13*, Article 890317. <https://doi.org/10.3389/fpsyg.2022.890317>
- Yoon, S., Kleinman, M., Mertz, J., & Brannick, M. (2019). Is social network site usage related to depression? A meta-analysis of Facebook-depression relations. *Journal of Affective Disorders, 248*, 65-72. <https://doi.org/10.1016/j.jad.2019.01.026>
- Zulkifli, N. F. N., & Abidin, M. Z. Z. (2023). Exploring social media addiction among Malaysian university students. *Forum Komunikasi, 18*(1), 120-146.



# Creating a Sustainable Tourism Business Model for Small-scale Tourism Products in Malaysia: Embracing Tourism Opportunity for Post-pandemic Resilience

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## ABSTRACT

The tourism business is battling to survive in 2019 due to travel restrictions, border closures, and the closure of most services. The pandemic is having a more severe impact on small-scale tourism products than on others. Therefore, it is urgent to introduce new elements into business models to assist these operators in maintaining operations and sustaining their products. Given that most revenue in the tourism industry comes from small-scale products that directly benefit local communities, tourism operators need to identify the key elements of their business model. The current nine elements of the small-scale business model are the customer segments, value proposition, revenue streams, channels, customer relationships, key activities, key resources, key partners, and cost structure. However, these small-scale tourism operators must add new components to their business strategies for product sustainability to remain competitive today. Hence, the goals of this study were addressed by using the qualitative technique as the research design. Ten informants,

including tourism representatives and operators from Johor, Kedah, and Negeri Sembilan, participated in this semi-structured interview. Using NVivo, data were coded, translated as necessary, and transcribed. The content was analysed according to thematic analysis. The new main components of the business model are professional guidance, facilities, travel experience, information delivery, stakeholder collaboration, product management and risk management to guarantee the viability and

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resilience of small-scale tourism operators. These new findings can assist tourism operators in sustaining their products.

*Keywords:* Business model, community-based products, small-scale tourism, sustainability, tourism attraction

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## INTRODUCTION

Nestled in Southeast Asia, Malaysia is renowned for its vibrant customs, stunning landscapes, and rich cultural diversity. Beyond its bustling cities and iconic landmarks, small-scale tourism offers an authentic experience, allowing visitors to discover Malaysian culture and often-overlooked attractions. This approach avoids mass tourism to preserve the nation's natural beauty and cultural heritage. Engaging with local communities provides deeper insights into Malaysia's culture and history.

When COVID-19 affected in 2019, many countries started to close their borders to foreign nationals. The federal government of Malaysia implemented similar measures, including the Movement Control Order (MCO), on March 18, 2020, as a preventative step (Hanafiah et al., 2021). This significantly impacted all sectors, including tourism. Gössling et al. (2020) noted that the crisis affected all forms of travel, transforming over-tourism into non-tourism activities within months.

While health declarations still impose some restrictions, many countries have eased domestic travel restrictions after three years of battling to reduce cases. Increased travel activity is anticipated to aid the tourism sector's recovery. Consequently, the government has relaxed travel restrictions to encourage cooperation among tourism businesses. Zheng et al. (2020) identified

that COVID-19 affected three primary areas: tourism demand, traveller behaviour, and the tourism sector. Moreover, health concerns have heightened travellers' fear of travelling (Luo & Lam, 2020).

The 2019 pandemic significantly impacted global travel and tourism, with small-scale tourism not exempt from its effects. Travel restrictions, lockdowns, and safety concerns caused a sharp decline in tourism, adversely affecting local economies and Malaysia's small-scale tourism industry. In 2022, tourist arrivals in Malaysia dropped by 61.4%, and tourism receipts fell by 67.2% compared to 2019 (Tourism Malaysia, 2022). These declines strained businesses, making operating, retaining employees, upgrading facilities, and adapting business models challenging (Bulchand-Gidumal, 2022).

Haywood (2020) observed that the pandemic's impact on travel and tourism led to the closure of hundreds of thousands of small to medium-sized businesses worldwide, declining annual sales, and similar supply chain disruptions for 30%–40% of these businesses. Consequently, tour operators must rethink their business plans and implement transformation strategies to remain competitive. Analysing product determinants based on business size is crucial for understanding development and growth, helping small-scale tourism operators adjust their business plans.

Thus, formulating a robust business model requires recognising elements to resolve these issues (Baiocco & Paniccia, 2023).

Moreover, to support tourism operators, the Tourism National Policy 2020–2030 emphasises six transformation strategies: strengthening governance capacity, creating special tourism investment zones, embracing smart tourism, enhancing demand sophistication, practising sustainable and responsible tourism, and upskilling human capital (Ministry of Tourism, Arts, and Culture, 2020). These strategies aim to enhance Malaysia's tourism industry's competitiveness, focusing on increasing revenue, establishing partnerships and investments, empowering local communities, and ensuring sustainability and resilience, in addition to restructuring business models.

Hence, to remain profitable and competitive, operators of small-scale tourism must adapt and incorporate technology into their business strategies. Given that most small-scale tourism businesses offer community-based products benefiting their local communities, special attention should be given to these tour operators. Transitioning traditional methods of producing tourism products into digital ones will assist small-scale tourism operators in remaining viable. Emphasising business sustainability necessitates understanding the elements of small-scale tourism business models. This study will create a new business model and elements for small-scale tourism businesses. The new model will help tour operators digitalise their offerings to meet visitor needs and demands, aiding financial sustainability and survival.

## LITERATURE REVIEW

### **The Impact of COVID-19 on Travel and Tourism Businesses in 2019**

The COVID-19 pandemic, often referred to as the coronavirus crisis, had an unprecedented impact on the tourism sector in 2019. Both the airline industry and the broader tourism sector were severely affected. The profound impacts of the COVID-19 pandemic on travel and tourism necessitate the integration of new elements into business models to align with the evolving travel habits of future travellers (Hampton et al., 2023).

According to Tourism Malaysia's statistics, 84.2% of respondents indicated that the crisis had impacted and marginally modified their travel behaviour. This shift is corroborated by a study by Li et al. (2020), which found that travellers shortened their stays if required to travel or planned to take their next vacation once the pandemic was under control. This heightened emphasis on travel safety and hygiene compared to pre-crisis levels further illustrates the change in tourists' travel behaviour post-crisis.

Furthermore, the products and services offered by tourism operators have been aligned with three dimensions: value proposition, value creation, and value capture (Guckenbiehl & de Zubielqui, 2022). While the significant impact of COVID-19 on tourism businesses is undeniable, many operators have adjusted their value propositions by offering new products and services. This approach involves a strategic and systematic process that highlights the relevance and value of the offerings provided by tourism operators.

Such a method helps to avoid business disruptions, enhance competitiveness, and enable operators to readjust and thrive in the industry once more.

Hence, it is imperative for tourism operators to adapt and enhance their business models to meet tourists' evolving needs, demands, and preferences. Additionally, they must remain competitive by offering unique experiences that engage tourists.

### **Pre-pandemic Business Model Canvas for Small-scale Tourism Operators**

Since the mid-1990s, the business model (BM) has been extensively used in strategic entrepreneurship studies as a unit of analysis to understand how businesses operate (Baiocco & Paniccia, 2023). The Business Model Canvas (BMC) is a strategic management tool for creating new business models and categorising existing ones. The three primary facets of a business model canvas—viability and feasibility—are covered by nine blocks (Simanjuntak, 2021). These nine blocks include customer segments, value propositions, channels, customer relationships, income streams, key resources, key activities, key partnerships, and cost structure. These fundamental building blocks are recommended for business model design.

Traditionally, tourism business models focused on product development and marketing. Yet many tourism operators, particularly those in small-scale tourism, lack the knowledge to adapt to new business models. They face challenges such as limited resources, insufficient training, and difficulty

understanding and implementing digital tools. Even so, the pandemic underscored the necessity for strategic planning and risk management to navigate uncertainties. Adopting new business models becomes increasingly critical as travel habits evolve, driven by technological advancements, competitiveness, and digitisation.

From these perspectives, investigating the digitalisation aspects of the small-scale tourism sector is crucial to ascertain the requirements for enhancing future business planning (Ertac & Cankan, 2021). Travel and tourism companies globally are compelled to change their business models and apply new management standards to thrive in this "new normal" and adapt to challenging conditions. Consequently, a new business model plan can help strengthen the tourism sector. Tour operators must adapt to changing traveller patterns. Carracedo et al. (2020) showed that the epidemic demonstrated the necessity of technology today. Technology has changed society and sparked new behavioural patterns, significantly affecting purchasing habits. Thus, small-scale tourism businesses must immediately reinvent themselves to survive this unanticipated situation. Their capacity to adapt to the new market will determine their sustainability.

This model assists entrepreneurs in competing on business strategies rather than innovation in technology, pricing, services, or products. The implications of post-pandemic changes in tourist behaviour have influenced certain aspects and introduced new elements such as digitalisation. Hence,



the canvas is used to make improvements to the business model of businesses (Szromek & Polok, 2022).

### **Sustainability Practices for Small-scale Tourism Business Models**

Small-scale tourism, which places a major focus on meaningful experiences, responsible practices, and community involvement, is rapidly rising to prominence as a sustainable alternative to mainstream tourism. A successful small-scale tourism business depends on carefully considering several important factors. These factors include encouraging community involvement, getting professional advice, putting risk management plans into action, and sustaining products (Ernawati et al., 2017; Lachhab et al., 2022). Community engagement, which fosters a win-win connection between stakeholders, locals, and businesses, is the core of small-scale tourism. It is necessary to establish relationships with stakeholders, the local community, and nearby service providers to guarantee that the economic advantages of tourism directly benefit the local community (Rangsunnoen et al., 2023). Furthermore, supporting community initiatives in terms of skill development and business planning is essential for empowering active participation in tourism businesses and resulting in sustainable small-scale tourism businesses. Thoughtful planning and meticulous implementation of these techniques are critical to the overall success of small-scale tourism.

Strulak-Wójcikiewicz et al. (2020) stated that in addition to concentrating on

the components of the business model, tour operators should also give priority to sustainable development to guarantee that they can promote their goods to the appropriate tourists and satisfy their demands. Moreover, Guckenbiehl and de Zubietaqui (2022) found six components of the business model for startups: opportunity grabbers, digital adjusters, adversity survivors, and steady beneficiaries. Tourism operators modify their business plans during stable market conditions to accommodate new tourist preferences.

Bhaskara and Filimonau (2021) reached a consensus on the adaptation tactics that travel agencies should oversee during the recuperation stage. E-business planning must incorporate organisational structure and human resource management to ensure that small-scale tourism operators implement recovery and adaptation methods effectively. Failure to incorporate technological aspects into their business model for planning, organisation, and improvement will render small-scale tourism products less competitive. Figures from Tourism Malaysia further underscore the significance of technology adoption in small-scale business models. According to a poll on domestic travel in Malaysia following the recovery movement control order (RMCO), 32.8% of domestic travellers were influenced by social media influencers. This demonstrates the urgent need to incorporate technological components into modern business models.

The new preference in tourists' demands aligns with business innovation. Innovation in business models can be fuelled by the

ability to create constant tension within the organisation, aimed at renewing value propositions based on newly created and shared knowledge (value creation) and insights gleaned from data (value capture; Troisi et al., 2023). Therefore, by understanding those elements, the small-scale tourism business can reconfigure its business model towards sustainability and present opportunities for small-scale tourism operators. The focus of changes was shown to be either business model innovation or adaptation or a mix of the two. Conceptualising the business model with tourists' preferences, within the framework of a business model mindset and diverse guiding principles, will lead to the successful planning of small-scale tourism products on par with other tourism offerings.

### **Transformation of Small-scale Tourism Business Models Post-pandemic**

The business models also serve as a narrative that explains the organization's operations. A business model's fundamental component is how an organisation satisfies customer demand, accepts payment for that value, and converts payables into revenue. Depaoli et al. (2020) claimed that the most important considerations when creating a business model are identifying the essential elements, including risk management, which constitute the model's business canvas, and the iterative process that enables the creation of an effective model. As a result, to transform the traveller's experience, tourism operators must continuously reinvent their business models. This is especially

important in these times of rapid change by offering new services with combinations of management (Perić et al., 2019).

Moreover, a business model outlines the steps involved in developing and presenting a particular value proposition to current and new clients, as well as how the business will realise the value it has created (Troisi et al., 2023). Due to concurrently unanticipated events and technological advancements that have fundamentally altered the business environment, the tourism industry must adapt to significant changes in recent times. Innovative internet models have updated and supplanted certain conventional company models. With the adoption of new technology, the strategy has shifted from employing traditional marketing. Before this, most tourism businesses used brochures or booklets to advertise their goods, but Web 2.0 has changed that (Sigala, 2020). Notably, with apps serving as the new technology, the tourism industry's business model has once again evolved because of the rapid advancement of technology. Travellers can use this application to book their flights, lodging, and transportation online and benefit from promotions through digital marketing.

Furthermore, Marios et al. (2004) mentioned that value product/proposition, management and reengineering, ICT investments, web marketing and market value chain are the five key pillars of the business's model. A model works better than a definition when it comes to analysing a business model's structure and pinpointing the crucial elements of success. Besides, a

previous study by Dias et al. (2023) found four pillars of the sustainable business framework: innovation, development, embedding, and integration. The findings of the research demonstrated the need for small-scale tourism product operators to be aware of their advantages and disadvantages when it comes to product management. The results indicated the stronger interaction that tour operators have with travellers and that integration is one of the key components in the business model. This is evident as most products and services provided are centred around the natural resources in the area, and the inability to creatively incorporate these resources as a tourist attraction will have an impact on the number of tourists.

## METHODS

This study employed a case study approach to explore the elements of the business model for small-scale tour operators that contribute to the sustainability of small-scale tourism products in Malaysia. This study used a qualitative research methodology to address the research aims. Compared to other research methods, qualitative research methods can effectively and thoroughly study key concepts, definitions, and backgrounds to explore people's viewpoints, perspectives, and perceptions in greater detail (Creswell, 2014). Semi-structured interviews are the backbone of this empirical research. This study used An in-depth interview as the data collection method, as it is a common technique in qualitative research (Merriam, 2014). An explanation and permission were obtained, and the interview procedure

was provided, beginning with the research questions and the important dimensions noted in the framework. Instead of scripted inquiries, the researchers employed a list of themes to allow the respondents to freely offer novel subjects or unexpected details and to foster the formation of fresh problems and queries.

The interviews were conducted with the ten tour operators, which are small-scale tourism practices and stakeholders, as shown in Table 1. The ten informants selected through snowball sampling techniques are from three different zones: Kedah, Johor, and Negeri Sembilan. Ten tour operators from three different states were carefully selected to enhance the diversity and quality of small-scale tourism products in Malaysia, as each tour operator brings a unique strategic approach. Moreover, the informants chosen for this study are experienced tourism operators dedicated over three years to developing small-scale tourism products, business owners and local community-based tourism operators. The information of the informant is shown in Table 2. Even though a sample of 10 tour operators precludes any conclusions from being broadly generalised, this is appropriate for an exploratory study. The objective is to identify the key elements of a business model and to envision the components of a new small-scale tourism tour operator business model. The researchers stopped the interview process once theoretical saturation was reached by gradually comparing all the additional data they had collected, following the methodological practice used in the qualitative approach.

Table 1  
*Information on conducted in-depth retrospective interviews*

No of the interviewed tour operators	Type of Interview	Interview duration
1	Face-to-face	1 h 14 m 38 s
2	Face-to-face	58 m 31 s
3	Face-to-face	1 h 57 m 58 s
4	Face-to-face	37 m 53 s
5	Face-to-face	1 h 40 m 29 s
6	Face-to-face	37 m 53 s
7	Online	1 h 19 m 10 s
8	Online	1 h 16 m 31 s
9	Face-to-face	39 m 37 s
10	Face-to-face	1 h 37 m 42 s

The same researcher has recorded and transcribed the interviews to provide a shared interpretation of the key findings. Triangulation and member checks were employed to ensure the validity of the interviews conducted in this study. Furthermore, member checks, also known as informant validation, were conducted to enhance internal validity. In this process, the informants were given the opportunity to review the interview transcripts and provide feedback on the findings. Furthermore, a thematic analysis was used to analyse the data where the researcher read, annotated and classified the text according to the research question. The main components of the business model were identified by coding in the interview transcripts and then further extended and debated semantically based on the researchers' subjective assessment. Then, to find inconsistencies in the researchers' assessments and create a distinct coding scheme, consistency checks

and comparisons between the various coding systems were performed by using the previous literature.

Table 2  
*Information on tour operators' products offered*

No of the interviewed tour operators	Location	Type of Products/ Stakeholders
1	Kedah	Cottage
2	Johor	Stakeholder/State Government
3	Johor	Community-based Tourism/ Ecotourism
4	Kedah	Community-based Tourism
5	Kedah	Resort/Chalet
6	Johor	Extreme activities
7	Johor	Community-based Tourism
8	Kedah	Community-based Tourism
9	Negeri Sembilan	Leisure/Agro Tourism
10	Negeri Sembilan	Community-based Tourism

## FINDINGS

The uniqueness of the business models of all small-scale tourism operators resides in the integration of diverse activities involving tourism stakeholders as well as the repurposing of small-scale products to meet the needs of visitors. The co-evolutionary framework is applied to analyse the factors influencing small-scale tourism products in Malaysia, specifically in the post-pandemic context. The new business model elements in BMC are the strategic management tool that provides a visual framework for developing, describing, and analysing a

business model (Simanjuntak, 2021). One informant said:

(...) Okay, so how do we say that this homestay has great management right before he meets the homeowner and so on? (BO8)

Furthermore, the business model fosters a comprehensive perspective of the company and strategic consideration of the interplay between all the components that go into building and maintaining a profitable business model. It also can give different aspects of a small-scale tourism business a clear, visual depiction essential to its success; canvas is very useful in this regard. In addition, this model can help tourism operators and stakeholders quickly understand the business, fostering better communication and decision-making besides adapting to changing conditions. They assist tour operators in organising and comprehending the crucial aspects of managing, leading, and planning their business activities, which is particularly valuable in the aftermath of the pandemic. The following response exemplifies this:

(...) Naturally disappeared. Just here, most who come here said don't change. Ha, don't change it, just make it part of the landscape, that's all. Don't change the landscape (flora and fauna). (BO1)

Tourism operators have a unique business model that involves managing and planning attractions while simultaneously considering the specific appeal of each product. Risk

management is an integral part of this business model and should be seamlessly integrated into the planning process. The pandemic has underscored the importance of business owners acknowledging the significance of combining risk management and attraction planning. This is crucial not only for ensuring the safety of tourists but also for ensuring the long-term sustainability of the business in the face of unforeseen circumstances. According to them:

(...) Right now, we lack manpower, especially when there are too many people. Ha'ah, this is one of our challenges as well. (BO4)

(...) That happened once, but he has done it many times since. Sometimes, he enjoys playing in that manner, bumping into others. This behaviour is also observed frequently. (BO6)

Next, to ensure the survival and economic contribution of these small-scale tourism products to the local population, there are three elements that tourism producers need to focus on: governance, finance, and skills (Musavengane & Kloppers, 2020). Good governance in risk management is crucial, and it should involve all stakeholders in the industry. These stakeholders include the Tourism Authority, Local Authorities, tourism operators, and the community. Effective governance can help develop a strategic plan, as each stakeholder has a responsibility to ensure that the product is offered in accordance with established policies. Therefore, including professional

advice and identifying the correct guidance in the business model is essential for effective planning and offering attractive products that appeal to tourists. One of the informants made the following statement:

(...) We receive assistance from RISDA. Specifically, we obtained a grant of RM20,000.00 from RISDA. (BO9)

The presented results are derived from interview quotes, which shed light on the key evolutionary mechanisms of variety, selection, and retention. These mechanisms are closely connected to the business model and play a crucial role in driving business recovery, resilience, and sustainability. These elements help tourism operators plan and develop their business strategies to achieve profitability and sustainability in the industry and offer diversity in tourism products.

## DISCUSSION

### Elements of the Small-scale Tourism Business Model in Post-pandemic

Small-scale tourism businesses are vital to Malaysia's thriving tourism sector, as they support sustainable travel practices and provide a substantial economic contribution to the nation. The original business concept emerged from this finding, and a sustainable model was developed. The sustainable business model of small-scale tourism operators was further refined. Its final model is displayed in Figure 1, which depicts the general layout of the small-scale sustainable tourism business model. The

final model scheme clearly explains all the identified new elements (professional advice, facilities, travel experience, information delivery, stakeholder collaboration, product management, and risk management) plus the nine previous elements. Acquiring knowledge about the components of small-scale tourism business models and their suitability further allowed for pandemic-time follow-up research. The tourism operators were pleased with these findings since they might improve their businesses in addition to helping local communities make a greater return through sustainable planning (Vipulan et al., 2023).

### *Value Proposition*

In today's context, the value proposition considers three perspectives: customer value, the value captured by the enterprise, and the social value of spa enterprises. After the pandemic, crisis management and vital tasks are crucial components that tourism businesses need to recognise. In addition to getting businesses ready for a sudden shift, this component aids in the planning, development, and execution of all emergency measures in the event of a health, environmental, or terrorist crisis.

The value proposition today considers the visitors' or tourists' value and the social worth of small-scale tourism businesses. In small-scale tourism, the value proposition is a crucial component that outlines the special advantages and experiences that these companies provide to their clients. Due to their unique products, small-scale tourism businesses can differentiate

themselves from their larger, more mainstream competitors. Because of their distinctiveness, tourism operators can offer specialised services that draw a wide range of tourists and contribute to the tourism industry's diversification (Traskevich & Fontanari, 2023). Authentic experiences, specialised knowledge in particular areas, and environmental sustainability are some values that tourism operators can provide, ensuring the sustainability of their product offerings.

### ***Professional Advice and Stakeholder Collaboration***

In addition, professional advice is a critical component of this business plan. Small-scale tourism operators need to have a big impact on the expansion, sustainability, and success of their businesses. In the context of tourism businesses, professional advice refers to direction, advice, and knowledge offered by certified and experienced professionals to assist operators in making well-informed decisions, overcoming obstacles, and optimising a range of tourism-related activities, including financial management, business strategy, and planning, training, and development (Guckenbiehl & de Zubielqui, 2022). This advice can cover a wide range of areas crucial to the success and sustainability of tourism businesses.

In addition to professional advice, risk management in the tourism business model gained significance. Following the epidemic, the industry faced previously unheard-of difficulties and uncertainties, making risk management even more crucial.

Effective risk management is crucial for the resilience and long-term viability of tourism businesses, as the pandemic brought to light the sector's susceptibility to external shocks. By implementing effective risk management, businesses can adjust to changing circumstances, such as public health emergencies, economic downturns, or other unanticipated emergencies. The pandemic illustrated how crucial it is to have a crisis plan in place. Creating thorough crisis management plans that incorporate communication tactics, health and safety procedures, and customer trust-maintenance measures during trying times are all part of risk management (Lachhab et al., 2022). Establishing a dedication to risk mitigation and readiness can help boost visitors' trust.

### ***Information Delivery (Digital Marketing)***

Apart from that, for small-scale business models, digital marketing is essential for several reasons, particularly in the contemporary digital world. It offers small businesses measurable, focused, and affordable ways to connect with and engage their target market. Digital marketing is more affordable for tourism operators than traditional advertising for a few reasons. Additionally, small businesses can advertise their products and services to potential visitors outside of their local or regional markets by using online platforms and tools. A well-optimised website and a robust social media presence are essential to increase product awareness and draw in new business. Small businesses may interact with their audience in real-time with digital

marketing. Blogs, social media sites, and other internet channels offer chances for direct communication, visitor feedback, and building relationships with visitors (Melović et al., 2023).

### ***Risk Management***

Tourism operators need to prioritise risk management elements within the industry. Ferreira et al. (2017) suggested that risk management should also consider technological requirements, market conditions, various scenarios, current and future competition, financial projections, laws and regulations, socioeconomic environment, and political interference. Ngo and Creutz (2022) also emphasised the significance of integrating risk management into the management of this community-based tourism product. By taking risk management into account during the planning and development stages, the management team can successfully identify potential risks that may arise before, during, and after offering the product to tourists. This process of identification allows tourism operators to prepare and implement appropriate actions to minimise or prevent issues when delivering products and services. Drawing from the lessons learned during previous crises, tourism operators can create an initial strategy to ensure the resilience of this small-scale tourism product in the event of future crises. Understanding the risks and planning for action is crucial for tourism operators to survive and thrive in this industry.

Financial factors are also among the reasons why tourism product operators struggle to sustain their presence in the industry. The production of tourism products requires significant costs, especially for employee salaries, licensing fees, and product and service enhancements to provide comfort to tourists. These financial aspects need to be carefully managed to ensure the sustainability of tourism products. Additionally, there is a need to enhance the skills of tourism product operators. The rapid changes in the tourism industry have influenced entrepreneurs' demand for improved skills because each tourist has different behaviours and demands, which often change. For instance, the impact of the pandemic has shifted tourism behaviour towards nature-based products. Thus, operators must adapt and enhance their skills to meet these evolving demands.

### ***Facilities***

Facilities play a crucial role in influencing visitors to choose small-scale tourism attractions as part of a business model. Previous research has highlighted the significance of tourism facilities as service providers, particularly for small-scale attractions (Khairi & Darmawan, 2021). Additionally, studies have identified key factors that attract visitors, including the facilities and amenities offered to tourists (Fermani et al., 2020). Visitor facilities refer to the infrastructure that supports attraction activities within a visitor area. High-quality facilities can shape visitors' perceptions. However, tourism operators face challenges



in planning locations for different types of facilities based on their correlation with the street network, optimising facility layouts, and rejuvenating the area comprehensively (Wang et al., 2021).

Moreover, facilities are a crucial aspect of management that operators should prioritise for the overall success of a tourism product. Facilities can act as the primary attraction for visitors, contributing to their overall experience and satisfaction. As stated by Khairi and Darmawan (2021), visitor facilities are essential complements to destinations, meeting the needs of visitors during their trips. Facilities are integral to visitor attractions, either as supporting or main elements. Adopting environmentally friendly technologies, prioritising accessibility, and creating immersive experiences can all contribute to the long-term viability of small-scale tourism operations.

### ***Product Management***

Specialised tourism products are being developed to enhance the appeal of integrated destinations and attract new segments of tourists (Šerić et al., 2024). Product management plays a vital role in the tourism industry by enabling operators to understand and promote their offerings effectively to potential customers (Getz, 1989). With a thorough understanding of their products, small-scale tourism operators can tailor their marketing strategies to target specific customer segments, highlight unique selling points, and differentiate themselves from competitors. This knowledge also enables

operators to provide customers with accurate and detailed information, enhancing their overall experience and satisfaction.

However, according to Happ et al. (2023), products with little diversification can be easily substituted, especially in highly developed markets. This can be a disadvantage in a highly competitive environment. Furthermore, product management empowers small-scale tourism operators to make informed decisions regarding pricing, packaging, and distribution strategies. It also helps operators anticipate and meet visitors' evolving needs and preferences. To ensure visitor satisfaction, measurement of technical performance and product quality, as well as the extent to which the product meets customer needs, is important in product management. Correspondingly, tourism operators should prioritise marketing strategies in product management. This includes product design, channel selection, sales, pricing flexibility, and marketing capabilities to ensure future sustainability (Huang et al., 2022).

### ***Travel Experience***

A memorable experience refers to visitors' emotional evaluation of tourism activities. It is created through meaningful and interactive tourism events or experience elements. New and unique tourism opportunities, such as cultural activities, hospitality services, and social interactions in unfamiliar cultures, shape memorable experiences. According to Leung et al. (2022), these memorable experiences play a crucial role in connecting

tourists' experiences with their intentions and behaviours.

Tourism operators must understand the distinctiveness and appeal of their products and services to develop successful marketing strategies and attract new and returning visitors. Past travel experiences to a destination also greatly influence the formation of an image and impact visitors' decision-making process (Kim et al., 2012). The initial encounters visitors have with a destination shape their future travel choices.

Visitors rely on their memories of past experiences when making decisions about future trips (Gardiner et al., 2013). Tourism operators need to recognise that each visitor's experience may differ in its impact and significance. This does not diminish the importance of enhancing visitor attractions. Instead, it highlights that modern visitors seek unique products and experiences that set them apart from others, in addition to their desire for distinctive experiences.

Key Partners	Key Resources	Price	Customer Relationship	Market Segments
<ul style="list-style-type: none"> <li>Local authorities</li> <li>Local entrepreneurs</li> <li>Business financing</li> </ul>	<ul style="list-style-type: none"> <li>Land</li> <li>Building</li> <li>Nature</li> <li>Equipment</li> </ul>	<ul style="list-style-type: none"> <li>Affordable</li> <li>Based on activities offered</li> </ul>	<ul style="list-style-type: none"> <li>Loyalty</li> <li>Customer Record</li> <li>Feedback/ Comment</li> </ul>	<ul style="list-style-type: none"> <li>Family</li> <li>Alloentric traveller</li> <li>Business organisation</li> </ul>
Professional Advice	Facilities	Travel Experience	Channel	Information Delivery
<ul style="list-style-type: none"> <li>Business financing</li> <li>Local authorities</li> <li>Local entrepreneurs</li> <li>Tourists</li> </ul>	<ul style="list-style-type: none"> <li>Accommodation</li> <li>Food and beverages</li> <li>Leisure activities</li> <li>Extreme activities</li> </ul>	<ul style="list-style-type: none"> <li>Value Proposition</li> <li>Trend</li> </ul>	<ul style="list-style-type: none"> <li>Social Media</li> <li>Website</li> <li>Local Authority</li> </ul>	<ul style="list-style-type: none"> <li>Word-of-mouth</li> <li>Flyers</li> <li>Brochures</li> <li>Social media</li> </ul>
Stakeholders Collaboration	Management		Promotion	
<ul style="list-style-type: none"> <li>Strategic approach for sustainable development</li> <li>Training</li> <li>Consultation</li> </ul>	<ul style="list-style-type: none"> <li>Vision and Strategic Plan</li> <li>Community Association</li> <li>Individual</li> </ul>		<ul style="list-style-type: none"> <li>Social media</li> <li>Website</li> <li>Flyers and brochures</li> <li>Word-of-mouth</li> </ul>	
Cost Structure	Revenue Stream	Product Management	Risk Management	
<ul style="list-style-type: none"> <li>Financial Support</li> <li>Self-Funded</li> <li>Promotion</li> <li>Product Development</li> </ul>	<ul style="list-style-type: none"> <li>Community Income</li> <li>Individual Income</li> <li>Activities</li> <li>Souvenir</li> <li>Food and beverages</li> </ul>	<ul style="list-style-type: none"> <li>Product Knowledge</li> <li>Product Concept</li> <li>Experience</li> <li>Branding</li> <li>Networking</li> </ul>	<ul style="list-style-type: none"> <li>Unpredictable disasters (e.g., natural, financial, and health)</li> <li>Political instability</li> <li>Employee turnover intention</li> <li>Lack of expertise</li> </ul>	

Figure 1. Propose new e-business model canvas elements for small-scale tourism

### **The Sustainability of Small-scale Tourism Towards Enhancement of the Business Model**

The sustainable business model of small-scale tourism operators was further refined. Its final model is displayed in Figure 1, which depicts the general layout of the small-scale sustainable tourism business model. Previously, the business model comprised nine fundamental elements. Integrating new components has further fortified this framework, thereby assisting small-scale tourism operators in planning and strategising their business activities. Moreover, the revised business model places significant emphasis on "risk management," ensuring that tourism operators are adequately prepared to confront any potential challenges that may arise in the course of their operations. The tourism operators were pleased with these findings since they might improve their businesses in addition to helping local communities make a greater return through sustainable planning (Vipulan et al., 2023).

Finding solutions for small-scale tourism enterprises that promote the realisation of sustainable development principles was made possible by complementary research. This study aims to evaluate how sustainable development principles are currently being applied in the tourism industry, with a specific focus on the perspectives of tourism operators in the post-pandemic era. The objective is to promote business resilience and establish a sustainable business model. It should be emphasised that small-scale tourism products are distinct from other

types of tourism products as they are managed by local communities. As a result, ensuring business resilience, especially in the aftermath of the pandemic, has become a primary concern for business owners to ensure the continuity of operations and sustain their presence in this industry.

The growing global consciousness of environmental and social issues has led to a growing demand from tourists for genuine and environmentally sustainable experiences. A crucial facet of sustainability in small-scale tourism involves prioritising the conservation of indigenous cultures and habitats. Smaller companies frequently have a closer relationship with their towns and surrounds than large-scale tourism businesses. They can participate in responsible tourism activities by encouraging cultural interchange, helping local craftspeople, and maintaining customs (Maziliauske, 2024). This benefits both local communities and tourists who are in search of authenticity, as well as visitors who seek peace in nature. It is particularly relevant now, as tourists' travel preferences have changed after the crisis.

Another essential element of sustainable small-scale tourism is community participation. Businesses may make sure that the advantages of tourism are spread more fairly by integrating local populations into tourist-related activities by making use of regional guides, purchasing goods and services locally, and making contributions to neighbourhood improvement initiatives (Ditta-Apichai et al., 2020). Technology also can play a vital role in improving the

sustainability of Malaysia's small-scale tourism industry, especially considering that tourists now prefer to obtain information digitally. Social media and online platforms may be used to encourage eco-friendly travel and enable direct reservations with tourism operators. By doing this, the need for middlemen is lessened, and a larger portion of tourism-related income is retained in the area. Technology will also assist these tourism businesses in aggressively promoting their products and services.

In conclusion, small-scale tourism businesses in Malaysia play a crucial role in long-term development. They not only benefit local communities but also contribute to Malaysia's appeal and competitiveness as a premier travel destination by focusing on community involvement, cultural authenticity, sustainability, and unique offerings. The long-term success of these businesses depends on finding a balance between economic growth, environmental conservation, cultural heritage preservation, and the use of technology. Given the changes in tourist behaviour and preferences following recent crises, tourism operators must adapt their product offerings accordingly.

## CONCLUSION

To sum up, the small-scale business model is crucial for tourism operators since it offers a structure that incorporates all the necessary components for success in the ever-changing tourism sector. Stakeholder collaboration, professional advice, risk management, facilities, information delivery, product

management, and travel experiences are now key components of a small-scale tourism business model. These elements contribute distinctive value to both tourism operators and visitors.

These additional components support the prior Business Model Canvas (BMC), which placed greater emphasis on the sustainability of businesses following the health crisis. Compared to other sectors, the tourism industry was severely impacted by the health crisis, causing many small-scale tourism businesses to cease operations due to financial difficulties. Consequently, small-scale tourism operators can benefit from these additional aspects in the business model canvas in terms of planning, development, and business sustainability. These new components will enhance the existing business model by helping tourism operators remain competitive and plan for industry resilience in the event of future crises.

During crises, the significance of the small-scale business model becomes increasingly apparent. By strengthening their adaptability and personalised approach, these businesses are better positioned to overcome uncertainties and shifting conditions, demonstrating their resilience. Small-scale tourism operators can enhance visitor experiences and positively impact their local areas by actively involving local communities, preserving heritage sites, and adopting sustainable practices. Visitors increasingly value meaningful and sustainable tourism options that connect them with local communities and offer

unique, off-the-beaten-path opportunities (Troisi et al., 2023).

In addition, the prevalence of digitisation in marketing has grown significantly over the last decade. The adoption of this concept has yielded positive implications for businesses, simplifying various processes and reducing costs. Consequently, implementing digital marketing is essential, particularly for small-scale tourism products provided by local communities. These products have the potential to enhance a destination's intrinsic value, significance, and experiential perceptions by fostering a connection between its physical and digital aspects (Ammirato et al., 2022). This approach serves as a means of developing sustainable tourism products and cultivating resilience in the face of extended post-pandemic crises. Moreover, this undertaking necessitates additional support and enhancement of digital skills among community stakeholders. Therefore, developing upskilling training programs, including digital and content marketing, content creation, and product presentation, is considered essential.

Furthermore, tourism product operators must be aware of certain challenges that can arise. These challenges primarily stem from changes in tourist behaviour or health crises, which can impact the value proposition being offered. It is essential to thoroughly identify any risks in the supply of products and services from all perspectives (Baiocco & Paniccia, 2023). By doing so, tourism operators can prepare appropriate action plans to address these

risks. Hence, collaboration with stakeholders is crucial, as each stakeholder plays a unique role. This is particularly important for small-scale tourism products, which aim to preserve cultural heritage, promote responsible tourism, and provide visitors with a unique and memorable experience. These products contribute significantly to the local economy by generating revenue, creating job opportunities, and fostering the growth of neighbouring small businesses.

### Recommendations

Some notable limitations that need to be considered for this study include the limited sample size of informants, which consists of 10 small-scale tour operators. This restriction could limit the depth and breadth of insights gained. A larger sample size might reveal a wider range of perspectives and experiences, providing a more comprehensive view of the small-scale tourism landscape. The qualitative nature of the study, while valuable for in-depth exploration of individual experiences and insights, may limit the ability to generalise findings across the entire sector. Qualitative research often provides rich, detailed data, but it can be more challenging to apply these findings universally. These limitations might affect the generalizability of the results, as the findings may not be entirely representative of the entire small-scale tourism industry in Malaysia or applicable to different regions or contexts.

Further suggestions that are useful as a guide and reference to other researchers are presented. It is also important to investigate

the latest sub-element of this business model to identify the critical aspects necessary for small-scale tourism. Due to their distinctiveness and connection to nature and culture, small-scale tourism products have the potential to become a major draw for travellers to Malaysia. Nevertheless, to ensure that these businesses can continue to operate and offer services, it is important to support the tourism operators. Future studies in these fields can offer insightful information and support the continuous creation and improvement of small-scale tourism business models, promoting the growth of a more genuine, resilient, and sustainable tourism sector.

On the other hand, to attain a more thorough understanding of the business model, it is imperative to adopt a quantitative approach to get the larger data set to validate the new elements of the business model. This approach will provide valuable insights into key components across various aspects of the tourism operators' business model. Moreover, it will highlight potential opportunities for incorporating sustainable business practices by integrating the research findings into the business model. The outcomes of this approach will assist tourism operators in formulating strategies and offering services that align with their visitors' preferences, requirements, and travel patterns.

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## REFERENCES

- Ammirato, S., Felicetti, A. M., Linzalone, R., & Carlucci, D. (2022). Digital business models in cultural tourism. *International Journal of Entrepreneurial Behaviour and Research*, 28(8), 1940-1961. <https://doi.org/10.1108/IJEER-01-2021-0070>
- Baiocco, S., & Paniccia, P. M. A. (2023). Business model innovation in sustainable entrepreneurship: Co-evolutionary evidence from small accommodation firms. *Business Process Management Journal*, 29(8), 260-292. <https://doi.org/10.1108/BPMJ-01-2023-0059>
- Bhaskara, G. I., & Filimonau, V. (2021). The COVID-19 pandemic and organisational learning for disaster planning and management: A perspective of tourism businesses from a destination prone to consecutive disasters. *Journal of Hospitality and Tourism Management*, 46, 364-375. <https://doi.org/10.1016/j.jhtm.2021.01.011>
- Bulchand-Gidumal, J. (2022). Post-COVID-19 recovery of island tourism using a smart tourism destination framework. *Journal of Destination Marketing and Management*, 23, Article 100689. <https://doi.org/10.1016/j.jdmm.2022.100689>
- Carracedo, P., Puertas, R., & Martí, L. (2020). Research lines on the impact of the COVID-19 pandemic on business. A text mining analysis. *Journal of Business Research*, 132, 586-593. <https://doi.org/10.1016/j.jbusres.2020.11.043>

- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Sage Publications.
- Depaoli, P., Za, S., & Scornavacca, E. (2020). A model for digital development of an interaction-based approach. *Journal of Small Business and Enterprise Development*, 27(7), 1049-1068. <https://doi.org/10.1108/JSBED-06-2020-0219>
- Dias, Á., Silva, G. M., Patuleia, M., & González-Rodríguez, M. R. (2023). Developing sustainable business models: Local knowledge acquisition and tourism lifestyle entrepreneurship. *Journal of Sustainable Tourism*, 31(4), 931-950. <https://doi.org/10.1080/09669582.2020.1835931>
- Ditta-Apichai, M., Kattiyapornpong, U., & Gretzel, U. (2020). Platform-mediated tourism micro-entrepreneurship: Implications for community-based tourism in Thailand. *Journal of Hospitality and Tourism Technology*, 11(2), 223-240. <https://doi.org/10.1108/JHTT-05-2019-0079>
- Ernawati, N. M., Sanders, D., & Dowling, R. (2017). Host-guest orientations of community-based tourism products: A case study in Bali, Indonesia. *International Journal of Tourism Research*, 19(3), 367-382. <https://doi.org/10.1002/jtr.2119>
- Ertac, M., & Cankan, E. (2021). Creating a sustainable tourism model in North Cyprus during the uncertainty of the Covid-19 pandemic. *Worldwide Hospitality and Tourism Themes*, 13(4), 488-497. <https://doi.org/10.1108/WHATT-02-2021-0033>
- Fermani, A., Sergi, M. R., Carrieri, A., Crespi, I., Picconi, L., & Saggino, A. (2020). Sustainable tourism and facilities preferences: The sustainable tourist stay scale (STSS) validation. *Sustainability*, 12(22), Article 9767. <https://doi.org/10.3390/su12229767>
- Ferreira, A. da S. M., Loiola, E., & Gondim, S. M. G. (2017). Motivations, business planning, and risk management: Entrepreneurship among university students. *RAI Revista de Administração e Inovação*, 14(2), 140-150. <https://doi.org/10.1016/j.rai.2017.03.003>
- Gardiner, S., King, C., & Grace, D. (2013). Travel decision making: An empirical examination of generational values, attitudes, and intentions. *Journal of Travel Research*, 52(3), 310-324. <https://doi.org/10.1177/0047287512467699>
- Getz, D. (1989). Special events: Defining the product. *Tourism Management*, 10(2), 125-137. [https://doi.org/10.1016/0261-5177\(89\)90053-8](https://doi.org/10.1016/0261-5177(89)90053-8)
- Gössling, S., Scott, D., & Hall, C. M. (2020). Pandemics, tourism and global change: A rapid assessment of COVID-19. *Journal of Sustainable Tourism*, 29(1), 1-20. <https://doi.org/10.1080/09669582.2020.1758708>
- Guckenbiehl, P., & de Zubietaqui, G. C. (2022). Start-ups' business model changes during the COVID-19 pandemic: Counteracting adversities and pursuing opportunities. *International Small Business Journal: Researching Entrepreneurship*, 40(2), 150-177. <https://doi.org/10.1177/02662426211055447>
- Hampton, M. P., Jeyacheya, J., & Nair, V. (2023). Post-COVID tourism revealed: Evidence from Malaysia. *Annals of Tourism Research*, 103, Article 103671. <https://doi.org/10.1016/j.annals.2023.103671>
- Hanafiah, M. H., Balasingam, A. S., Nair, V., Jamaludin, M. R., & Mohd Zahari, M. S. (2021). Implications of COVID-19 on tourism businesses in Malaysia: Evidence from a preliminary industry survey. *Asia-Pacific Journal of Innovation in Hospitality and Tourism*, 10(1), 81-94.
- Happ, E., Schnitzer, M., & Scholl-Grissemann, U. (2023). Ski touring on groomed slopes—Exploring an alpine winter sports trend and potential tourism product. *Tourism Management Perspectives*, 48, Article 101155 <https://doi.org/10.1016/j.tmp.2023.101155>

- Haywood, K. M. (2020). A post COVID-19 future - tourism re-imagined and re-enabled. *Tourism Geographies*, 22(3), 599-609. <https://doi.org/10.1080/14616688.2020.1762120>
- Huang, H.-Y., Ku, E. C. S., & Chen, C.-D. (2022). Cloud infrastructure enhancing product competitive advantage of tourism SMEs on online consumption values of tourists. *Business Process Management Journal*, 28(4), 1146-1163. <https://doi.org/10.1108/BPMJ-05-2022-0246>
- Khairi, M., & Darmawan, D. (2021). The relationship between destination attractiveness, location, tourism facilities, and revisit intentions. *Journal of Marketing and Business Research*, 1(1), 39-50.
- Kim, K., Hallab, Z., & Kim, J. N. (2012). The moderating effect of travel experience in a destination on the relationship between the destination image and the Intention to revisit. *Journal of Hospitality Marketing & Management*, 21(5), 486-505. <https://doi.org/10.1080/19368623.2012.626745>
- Lachhab, S., Šegota, T., Morrison, A. M., & Coca-Stefaniak, J. A. (2022). Crisis management and resilience-the case of small businesses in tourism. In M. E. Korstanje, H. Seraphin, & S. W. Maingi (Eds.), *Tourism through troubled times: Challenges and opportunities of the tourism industry in 21st century* (pp. 251-270). Emerald Group Publishing Ltd. <https://doi.org/10.1108/978-1-80382-311-920221013>
- Leung, W. K. S., Cheung, M. L., Chang, M. K., Shi, S., Tse, S. Y., & Yusrini, L. (2022). The role of virtual reality interactivity in building tourists' memorable experiences and post-adoption intentions in the COVID-19 era. *Journal of Hospitality and Tourism Technology*, 13(3), 481-499. <https://doi.org/10.1108/JHTT-03-2021-0088>
- Li, J., Nguyen, T. H. H., & Coca-Stefaniak, J. A. (2020). Coronavirus impacts on post-pandemic planned travel behaviours. *Annals of Tourism Research*, 86, Article 102964. <https://doi.org/10.1016/j.annals.2020.102964>
- Luo, J. M., & Lam, C. F. (2020). Travel anxiety, risk attitude and travel intentions towards "travel bubble" destinations in Hong Kong: Effect of the fear of COVID-19. *International Journal of Environmental Research and Public Health*, 17(21), Article 7859. <https://doi.org/10.3390/ijerph17217859>
- Marios, S., Constantin, A., & Stelios, V. (2004). E-marketing and e-commerce in the tourism industry: A framework to develop and implement business initiatives. *Tourism Today*, 4, 157-169.
- Maziliauske, E. (2024). Innovation for sustainability through co-creation by small and medium-sized tourism enterprises (SMEs): Socio-cultural sustainability benefits to rural destinations. *Tourism Management Perspectives*, 50, Article 101201. <https://doi.org/10.1016/j.tmp.2023.101201>
- Melović, M., Baynazoğlu, M. E., & Šerić, N. (2023). Family businesses in tourism – the use of digital technologies in times of uncertainty and crisis. *Journal of Family Business Management*, 13(1), 185-209. <https://doi.org/10.1108/JFBM-06-2022-0086>
- Merriam, S. B. (2014). *Qualitative research: A guide to design and implementation* (2nd ed.). Jossey-Bass
- Ministry of Tourism, Arts, and Culture. (2020). *National Tourism Policy 2020-2030*. <http://www.motac.gov.my/muat-turun/category/114-dasar-pelancongan-negara-dpn-2020-2030>
- Musavengane, R., & Kloppers, R. (2020). Social capital: An investment towards community resilience in the collaborative natural resources management of community-based tourism schemes. *Tourism Management Perspectives*, 34, Article 100654. <https://doi.org/10.1016/j.tmp.2020.100654>



- Ngo, T. H., & Creutz, S. (2022). Assessing the sustainability of community-based tourism: a case study in rural areas of Hoi An, Vietnam. *Cogent Social Sciences*, 8(1), Article 2116812. <https://doi.org/10.1080/23311886.2022.2116812>
- Perić, M., Vitezić, V., & Badurina, J. Đ. (2019). Business models for active outdoor sport event tourism experiences. *Tourism Management Perspectives*, 32, Article 100561. <https://doi.org/10.1016/j.tmp.2019.100561>
- Rangsunghoen, G., Sroyetch, S., & Caldicott, R. W. (2023). Extending the Baldrige excellence model for managing community-based social enterprise. *Social Enterprise Journal*, 20(1), 1-31. <https://doi.org/10.1108/SEJ-01-2023-0001>
- Šerić, N., Milaković, I. K., & Peronja, I. (2024). Development process of a specialised tourism product. In *Specialised tourism products* (pp. 25-46). Emerald Publishing Limited. <https://doi.org/10.1108/978-1-83549-408-020241002>
- Sigala, M. (2020). Tourism and COVID-19: Impacts and implications for advancing and resetting industry and research. *Journal of Business Research*, 117, 312-321. <https://doi.org/10.1016/j.jbusres.2020.06.015>
- Simanjuntak, M. (2021). Designing of service dominant logic and business model canvas: Narrative study of village tourism. *Golden Ratio of Marketing and Applied Psychology of Business*, 1(2), 73-80. <https://doi.org/10.52970/grmapb.v1i2.60>
- Strulak-Wójcikiewicz, R., Wagner, N., Lapko, A., & Hacia, E. (2020). Applying the business model canvas to design the E-platform for sailing tourism. *Procedia Computer Science*, 176, 1643-1651. <https://doi.org/10.1016/j.procs.2020.09.188>
- Szromek, A. R., & Polok, G. (2022). A business model for spa tourism enterprises: Transformation in a period of sustainable change and humanitarian crisis. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(2), Article 72. <https://doi.org/10.3390/joitmc8020072>
- Tourism Malaysia. (2022). *Malaysia Tourism: Key Performance Indicator 2022*. [https://www.malaysia.travel/storage/files/pdf/Malaysia\\_Tourism\\_KeyPerformance\\_Indicators\\_2022.pdf](https://www.malaysia.travel/storage/files/pdf/Malaysia_Tourism_KeyPerformance_Indicators_2022.pdf)
- Traskevich, A., & Fontanari, M. (2023). Tourism potentials in post-COVID19: The concept of destination resilience for advanced sustainable management in tourism. *Tourism Planning and Development*, 20(1), 12-36. <https://doi.org/10.1080/21568316.2021.1894599>
- Troisi, O., Visvizi, A., & Grimaldi, M. (2023). Digitalizing business models in hospitality ecosystems: Toward data-driven innovation. *European Journal of Innovation Management*, 26(7), 242-277. <https://doi.org/10.1108/EJIM-09-2022-0540>
- Vipulan, P., Chan, N. W., Ghazali, S., & Rahim, A. A. (2023). Constraints in developing ecotourism based on protected areas: A case study of Jaffna District, Sri Lanka. *Pertanika Journal of Social Sciences and Humanities*, 31(3), 1179-1196. <https://doi.org/10.47836/pjssh.31.3.14>
- Wang, M., Yang, J., Hsu, W.-L., Zhang, C., & Liu, H.-L. (2021). Service facilities in heritage tourism: Identification and planning based on space syntax. *Information*, 12(12), Article 504. <https://doi.org/10.3390/info12120504>
- Zheng, D., Luo, Q., & Ritchie, B. W. (2020). Afraid to travel after COVID-19? Self-protection, coping and resilience against pandemic 'travel fear.' *Tourism Management*, 83, Article 104261. <https://doi.org/10.1016/j.tourman.2020.104261>



## **Meanings and Experiences of Survival Among Filipino Women Survivors of Abuse**

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### **ABSTRACT**

Most research focuses on the negative effects of violence on women, but not enough attention is given to potential positive outcomes. By understanding the importance of this perspective, it is essential to highlight the resilience and empowerment that can emerge from such experiences. A comprehensive, semi-structured interview was conducted with 10 Filipino women survivors of abuse to bridge this gap in the existing literature. This study explored the detailed experiences of these women, aiming to understand the deep meanings they associated with their overall survival journey. Results from Interpretative Phenomenological Analysis of qualitative data revealed that moving forward is reinforced by identifying sources of strength and a genuine acceptance of reality. Moreover, the findings established that women have the potential to harness resources and support from various spheres, including social networks, spirituality, employment, and even social media, to regain their empowerment. In the early phases of coping, the women primarily dealt with their emotional distress and sought instant relief. Over time, they were able to transcend their traumatic experiences, viewing their survival journey as a test of character, a journey of empowerment, affirmation and submission to God's purpose, a story brimming with hope and new possibilities, and a transformative shift in their perspective on marriage.

*Keywords:* Coping strategies, Filipino women, the journey of survival, the meaning of survival, women empowerment, women survivors of abuse

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## INTRODUCTION

The state recognizes the role of women in nation-building and shall ensure fundamental equality before the law of women and men, as enshrined in the 1987 Constitution of the Republic of the Philippines, Article 2. This provision is an important declaration recognizing women as indispensable in the affairs of the state. However, being a woman can be a double-edged sword, considering that some of her rights are not protected.

Violence against women is prevalent in all societies and has been identified as a global phenomenon. The World Health Organization (2024) and European Institute for Gender Equality (2022) estimate that 1 in 3 (30%) of women worldwide have experienced physical and/or sexual violence from a partner or non-partner at some point in their lives. The ramifications of this have harmed their lives and their children, posing a significant threat to society's well-being (Lombard & Mcmillan, 2013). This age-old issue and reality have gained urgency (Garcia-Moreno & Watts, 2011) because of the significant work of women advocates and survivors in shedding light on the issue (Crann & Barata, 2019).

Violence against women has long persisted in the Philippines (Bautista, 2023; Philippine Statistics Authority, 2018; Valdez et al., 2022), where the patriarchal family structure and cultural expectation of wives' submission to their husbands (Bernarte et al., 2018; Estrellado & Loh, 2016; Gregorio & Arguelles, 2020) make Filipino women particularly vulnerable.

Numerous studies have explored the types of abuse (Komaruddin, 2019), their impact on women's physical, emotional, and psychological health, and the factors contributing to violence (Abbas et al., 2023; Ahmad-Stout et al., 2021; Ali et al., 2018; Batool et al., 2016; Christaki et al., 2023; Clemente-Teixeira et al., 2022; Frank et al., 2024; Masongsong, 2023; Mellouki et al., 2023; Padmapriya & Alagesan, 2024; Sachdeva & Sharma, 2024; Shoib et al., 2022), as well as why women remain in abusive relationships (Brown, 2014; Co et al., 2019; Gregorio & Arguelles, 2020; Labrague, 2022; Superable, 2018; Valdez et al., 2022).

However, limited research exists on how women survivors recover and find meaning in their past abusive relationships, especially within the local contexts. While several studies highlighted the negative effects of abuse on women, such as powerlessness, submissiveness, and defenselessness, there is a gap in understanding the positive outcomes and empowerment that women may experience after escaping abusive relationships.

This study underscores the strength that enabled these women to escape their traumatic situations, contributing to the growing corpus of knowledge on women's capacity for self-liberation and social empowerment. Moreover, this research can help the community better understand the complexities of transitioning from victim to survivor, fostering empathy and encouraging others to find the courage to break free.

## Theoretical Framework

Feminist theory aims to discover how people interact within systems and potentially provide solutions to confronting and eliminating oppressive systems and structures. Feminist theory takes into account the lived experiences of all individuals, with a focus on oppression. While there is no consensus on where feminist theory fits as a theory or paradigm, disrupting oppression is a central tenet of feminist work (Arinder, 2020).

Feminist theory's fundamental principles are sex, gender, race, discrimination, equality, diversity, and choice. There are systems and mechanisms in place that discriminate against individuals with these characteristics, as well as against equality and equity. Critical paradigm research needs the premise that truths can be disclosed by exploring the existing conditions in the current social order. More importantly, this exploration can raise awareness of oppressive structures while providing spaces for various voices to speak for themselves (Egbert & Sanden, 2019). Feminism is a movement to end sexism, sexist exploitation, and oppression (Hooks, 2000).

Feminist theories emphasize the empowerment of women as a way of liberating them from abusive relationships. Women empowerment refers to enhancing women's social, economic, political, and legal positions to ensure equal rights, opportunities, and decision-making abilities, consequently leading to their self-worth, dignity, and autonomy (Jain, 2023; Princy, 2023; Reshi & Sudha, 2022; Sen et al., 2023).

Women empowerment entails women's ability to make strategic life choices where that ability had been previously denied them (Malhotra et al., 2009).

Breaking off an abusive relationship is a difficult process that typically involves several attempts and stages (Childress et al., 2021). At the onset, victims attempt a variety of strategies to address their circumstances (Bermea et al., 2020). Women often decide to leave when they reach a turning point—a critical event or a moment of realization where the situation becomes unbearable (Basilio et al., 2022; Heron et al., 2022; Sani & Pereira, 2020).

The type and quality of support from formal and informal sources, provided during and after the separation, have been recognized as important factors influencing the decision to stay or leave (Ekström, 2015; Notko et al., 2022; Oyewuwo-Gassikia, 2020; Taket et al., 2014). Personality characteristics (Estrellado & Loh, 2013), access to external resources (Barrios et al., 2021), obtaining a protection order (Buchbinder, 2020), survivor-centered interventions (Cattaneo et al., 2020), support from family, friends, and related organizations (Abulon, 2014; Baholo et al., 2014; Okedare & Fawole, 2024), and forming a new intimate relationship (Ko & Park, 2020) impact the likelihood of successfully leaving significantly. Furthermore, demographic factors such as age (Keeling et al., 2016), ethnicity (Heron et al., 2022), education (Marium, 2014; Zhou et al., 2021), and occupational status (Ben-Porat & Reshef-Matzpoorn, 2023) play

a crucial role in influencing the decision-making process.

Scholars and practitioners have explored the role of religion (Pertek et al., 2023) and faith-based organizations (Bowland et al., 2012; Braganza et al., 2021) in shaping the experiences of gender-based violence. Religious beliefs and communities offer women meaning, support, and safety within intimate spaces (Landman & Mudimeli, 2022; Pertek et al., 2023). This spiritual framework enhances survivors' psychological resilience by fostering hope, optimism, self-efficacy, and overall psychological well-being (Murphy & Anstiss, 2022).

## METHODS

This study used a phenomenological inquiry approach to examine women's survival experiences of abuse. The phenomenological approach best captures people's perspectives and curiosity about their lives or practices because it is more concerned with comprehending how individuals interpret their experiences, create their worlds, and give meaning to their experiences (Merriam & Tisdell, 2016).

Furthermore, phenomenology is a qualitative approach that seeks to explain the meaning of the lived experiences of individuals (Moran & Mooney, 2002). For this study, the phenomenon of survival was culled out through describing and understanding the lived experiences of women survivors. The phenomenon was

elicited based on their own experiences of survival and the meaning they attribute to their entire experience of moving on with their life and starting a new chapter. In the conduct of phenomenological methods, a researcher must be in direct contact with the phenomenon itself, assume that he/she does not know the phenomenon but wishes to, and use methods that will portray human experience in experiential terms (Seamon, 2000).

Data saturation of women's experiences of abuse was reached by Participant 10. Hence, the study utilized ten (10) participants (Table 1). While both men and women can become victims of abuse, women seek treatment more often because men must first overcome internal and external obstacles (Galdas et al., 2005).

Participants were recruited through purposive sampling. The major tool was a semi-structured, open-ended interview guide. Interviews were recorded and transcribed for analysis. Journal writing was also used to supplement data collection. During this procedure, the researchers' insights and reflections were written to bracket out preconceived assumptions and opinions about the phenomenon being studied. The researchers used Interpretative Phenomenological Analysis to examine participants' personal stories and narratives meticulously. The researchers elaborate on the experiential themes, combined with the researchers' critical analysis, which describes double hermeneutics in interpretative phenomenology.

Table 1  
*Socio-demographic profile of the participants*

Participant	Age	Civil status	Religion	Highest educational attainment	Occupation	Number of years not living with the abuser
P1	41	Married	Born Again	Bachelor's Degree	Businesswoman	16
P2	30	Married	Church of the Nazarene	Bachelor's Degree	Accountant	3
P3	50	Married	Roman Catholic	Bachelor's Degree	Administrative Staff	4
P4	35	Married	Roman Catholic	Bachelor's Degree	Instructor	4
P5	41	Married	Roman Catholic	Master's Degree	Instructor	10
P6	23	Single	The Christian Spiritist in the Philippines	Bachelor's Degree	None	11
P7	45	Married	Jesus is Lord Church	Completed Secondary Education	Sales personnel	5
P8	37	Married	Roman Catholic	Master's Degree	Science Research Specialist	15
P9	38	Married	Roman Catholic	Bachelor's Degree	Government Employee	7
P10	57	Married	Roman Catholic	Bachelor's Degree	Motivational Speaker	17

### Ethical Consideration

Since the study targeted women survivors of abuse, informed consent was strictly used. Experts in clinical psychology and counseling validated the interview guide to ensure the items were relevant and psychologically safe to administer. The instrument was pilot-tested with one participant not on the final list. To guarantee the utmost confidentiality of the participant's responses and preserve the secrecy of their identities, the researchers adhered to the stipulations outlined in Republic Act No. 10173, otherwise known as the Data Privacy Act of 2012. As such, pseudonyms were

utilized during the transcription process. All interview audio recordings and transcripts were kept in password-protected files on a hard drive that is further secured under lock and key. In an effort to safeguard their privacy, the interviews were held in safe and private locations, far from any potential physical threats. In addition, no visual documentation in the form of videos or photographs was captured.

### RESULTS

The findings yielded a survivor pathway toward the women empowerment model (see Figure 1).

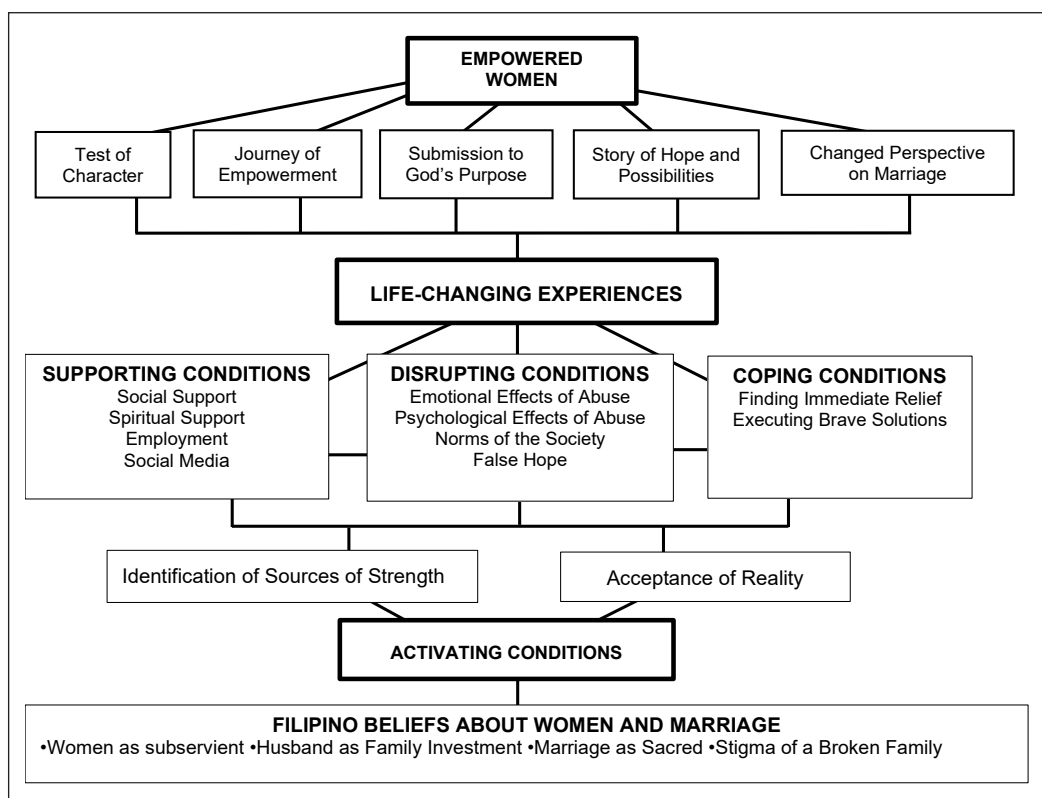


Figure 1. Survivor pathway toward women empowerment model

The model outlines a pathway describing how women reach a stage of empowerment after experiencing abuse. Women survivors exhibited significant courage and took considerable time before deciding to let go and break away, influenced by cultural factors. Cultural beliefs portraying women as meek, obedient, and subservient contributed to their unhealthy tolerance of abuse. Additionally, family members often viewed marriage as an investment that enhanced the family’s status in the community. Women were led to believe that a compliant husband would ensure a happy and comfortable life, as marriage is seen as an honor to the family tree. Moreover, marriage was considered sacred,

and breaking away from it was perceived as a moral sin. As a result, many women endured abuse to preserve the sanctity of marriage and avoid being judged within the conservative culture of the Philippines, where close family ties are deeply valued. In some cases, women also tolerated abuse to protect their children from the stigma of coming from a “broken home” and to maintain the image of a complete family. These cultural, familial, and societal expectations delayed the decision to move on. However, once women realized they could rely on the affection and support of their family members, they found the motivation to move forward and achieve empowerment.



The support from close family and local organizations played a crucial role in accelerating the women's decision to move on. These supporting conditions were often interconnected with disrupting conditions, and together, they shaped the survivors' journeys. Coping mechanisms emerged as critical elements in their healing process. These supporting, disrupting, and coping conditions contributed to life-changing experiences collectively. Through these experiences, the women found meaning and purpose in their lives, allowing them to rise above their past and emerge as empowered survivors.

## Motivations Towards Survival

### *Identification of Sources of Strength*

This theme reflects the recognition of key elements that provide women with the resilience, motivation, and support to overcome challenges and adversity. These sources include personal relationships, such as family and children, as well as spiritual beliefs that offer comfort and perspective. By identifying these sources of strength, the women gained the emotional and psychological support necessary to heal and move forward, altering their trajectory away from abuse.

Nine out of 10 women survivors revealed that their primary sources of strength were their children, family members, and faith in God. As P4 articulated,

I have two young lives who are dependent on me. I wasn't able to find a reason for myself, but I've chosen to live for my kids. (P4)

P1 described how her faith allowed her to reframe the attack and gain a clearer perspective on her situation:

Despite the entire situation, God still orchestrated everything for a purpose; in the end, I realized it was my victory because I am with my child, and I see her as a gift from the Lord. (P1)

### *Acceptance of Reality*

This theme essentially alludes to women's recognition of their unfavorable situation, which became a catalyst for ending the abuse. Upon realizing the futility of trying to change their husband's behavior, they made the brave decision to leave. Reaching a critical turning point, the survivors accepted their reality and recognized that trying to salvage their marriages was no longer viable. P4 recounts her journey of commitment, betrayal, hope, and, ultimately, the moment she decided to move forward with her life.

When I love, I love hard, so the infidelity was so devastating for me. I realized that I needed to move on after I killed hope—hope for reconciliation, hope of him asking forgiveness from me and admitting his mistake, hope of saving my family from being broken, and hope that everything will fall into place. I have learned to accept the reality that these things will never happen. I decided to stop the misery. If they are happy, I told myself, I should be happier. Life must go on! (P4)

The women survivors' acceptance of reality sparked an awakening of the self, marking a turning point in their journey. This awakening involved re-establishing their sense of self, accompanied by the realization that they had the power to change their circumstances. After enduring years of physical and emotional abuse, they ultimately reached a breaking point that empowered them to take control and reshape their lives.

I was in a manipulative relationship. Instead of praising me for being great, he was putting me down, and I believed him even if he told me that he just picked me up from the trash until I got robbed. Instead of helping me, he hurt me. I told myself that it was the last straw. That night, I finally left without bringing anything. (P10)

## **Personal Coping Strategies**

### ***Finding Immediate Relief***

During their most challenging moments, women survivors turned to accessible and convenient coping strategies for immediate relief. These short-term solutions provided brief comfort as they endured the abusive relationship. Many participants found solace in intentional, temporary activities that helped them cope, such as detaching from the source of stress, engaging in recreational or solitary activities, and practicing positive thinking. Four women specifically noted that distancing themselves from the source of their stress brought them immediate comfort at the height of the abuse. They shared,

I constantly went home to the province. Simply being home brings a feeling of comfort and security. We don't need to talk things over. Their presence is enough. (P4)

I started to go back to writing. My columns and my creative outputs, like writing, hosting radio shows, producing TV shows, and going back to the radio show for several seasons, were my coping strategies. (P9)

Being alone and engaging in solitary moments have refueled the depleted energy of women survivors at the time of the abuse. For instance, P1, who was so expressive at the time of the interview, was a living example of the thought that going back to the basics can rejuvenate the mind and the heart. As she disclosed,

I sought the words of God. I discovered books on which I focused my attention. I read self-help and success story books, including online blogs about self-love. Another thing that helped me was writing a journal. I put into writing all of my emotional baggage and the pain that I felt. (P1)

Positive thinking was a significant coping mechanism for P2, helping to alleviate feelings of animosity, anger, and dependence. During her reflective moments, she recognized that maintaining a positive outlook was life-changing and fulfilling. P2 revealed,

I thought about the positive aspects of him, and it made me feel lighter. It changed my life, my whole perspective, and a lot more; there is a lot ahead of me. It is very fulfilling that I do not need to seek the approval of other people or affection from him because I am already complete on my own. I started loving myself. (P2)

### ***Executing Brave Solutions***

This domain encompasses courageous, daring, self-renewing, and bold undertakings that are not easily seen as available or convenient alternatives to cope with the situation. These coping strategies are oftentimes seen as difficult choices, but they offer a long-lasting solution to the situation. It confronts the most difficult emotion and/or person who caused pain to the survivor. Hence, it is a brave coping strategy. Included in this domain are thriving initiatives, reaching out, and releasing forgiveness.

P4 was a highly competent woman with a good educational background. She has a good career. With her experience of abuse, she even developed herself and initiated self-development activities that heightened her self-worth and value.

I keep reminding myself that the greatest way to get revenge is for them to see me accomplished and living a good life. I went back to school and earned another degree and license, but I was not allowed any opportunity to advance in my career to slip through my fingers. (P4)

Aside from developing resilience, women have found bold coping initiatives through the exploration of something that they were not able to do prior to the abuse. At some point, women have challenged their abilities and skills and dared to go beyond their comfort zone.

I fixed my life. I found a job to support the needs of my child and parents. I even finished my master's degree, and it is a very great accomplishment for me. I felt like I had proved something when I received my diploma. (P8)

I also have not explored my entrepreneurial side before. Now, I produce a lot of essential oils, blends, and other stuff. I showcased my accessories and oils. I would join tournaments and concentrate so much on that. (P10)

The gradual discovery of their abilities and the opportunities to realize them became evident in the actions of these women survivors. During the time of abuse, several survivors found strength in reaching out to others, a challenging path due to societal expectations that women remain quiet, submissive, and self-sacrificing out of fear and dependence on the abusers. Stigma, often exacerbated by a patriarchal culture that encourages victim-blaming, has traditionally kept women silent. However, this study revealed that many survivors courageously broke this cycle by reaching out, speaking up, and seeking support. This

step significantly boosted their confidence and provided relief.

I told my family everything; there was no way of covering him up this time, and the feeling of heaviness within was lessened. (P4)

Forgiveness also emerged as a notable coping mechanism. Although less frequently employed, forgiveness has a profound and lasting impact on those who embrace it. For these women, the act of forgiveness offered a therapeutic release, allowing them to heal. Some women shared brief testimonies about how extending forgiveness positively affected their lives:

I started to learn how to forgive. I no longer feel any emotional burden. (P2)

When I forgave him, my hatred for him disappeared. (P5)

## **Meanings Attributed to the Experience of Abuse**

### ***Test of Character***

This domain describes the development of character, which would not manifest otherwise if the abuse had not happened in their lives.

P4 is a woman with a strong disposition who is independent and driven in her goals. When an unlikely circumstance came into her life, she confidently handled it with strength. She remarked,

Whatever life throws at you, confidently catch and hold it, but just for a moment; don't let it stay long. Gain enough

strength and throw it back more forcefully and hastily. (P4)

P9 has chosen to be a single parent for seven years now, and she is confidently playing this role because of her innate tenacity and determination. Her experience further tested her character and even brought out acceptance in the process of going through it. In her own words, there was profound peace when she said,

God will not give us burdens we cannot bear, so it is a way to put our character to the test. I've come to embrace and accept it as a phase that I have to go through in my journey as part of my personhood since no one's story is the same. This is an important part of my story. (P9)

P1, who had gone through a seemingly insurmountable experience when she was in a state of abuse, saw that her experience actually pruned her to let go of unnecessary character in her life. She disclosed with conviction,

I believed the Lord had stripped out the unnecessary characters in my life. Just like a catastrophe, there are typhoons that cause a lot of damage, but after that, they get rebuilt and repaired. (P1)

In this domain, women survivors attributed their newfound strength to their experience of abuse. They discovered qualities within themselves—such as inner fortitude, self-assurance, self-discipline, ambition, optimism, and hope—that they had not recognized before. These traits

emerged as they navigated their challenges and became a source of continuous support, allowing them to move forward with resilience and determination.

### *Journey of Empowerment*

This domain highlights empowerment as a journey toward self-realization. Two key themes of empowerment emerged from the women's experiences: empowering the self and empowering others.

For 17 years, P10 endured an abusive relationship, during which she faced the challenges of safeguarding her own life and that of her children, all while seeking solace and joy. The novel "Journey" jolted her back to the present as she related to the protagonist, who managed to break free from an abusive partner, sparking renewed hope. She felt it was her story and found the courage to move on and stand up. She can interpret her experience as having meant "freedom" for her, including freedom from violence, abuse, fear, and the ability to make decisions without considering the repercussions.

When I decided to do things, I would be hit or reprimanded by him. Before, it was always about him. But now, it is about me—my happiness. (P10)

P2 was also hooked on a miserable relationship that robbed her of experiencing genuine happiness. Her experience empowered her to search for it. She remarked,

I realized that we can change our circumstances by choosing to be happy

and by deciding to get out of that situation. A decision is very important. (P2)

Finding the courage within themselves cascaded into reaching out to others to become instrumental and be of value to those who were still in the situation. P9, who was highly pampered by her family as the youngest child, never imagined that she would end up with a man who is financially controlling and mentally torturing. When she finally found herself and started loving more of who she was, her worldview broadened to empathize with those in a similar situation. In her own words, she calmly and humbly shared,

It also made me a more humane person; it taught me a lot about being humane, and since then, I've made it a point to be kinder to people, knowing that they may be going through a really tough time. I became more compassionate by assisting single parents. (P9)

Women survivors now value the empowerment and freedom they have achieved. This sense of empowerment, arising from their experiences of abuse, is the result of years spent in manipulative relationships that restricted their freedom and suppressed their true selves.

### **Affirmation and Submission to God's Purpose**

This theme acknowledges the sovereignty of God's plans and their positive outcomes. It allows women to affirm God's will while navigating the uncertainties of a divine

plan from an all-knowing Supreme Being. Submission involves willful obedience to events beyond human understanding. P1's affirmation is particularly striking when she says:

I became more resilient. I am no longer the person who easily gives up in times of difficulty. I believe it will come to pass. I will definitely overcome this because God has a plan for me. (P1)

P7 clutched onto the promises of the scriptures as her guiding assurance that God's plans were not in vain. She elaborated,

God has a plan for why it happened. It is probably up to us to find what will truly make us happy. It is also God's way of drawing us closer to Him, so we should trust Him. (P7)

In P7's narrative, she described how God communicated with her throughout her journey, influencing her decision not to challenge Him during her quest for survival. She recounted with enthusiasm her realization of this when she said,

I realized God was trying to tell me I could overcome it! You should not feel down! You should not live like that! (P7)

### ***Story of Hope and Possibilities***

After leaving the unhealthy relationship, women found meaning in believing in hope with endless possibilities for a brighter future. For most of the women survivors, hope is what sustained their decision to

continue moving on. In hope, they could see the world and experience the things they were longing for. P8 never thought she could reach a state where she could be in a place completely opposite the life she had with her former partner. Projecting a sincere and grateful smile, she elaborated,

Right now, I am living a happy and contented life. My husband and I are civil toward each other even after the annulment. I found a new partner who loves me and accepts my dark past. My new husband and I have a child now. (P8)

Coming from a family where all her siblings did not end up well with their spouses, P9 was shattered and frustrated by facing the same scenario. She hopes to raise her daughter in a family where parenting is shared under one roof. Nevertheless, she regarded this stage as a significant chapter that is not yet finished. She revealed,

I've come to embrace and accept it as a phase that I have to go through in my journey as part of my personhood since no one's story is exactly the same. This is an important part of my story. Whatever the outcome, whatever happens after this, I really don't know. But I think my story will not be complete without this or having gone through this. It is really part of who I am. But it does not define who I can or will become. I guess I have risen above it. (P9)

### ***Changed Perspective on Marriage***

This theme underscores the realization that looking at marriage is not always a bed of roses, as projected in films that women adore and glorify. This changed perspective is anchored on real experiences that others may not be aware of. In the narratives of women survivors, it is apparent that their advocacy for selecting a lifetime partner has significantly changed because marriage is a lifetime commitment. The pain and difficult moments associated with marriage boil down to the decision of whom a woman will commit to marrying. True enough, P3 was so vocal and assertive in her insights about marriage. She discussed,

You should not rush but rather know the man you are to marry well. We actually got married because I got pregnant, but I was not actually ready. You need to know the person really well; otherwise, you will regret it in the end. Once you observe that he is respectful and loving towards his mother, he will surely love his family. My former partner does not show any respect to his mother, including his sibling. (P3)

Similarly, P9's ideals for choosing a partner go back to family preferences that characterize the ideals of a husband or partner. Growing up in a close-knit family where elders always have a 'say' on who they want their children to marry, she said,

Our parents would usually tell us that we should marry someone who is a college graduate and employed at the

same time. A\_\_\_ might be an engineer, a CumLaude, but what happened to us? (P9)

### **DISCUSSION**

The women survivors identified various motivations for survival. They derive strength from their children and family members, faith in God, and acceptance of reality. Studies show that mothers who prioritize their parental role to ensure the safety of their children (Crawford et al., 2009; Estrellado & Loh, 2014; Sorsa et al., 2023) and aspire to regain control over decision-making (Sukeri & Man, 2017) enhance their resilience. Consistent with previous research (Heron et al., 2022; Miller & Manzer, 2021; Sani & Pereira, 2020), our findings reveal that women leave abusive relationships when they can no longer endure the abuse and become concerned for their children's welfare. Further, faith in God emerged as a significant factor in helping women escape violent relationships, supporting previous studies (Bowland et al., 2011; Gillum et al., 2006; Pooler & Barros-Lane, 2022) that link faith with optimism. Similarly, Senter and Caldwell (2002) found that women survivors described their feelings for God as deeply emotional, heightened by their struggles and special experiences with the Supreme Being. Acceptance of reality, coupled with the perpetrator's indifference, often served as the final push for women to leave. Warner et al. (2004) support this by showing that reaching a breaking point is what compels a woman to leave her violent partner.

In terms of supportive factors that ignited survival, social support networks, spiritual support, employment, and social media played a pivotal role in helping women rebuild their lives without aggression. Women found empowerment by connecting with others who shared similar experiences and identities. Research (Santos et al., 2017; Skop et al., 2022; Tutty, 2024) has shown that therapy groups for survivors of intimate partner violence offer transformative and positive experiences. Group work with female survivors fosters an empowering space that allows women to reclaim their voices through female-specific support systems. However, survivors also faced significant challenges on their journey to recovery, including the emotional and psychological consequences of abuse and societal norms. Zambil (2017) noted that domestic abuse eroded survivors' self-esteem and exacerbated their sense of isolation. Many survivors felt that their abusers had stripped them of their self-worth. In the Philippines, where strong family ties are deeply valued, the stigma of a broken family is particularly pronounced (Aglia et al., 2024), especially for women who are often expected to uphold familial unity (Raposas, 2008).

Women emerged to be resourceful in utilizing their personal coping strategies to search for immediate relief and take risks in making brave actions. This reflects a key aspect of empowerment theory, which emphasizes the value of taking action to counter feelings of helplessness experienced by members of stigmatized groups. By

taking such steps, individuals can reclaim control and influence over their personal and professional lives (Gunnarsdóttir et al., 2021; Montes et al., 2021; Slabbert, 2017). Through this process, women regained a sense of control and mastery over their lives—something they were denied during the period of abuse.

As women progress towards survival, they attribute various meanings to their experiences, such as tests of character, the journey of empowerment, affirmation and submission to God's purpose, the story of hope and possibilities, and changed perspectives on marriage. These experiences foster significant psychological growth, leading to a stronger sense of self after a life crisis (Dell'Osso et al., 2022). Post-traumatic growth involves positive changes in behavior and personality following a severe life event. The feminist model, which addresses how male violence stems from historical and contemporary power imbalances that perpetuate women's subordination through control and abuse (Li, 2023), guides efforts to support those still in abusive relationships. This model promotes self-determination and female empowerment, recognizing women's agency, strength, and resilience. Consequently, these survivors often become advocates and voices for other women facing abuse.

Many survivors of domestic abuse regarded their spirituality and sense of self within their religious group as essential elements of their identity and experience (Faizah, 2023; Kaufman et al., 2020; Landman & Mudimeli, 2022; Quing, 2021).



They framed their experiences of abuse and healing within the context of their faith, viewing it as a source of strength and guidance. This is consistent with the concept of active hope, which emphasizes the proactive steps individuals take to confront daily challenges—hope is seen as an action rather than a passive state (Johnstone, 2014). This aligns with studies of domestic abuse survivors, who each developed their methods for leaving violent relationships, driven by hope and the desire for independence. Furthermore, the shifts in their standards for choosing a partner reflect the flexibility of personal constructs or schemas as individuals adapt their interpretations based on new experiences. As George Kelly's (Cherry, 2023) theory suggests, these constructs are subject to change as people incorporate new insights into their worldviews.

## CONCLUSION

Interventions should always include connecting these women to organizations or significant others like family, friends, and colleagues to strengthen the support system. When providing psychosocial support services, immediate relief has to be provided, and personal coping strategies have to be checked to assist women in exploring available and accessible recreational activities such as sports, spiritual, artistic, entrepreneurial, and solitary reflective activities. The importance of growing self-reliance, forgiveness, disclosure, and reconciliation in individual and community interventions should be incorporated, as

they are useful strategies to bring long-term consequences to women's survival journeys.

Women survivors can be trained to give psychosocial support services to other women survivors of abuse. Front-line responders to women survivors, such as local government officials, police, and social workers, may reconsider their guidelines and policies in order to institutionalize gender-responsive and affirmative activities that support the empowerment of women, such as the reinforcement of women's desks, advocacy campaigns on women's rights, and recognition of women's role in the economic and political spheres of influence.

## Implications of the Study

The study contributes to feminist theories by demonstrating how women find positive meanings and personal growth in their experiences of abuse. This challenges traditional feminist views that emphasize victimization and powerlessness. By highlighting survivors' agency in reshaping their narratives and reclaiming strength, the study enriches feminist discourse with new insights into resilience and empowerment. It expands the feminist framework to encompass not only overcoming adversity but also achieving positive outcomes and self-empowerment beyond mere victim status.

The results suggest that cascading life skills and competencies among frontliners that cater to women victims of abuse, like the local government officials, police, social workers, first aid responders, and volunteer groups, are necessary. Training

them in psychological debriefing, supportive communication, and empathic listening is crucial. On a micro level, one-stop-shop services can be activated in the local government units where immediate mental health support is made available, such as mental health first aid, referral services, and therapeutic intervention can be made available to women in distress. Legal services can be made accessible by installing free legal assistance in social welfare agencies so women survivors can be equipped with informed and legal alternatives that are rights-based. Community advocacy groups can initiate advocacy programs about gender violence to educate women on their rights and the different opportunities to save themselves. Platforms like the local media can feature stories of survival among women and also include informative news about protocols for reporting and responding to women's cases of abuse. Moreover, local and national agencies working with women survivors should increase the availability of responsive, inclusive, and comprehensive intervention and recovery programs.

### **Limitations and Recommendations for Future Research**

This study focused on the phenomenon of survival among women survivors of abuse; hence, future studies may delve into longitudinal studies to examine risk factors and positive sustaining factors to document patterns in personal and interpersonal adjustments. Evaluation and impact studies on community services availed of by this population can be conducted to investigate if

these services have contributed significantly to their overall recovery and wellness.

Future research could explore case studies on the quality of relationships among women survivors who decided to remarry after years of being in abusive marriages. Moreover, while this study magnifies women survivors, it also opens doors to understanding the experiences of men who have survived abusive relationships with female partners as abusers. This could provide a more comprehensive view of the dynamics of abusive relationships and offer insights into the support needs of all survivors, regardless of gender.

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### **REFERENCES**

- Abbas, S., Batool, Z., & Ashraf, M. (2023). Exploring the nexus of domestic violence: Impact on married women's physical health, psychological distress, and magnitude of abuse. *Pakistan Journal of Humanities and Social Sciences*, 11(3), 3287-3296. <https://doi.org/10.52131/pjhss.2023.1103.0612>
- Abulon, E. (2014). Breaking through the bondage of abuse: Case studies of six Filipino battered women. *International Journal of Research Studies in Psychology*, 3(4), 59-75. <https://doi.org/10.5861/ijrsp.2014.865>
- Agliam, D. G., Bongolto, K. L., Pobeda, G. R., Vega, P. J., & Vallespin, M. R. D. (2024). A comprehensive literature review of marital dissolution in the Philippines: Legal, socio-cultural, and feasibility

- perspectives. *International Journal of Current Science Research and Review*, 7(5), 2596-2603. <https://doi.org/10.47191/ijcsrr/v7-i5-19>
- Ahmad-Stout, F., Nath, S. R., Khoury, N. M., & Huang, H. (2021). Experiences of intimate partner violence: Findings from interviews with South Asian Women in the United States. *Journal of Interpersonal Violence*, 36(3-4), 1941-1964. <https://doi.org/10.1177/0886260517753850>
- Ali, M. N., Nur, Y., & Basir, F. (2018). The analysis of husband violence action on wife in the household in Palu City [Analisis tindakan keganasan suami terhadap isteri dalam rumah tangga di Bandar Palu]. *Asian Journal of Environment, History and Heritage*, 2(2), 209-216.
- Arinder, J. (2020). Feminist theory. In J. Egbert & M. F. Roe (Eds.), *Theoretical models for teaching and research*. Pressbooks. <https://opentext.wsu.edu/theoreticalmodelsforteachingandresearch/chapter/feminist-theory/>
- Baholo, M., Christofides, N., Wright, A., Sikweyiya, Y., & Shai, N. J. (2014). Women's experiences leaving abusive relationships: A shelter-based qualitative study. *Culture Health & Sexuality*, 17(5), 638-649. <https://doi.org/10.1080/13691058.2014.979881>
- Barrios, V. R., Khaw, L. B. L., Bermea, A., & Hardesty, J. L. (2021). Future directions in intimate partner violence research: An intersectionality framework for analyzing women's processes of leaving abusive relationships. *Journal of Interpersonal Violence*, 36(23-24), NP12600-NP12625. <https://doi.org/10.1177/0886260519900939>
- Basilio, D. D., Guglielmucci, F., & Livanou, M. (2022). Conceptualizing the separation from an abusive partner as a multifactorial, non-linear, dynamic process: A parallel with Newton's laws of motion. *Frontiers in Psychology*, 13, Article 919943. <https://doi.org/10.3389/fpsyg.2022.919943>
- Batool, S. F., Noushad, S., Alataf, M., & Ahmed, S. (2016). Inevitable scars; A study on traumatic verbal, emotional and physical abuse distressing females. *International Journal of Women Empowerment*, 2(1), 41-45. <https://doi.org/10.29052/2413-4252.v2.i1.2016.41-45>
- Bautista, A. C. (2023). Investigating rape culture in the Philippines through #HijaAko: Towards a multimodal critical discourse analysis. In M. Hadzantonis & A. H. Omar (Eds.), *The GLOCAL Conference Proceedings Series. The GLOCAL in Asia 2022* (pp. 115-130). The GLOCAL, the Global Council for Anthropological Linguistics Publishers. <https://doi.org/10.47298/cala2022.4-2>
- Ben-Porat, A., & Reshef-Matzpoorn, A. (2023). Stay-leave decision-making among women victims of domestic violence in Israel: Background, interactional, and environmental factors. *Journal of Interpersonal Violence*, 38(3-4), 3688-3710. <https://doi.org/10.1177/08862605221109901>
- Bermea, A. M., Khaw, L., Hardesty, J. L., Rosenbloom, L., & Salerno, C. (2020). Mental and active preparation: Examining variations in women's processes of preparing to leave abusive relationships. *Journal of Interpersonal Violence*, 35(3-4), 988-1011. <https://doi.org/10.1177/0886260517692332>
- Bernarte, R. P., Acedegbega, Q. M., Fadera, M. A., & Yopyop, H. G. (2018). Violence against women in the Philippines. *Asia Pacific Journal of Multidisciplinary Research*, 6(1), 117-124.
- Bowland, S., Biswas, B., Kyriakakis, S., & Edmond, T. (2011). Transcending the negative: Spiritual struggles and resilience in older female trauma survivors. *Journal of Religion, Spirituality & Aging*, 23(4), 318-337. <https://doi.org/10.1080/15528030.2011.592121>
- Bowland, S., Edmond, T., & Fallot, R. D. (2012). Evaluation of a spiritually focused intervention with older trauma survivors. *Social Work*, 57(1), 73-82. <https://doi.org/10.1093/sw/swr001>

- Braganza, M. E., Hoy, S., & Lafrenière, G. (2021). They are my family: Exploring the usage of spiritual and religious supports by survivors of intimate partner violence. *Journal of Religion & Spirituality in Social Work, 41*(1), 23-50. <https://doi.org/10.1080/15426432.2021.1955427>
- Brown, J. (2014). Factors related to domestic violence in Asia: The conflict between culture and patriarchy. *Journal of Human Behavior in The Social Environment, 24*(7), 828-837. <https://doi.org/10.1080/10911359.2014.884962>
- Buchbinder, E. (2020). The meaning of the protection order for abused women in Israel. *Journal of Social Service Research, 47*(1), 47-55. <https://doi.org/10.1080/01488376.2019.1711294>
- Cattaneo, L. B., Stylianou, A. M., Hargrove, S., Goodman, L. A., Gebhard, K. T., & Curby, T. W. (2020). Survivor-centered practice and survivor empowerment: Evidence from a research-practitioner partnership. *Violence Against Women, 27*(9), 1252-1272. <https://doi.org/10.1177/1077801220935196>
- Cherry, K. (2023, November 11). *George Kelly and his personal construct theory*. Verywell Mind. <https://www.verywellmind.com/george-kelly-biography-2795498>
- Childress, S., Panchanadeswaran, S., & Joshi, M. (2021). Leaving and beyond: Voices of survivors of domestic violence from Kyrgyzstan. *Journal of Interpersonal Violence, 36*(3-4), 1718-1744. <https://doi.org/10.1177/0886260517743550>
- Christaki, C., Orovou, O., Dagla, D., Sarantaki, S., Moriati, M., Kirkou, K., & Antoniou, A. (2023). Domestic violence during women's life in developing countries. *Materia socio-medica, 35*(1), 58-64. <https://doi.org/10.5455/msm.2023.35.58-64>
- Clemente-Teixeira, M., Magalhães, T., Barrocas, J., Dinis-Oliveira, R. J., & Taveira-Gomes, T. (2022). Health outcomes in women victims of intimate partner Violence: A 20-year real-world study. *International Journal of Environmental Research and Public Health, 19*(24), Article 17035. <https://doi.org/10.3390/ijerph192417035>
- Co, K. C. D., Bermudez, A. N. C., & De Guzman, M. R. E. (2019). Type and severity of intimate partner violence and formal help-seeking among women in the Philippines. *Philippine Journal of Health Research and Development, 23*(2), 1-9.
- Crann, S. E., & Barata, P. C. (2019). We can be oppressed but that does not mean we cannot fight oppression: Narratives of resilience and advocacy from survivors of intimate partner violence. *Journal of Interpersonal Violence, 36*(17-18), 8004-8026. <https://doi.org/10.1177/0886260519848779>
- Crawford, E., Liebling-Kalifani, H., & Hill, V. (2009). Women's understanding of the effects of domestic abuse: The impact on their identity, sense of self and resilience. A grounded theory approach. *Journal of International Women's Studies, 11*(2), Article 5.
- Dell'Osso, L., Lorenzi, P., Nardi, B., Carmassi, C., & Carpita, B. (2022). Post traumatic growth (PTG) in the frame of traumatic experiences. *PubMed, 19*(6), 390-393. <https://doi.org/10.36131/cnfloritieditore20220606>
- Egbert, J., & Sanden, S. (2019). Foundations of education research: Understanding theoretical components (2nd ed.). *Routledge*. <https://doi.org/10.4324/9780429452963>
- Ekström, V. (2015). Violence against women—social services support during legal proceedings. *European Journal of Social Work, 18*(5), 661-674. <https://doi.org/10.1080/13691457.2014.951600>
- Estrellado, A. F., & Loh, J. (2013). Factors associated with battered Filipino women's decision to stay in or leave an abusive relationship. *Journal of Interpersonal Violence, 29*(4), 575-592. <https://doi.org/10.1177/0886260513505709>

- Estrellado, A. F., & Loh, J. (M. I.). (2014). Factors associated with battered Filipino women's decision to stay in or leave an abusive relationship. *Journal of Interpersonal Violence, 29*(4), 575-592. <https://doi.org/10.1177/0886260513505709>
- Estrellado, A. F., & Loh, J. (2016). To stay in or leave an abusive relationship: Losses and gains experienced by battered Filipino women. *Journal of Interpersonal Violence, 34*(9), 1843-1863. <https://doi.org/10.1177/0886260516657912>
- European Institute for Gender Equality. (2022). *What is gender-based violence?* [https://eige.europa.eu/gender-based-violence/what-is-gender-based-violence?language\\_content\\_entity=en](https://eige.europa.eu/gender-based-violence/what-is-gender-based-violence?language_content_entity=en)
- Faizah, N. (2023). The spiritualization of domestic violence in the digital era: Examining the cathartic role of religious institutions in empowering victims. *De Jure Jurnal Hukum Dan Syar'iah, 15*(2), 251-267. <https://doi.org/10.18860/j-fsh.v15i2.23297>
- Frank, P., Batty, G. D., Pentti, J., Jokela, M., Ervasti, J., Steptoe, A., Lewis, G., & Kivimäki, M. (2024). Impact of physical and sexual abuse on risk of hospitalizations for physical and mental illnesses: Insights from two large prospective cohort studies. *The Lancet Regional Health - Europe, 40*, Article 100883. <https://doi.org/10.1016/j.lanepe.2024.100883>
- Galdas, P. M., Cheater, F., & Marshall, P. (2005). Men and health help-seeking behaviour: Literature review. *Journal of Advanced Nursing, 49*(6), 616-623. <https://doi.org/10.1111/j.1365-2648.2004.03331.x>
- Garcia-Moreno, C., & Watts, C. (2011). Violence against women: An urgent public health priority. *Bulletin of the World Health Organization, 89*(1), Article 2.
- Gillum, T. L., Sullivan, C. M., & Bybee, D. I. (2006). The importance of spirituality in the lives of domestic violence survivors. *Violence Against Women, 12*(3), 240-250. <https://doi.org/10.1177/1077801206286224>
- Gregorio, V. L., & Arguelles, C. V. (2020). Editorial introduction: Duterte's Philippines in the world of gendered populism. *Review of Women's Studies: Special issue on gender and populism in the Philippines, 29*(2), ix-xvi.
- Gunnarsdóttir, H., Löve, J., Hensing, G., & Källström, Å. (2021). To live, not only survive—An ongoing endeavor: Resilience of adult Swedish women abused as children. *Frontiers in Public Health, 9*, Article 59992. <https://doi.org/10.3389/fpubh.2021.599921>
- Heron, R. L., Eisma, M., & Browne, K. (2022). Why do female domestic violence victims remain in or leave abusive relationships? A qualitative study. *Journal of Aggression Maltreatment & Trauma, 31*(5), 677-694. <https://doi.org/10.1080/10926771.2021.2019154>
- Hooks, B. (2000). *Feminism is for everybody: Passionate politics*. South End Press.
- Jain, M. (2023). Women empowerment: A multidimensional approach. *Journal of Social Responsibility, Tourism and Hospitality, 34*, 36-42. <https://doi.org/10.55529/jwes.34.36.42>
- Johnstone, C. (2014). Active hope: A practice for resilience in troubled times. *Journal of Holistic Healthcare, 11*(2), 4-6.
- Kaufman, C. C., Thurston, I. B., Howell, K. H., & Crossnine, C. B. (2020). Associations between spirituality and mental health in women exposed to adversity. *Psychology of Religion and Spirituality, 12*(4), 400-408. <https://doi.org/10.1037/rel0000254>
- Keeling, J., Smith, D., & Fisher, C. (2016). A qualitative study exploring midlife women's stages of change from domestic violence towards freedom. *BMC Women's Health, 16*(1), Article 13. <https://doi.org/10.1186/s12905-016-0291-9>

- Ko, Y., & Park, S. (2020). Building a new intimate relationship after experiencing intimate partner violence in victim-survivors of South Korea. *Journal of Interpersonal Violence, 35*(1-2), 3-24. <https://doi.org/10.1177/0886260518814265>
- Komaruddin, K. (2019). Gender bias in interpretations of domestic violence in rural areas: A case study in Ciamis District, Indonesia. *Pertanika Journal of Social Sciences & Humanities, 27*(1), 457-465.
- Labrague, A. A., Jr. (2022). Gender-based violence: A case study in Samar, Philippines. *International Journal of Social Science and Human Research, 5*(5), 1712-1716. <https://doi.org/10.47191/ijsshr/v5-i5-20>
- Landman, C., & Mudimeli, L. M. (2022). The spiritual experiences of women victims of gender-based violence: A case study of Thohoyandou. *HTS Teologiese Studies, 78*(3), Article a7528. <https://doi.org/10.4102/hts.v78i3.7528>
- Li, C. K. W. (2023). A qualitative study on how intimate partner violence against women changes, escalates, and persists from pre- to post-separation. *Family Process, 63*(3), 1446-1468. <https://doi.org/10.1111/famp.12923>
- Lombard, N., & Mcmillan, L. (2013). *Domestic violence against women*. Jessica Kingsley Publishers.
- Malhotra, A., Schulte, J., Patel, P., & Petesch, P. (2009). *Innovation for women's empowerment and gender equality*. [https://www.researchgate.net/publication/318019438\\_Innovation\\_for\\_Women's\\_Empowerment\\_and\\_Gender\\_Equality](https://www.researchgate.net/publication/318019438_Innovation_for_Women's_Empowerment_and_Gender_Equality)
- Marium, S. (2014). Women's level of education and its effect on domestic violence in rural Bangladesh. *IOSR Journal of Humanities and Social Science, 19*(5), 40-45. <https://doi.org/10.9790/0837-19534045>
- Masongsong, J. R. (2023). Status of VAWC crime victims: A basis for a comprehensive victimology program. *American Journal of Youth and Women Empowerment, 2*(1), 17-23. <https://doi.org/10.54536/ajywe.v2i1.1629>
- Mellouki, Y., Sellami, L., Zerairia, Y., Saker, L., Belkhadja, N., Zetili, H., Guehria, F., Kaious, F., Bensaaida, M., & Mira, A. H. (2023). The impact of domestic violence: A prospective forensic study in the northeastern region of Algeria (Annaba). *Egyptian Journal of Forensic Sciences, 13*, Article 1. <https://doi.org/10.1186/s41935-022-00321-2>
- Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research*. John Wiley and Sons, Inc.
- Miller, S. L., & Manzer, J. L. (2021). Safeguarding children's well-being: Voices from abused mothers navigating their relationships and the civil courts. *Journal of Interpersonal Violence, 36*(9-10), 4545-4569. <https://doi.org/10.1177/0886260518791599>
- Montes, R. G., Liria, I. C., Fernandez, R. J., Vázquez, R. R., De Bengoa Vallejo, R. B., & Iglesias, M. L. (2021). Personal tools and psychosocial resources of resilient gender-based violence women. *International Journal of Environmental Research and Public Health, 18*(16), Article 8306. <https://doi.org/10.3390/ijerph18168306>
- Moran, D., & Mooney, T. (2002). *The phenomenology reader* (1st ed.). Routledge.
- Murphy, C., & Anstiss, K. (2022). Survivor support: How a values-based service can enhance access to psychological capital. In C. Murphy & R. Lazzarino (Eds.), *Modern slavery and human trafficking: The victim journey* (pp. 200-217). Bristol University Press. <https://doi.org/10.51952/9781447363668.ch011>
- Notko, M., Husso, M., Piippo, S., Fagerlund, M., & Houtsonen, J. (2022). Intervening in domestic violence: Interprofessional collaboration among social and health care professionals and the police. *Journal of Interprofessional Care, 36*(1), 15-23. <https://doi.org/10.1080/13561820.2021.1876645>

- Okedare, O. O., & Fawole, O. I. (2024). Perceived social support and the experience of intimate partner violence among married and cohabiting young women in urban slums, Ibadan, Nigeria: A descriptive study. *BMJ Public Health*, 2(1), Article e000425. <https://doi.org/10.1136/bmjph-2023-000425>
- Oyewuwo-Gassikia, O. B. (2020). Black Muslim women's domestic violence help-seeking strategies: Types, motivations, and outcomes. *Journal of Aggression, Maltreatment & Trauma*, 29(7), 856-875. <https://doi.org/10.1080/10926771.2019.1653411>
- Padmapriya, P., & Alagesan, M. (2024). Silent sufferers: Long-term impact on physical and mental health of child sexual abuse survivors. *Salud Ciencia Y Tecnología - Serie De Conferencias*, 3, Article 901. <https://doi.org/10.56294/sctconf2024901>
- Pertek, S., Block, K., Goodson, L., Hassan, P., Hourani, J., & Phillimore, J. (2023). Gender-based violence, religion and forced displacement: Protective and risk factors. *Frontiers in Human Dynamics*, 5, Article 1058822. <https://doi.org/10.3389/fhumd.2023.1058822>
- Philippine Statistics Authority. (2018, March 26). *One in four women have ever experienced spousal violence*. <https://psa.gov.ph/statistics/national-demographic-health-survey/node/129908>
- Pooler, D. K., & Barros-Lane, L. (2022). A national study of adult women sexually abused by clergy: Insights for social workers. *Social Work*, 67(2), 123-133. <https://doi.org/10.1093/sw/swac001>
- Princy, D. (2023). An analysis of women empowerment with special reference to India. *International Journal for Multidisciplinary Research*, 5(2), Article 2000. <https://doi.org/10.36948/ijfmr.2023.v05i02.2000>
- Quing, K. A. (2021). I am a survivor: Experiences, impacts and coping mechanisms of Filipino victims of sexual violence. *Journal of Education Management and Development Studies*, 1(1), 50-65. <https://doi.org/10.52631/jemds.v1i1.18>
- Raposas, T. (2008, January 16). *Marriage and domestic violence: A fatal combination in the Philippines, where divorce is illegal*. The Women's International Perspective. <https://sites.middlebury.edu/wip/2008/01/16/marriage-domestic-violence-a-fatal-combination-in-the-philippines-yet-divorce-is-illegal/>
- Reshi, I. A., & Sudha, T. (2022). Women empowerment: A literature review. *International Journal of Economic, Business, Accounting, Agriculture Management and Sharia Administration*, 2(6), 1353-1359. <https://doi.org/10.54443/ijebas.v2i6.753>
- Sachdeva, S., & Sharma, P. (2024). Prevalence of domestic violence amongst women in Punjab: A cross-sectional study. *International Journal of Advanced Research*, 12(6), 583-590. <https://doi.org/10.21474/ijar01/18920>
- Sani, A. I., & Pereira, D. (2020). Mothers as victims of intimate partner violence: The decision to leave or stay and resilience-oriented intervention. *Social Sciences*, 9(10), Article 174. <https://doi.org/10.3390/socsci9100174>
- Santos, A., Matos, M., & Machado, A. (2017). Effectiveness of a group intervention program for female victims of intimate partner violence. *Small Group Research*, 48(1), 34-61. <https://doi.org/10.1177/1046496416675226>
- Seamon, D. (2000). A way of seeing people and place. In S. Wapner, J. Demick, T. Yamamoto, & H. Minami (Eds.), *Theoretical perspectives in environment-behavior research* (pp.157-178). Springer. [https://doi.org/10.1007/978-1-4615-4701-3\\_13](https://doi.org/10.1007/978-1-4615-4701-3_13)
- Sen, S. K., Karmakar, P., & Adhikari, S. (2023). Empowerment and women's empowerment – A theoretical basis. *International Journal for Multidisciplinary Research*, 5(3), Article 4111. <https://doi.org/10.36948/ijfmr.2023.v05i03.4111>

- Senter, K. E., & Caldwell, K. (2002). Spirituality and the maintenance of change: A phenomenological study of women who leave abusive relationships. *Contemporary Family Therapy: An International Journal*, 24(4), 543-564. <https://doi.org/10.1023/A:1021269028756>
- Shoib, S., Khan, S., Baiou, A., Chandradasa, M., Swed, S., Turan, S., & Armiya'u, A. Y. (2022). Exposure to violence and the presence of suicidal and self-harm behaviour predominantly in Asian females: Scoping review. *Middle East Current Psychiatry*, 29, Article 62. <https://doi.org/10.1186/s43045-022-00225-w>
- Skop, M., Darewych, O. H., Root, J., & Mason, J. (2022). Exploring intimate partner violence survivors' experiences with group art therapy. *International Journal of Art Therapy*, 27(4), 159-168. <https://doi.org/10.1080/17454832.2022.2124298>
- Slabbert, I. (2017). Coping resources of women experiencing intimate partner violence: An ecological perspective. *Southern African Journal of Social Work and Social Development*, 29(1), 1-15. <https://doi.org/10.25159/2415-5829/2197>
- Sorsa, M., Bryngeirsdottir, H. S., & Paavilainen, E. (2023). "Going forward like a grandmother in the snow": Personal survival strategies, motherhood, and nature as resources for mothers who have experienced intimate partner violence. *International Journal of Environmental Research and Public Health*, 20(7), Article 5389. <https://doi.org/10.3390/ijerph20075389>
- Sukeri, S., & Man, N. N. N. (2017). Escaping domestic violence: A qualitative study of women who left their abusive husbands. *Journal of Taibah University Medical Sciences*, 12(6), 477-482. <https://doi.org/10.1016/j.jtumed.2017.05.009>
- Superable, C. (2018). Lived experiences of battered women in Ozamiz City, Philippines. *The Qualitative Report*, 12(13), 3447-3460. <https://doi.org/10.46743/2160-3715/2017.3437>
- Taket, A., O'Doherty, L., Valpied, J., & Hegarty, K. (2014). What do Australian women experiencing intimate partner abuse want from family and friends? *Qualitative Health Research*, 24(7), 983-996. <https://doi.org/10.1177/1049732314540054>
- Tutty, L. M. (2024). "It was one of the most revealing experiences of my life:" Women's views on group counseling for survivors of intimate partner violence. *Violence Against Women*. Advanced online publication. <https://doi.org/10.1177/10778012241259712>
- Valdez, I. K. M., Arevalo, M. V. P. N., Robredo, J. P. G., Gacad, S. L. S., Villaceran, M. A. J., Libang, G. R., Dela Paz, E. P., Rubin, K. S. T. A., & Eala, M. A. B. (2022). Violence against women in the Philippines: Barriers to seeking support. *The Lancet regional health. Western Pacific*, 23, Article 100471. <https://doi.org/10.1016/j.lanwpc.2022.100471>
- Warner, K., Baro, A., & Eigenberg, H. (2004). Stories of resistance: Exploring women's responses to male violence. *Journal of Feminist Family Therapy* 16(4), 21-42. [https://doi.org/10.1300/J086v16n04\\_02](https://doi.org/10.1300/J086v16n04_02)
- World Health Organization. (2024, March 25). *Violence against women*. <https://feji.us/yda5vl>
- Zhou, D., Li, X., & Su, Y. (2021). The impacts of education on domestic violence: Evidence from China. *Applied Economics*, 53(58), 6702-6720. <https://doi.org/10.1080/00036846.2021.1937504>
- Zombil, H. (2017). *Hopeful thinking: Conceptualizing a future beyond domestic abuse* [Doctoral dissertation, Walden University]. Walden Dissertations and Doctoral Studies. <https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=5980&context=dissertations>



## **Neighbourhood Governance in Vietnam for Tackling the COVID-19 Pandemic: Focus on Megacities, Social Capital, Hierarchical Steering, and Collaborative Governance Theory**

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### **ABSTRACT**

The concept of governance has gained widespread attention in the wake of the COVID-19 pandemic. While community-centred governance has gained popularity, the current understanding of neighbourhood governance remains incomplete. Based on the collaborative governance theory, this study revisits a previous conceptual framework to analyse the dynamics of neighbourhood governance in Vietnam during the COVID-19 response. We surveyed 366 social workers in residential quarters, sub-quarters, and community COVID groups in two Vietnamese megacities (e.g., Hanoi capital, Ho Chi Minh City). The findings show the presence of collaboration drivers in the country's neighbourhood governance. Specifically, neighbourhood social capital and governmental hierarchical steering emerge as two dynamics of effective neighbourhood governance. This research contributes to the current understanding of collaborative governance theory and the dynamics of neighbourhood governance and addresses previous discussions on assessing its effectiveness. From a practical perspective, this research offers a valuable tool for evaluating the effectiveness of neighbourhood governance and scholarship on enhancing its collaborative capacity.

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## INTRODUCTION

### Contextual Background

The COVID-19 pandemic has presented unprecedented complexity and uncertainty, posing the challenge of managing societal functions while controlling the spread of the virus. Across the globe, response orientation differs due to countries' overall socioeconomic conditions, leading to different priorities and pathways in the COVID-19 pandemic response strategies. Nevertheless, the trend is towards using nonpharmaceutical intervention techniques coupled with capital to fund technological and scientific tools (Le et al., 2020; Yan et al., 2020). The national governments of China, India, the United States, and Vietnam have effectively employed such techniques and policies to steer citizens' behaviour in the fight against the pandemic (Green & Loualiche, 2021; Intawong et al., 2021; Li, 2020). These interventions include large-scale lockdowns, social distancing measures, and isolation protocols (Yan et al., 2020). According to Desson et al. (2020) and Wimmer (2020), these techniques demonstrated countries' understanding of the value of government and citizens' joint efforts and strategic collaboration.

### Research Purpose and Objectives

Liu et al. (2021) developed a model examining collaborative neighbourhood governance in China during the COVID-19 crisis. They found that social capital and hierarchical steering predicted the effectiveness of collaborative governance. On the one hand, Liu et al. (2021) recalled the role of social

capital as neighbourhoods' collective fuel for citizens to transcend beyond being passive practitioners to the pioneers of movements instead. On the other, they also noted the challenge of obtaining community compliance and credited public authorities with the hierarchical steering and organising required to leverage neighbourhoods' social capabilities. Thus, collaboration effectiveness was measured from the perspective of residential committees (i.e., frontline social workers) for their significance in building, mobilising and bridging governance networks' participants. Nevertheless, as their study adopted a subjective measurement of effectiveness, Liu et al. (2021) called for further studies on the concept.

Moreover, there is a lack of studies observing the phenomenon in Vietnam despite the success of the country's public administration during the pandemic. While the perspectives of healthcare professionals and workers have been widely explored (Ha et al., 2020; Le et al., 2020; Tran, Phan, et al., 2020), the views of those facilitating communication and coordination between the government and citizens have been largely overlooked. Besides, Taniguchi (2022) and Hartley et al. (2021) described Vietnam as a compelling example of the positive and effective transformations in government–society relations during the COVID-19 response. These notable accomplishments have sparked discussions about how citizens and public institutions participated in governance networks at the time (Mai & Cuong, 2022). Several studies have considered this from a top-

down approach, whereby instruction for public affairs flows from central government agencies to extended local authorities and down to ground levels (Ha et al., 2020; Therrien & Normandin, 2020). Concurrently, Hartley et al. (2021) and Taniguchi (2022) celebrated individuals' commitment and interpersonal bonds within their communities. Nevertheless, the reasons behind the country's governance network's success during the pandemic response have yet to be fully determined.

In this paper, we inherit Liu et al.'s (2021) conceptual framework to examine the governance practice of Vietnam's urban neighbourhoods (i.e., especially megacities) during the pandemic. We aim to (1) assess the effectiveness of neighbourhood governance as an adoption of collaborative processes and (2) examine the extent of collaborative governance at the neighbourhood level of Vietnam during a public crisis (i.e., the COVID-19 pandemic). This study addresses some specific recommendations of previous studies and contributes to the literature on public governance. First, by approaching the presence of residential quarters and community COVID group officers in the neighbourhood, we respond to Liu et al.'s (2021) call to assess the effectiveness of the collaborative mechanism. Second, by focusing on the context of Vietnamese megacities, we confirm the country's capacity to adopt collaborative public governance and suggest policymakers leverage the model in public administration processes.

## LITERATURE REVIEW

### **Vietnam's Experience of COVID-19 in Terms of Neighbourhood Governance**

The government and the National Steering Committee determined the principle of designating communes, wards, and towns as the basic units, with the people as the centre and subject of pandemic prevention and control work. Neighbourhoods, wards, and communes were tasked with mobilising resources to promptly support localities affected by the pandemic or at high risk of outbreaks, thereby enabling swift virus containment and stabilisation of the situation. Simultaneously, strategies were employed by leveraging the community's role and utilising neighbourhood volunteers to assist with pandemic prevention. These efforts included the provision of essential supplies and medical support, as well as participation in surveillance and inspection activities.

In addition, community COVID-19 groups were established with the voluntary participation of socio-political organisations, local mass organisations, and residents. These groups operated under the organisation and management of local authorities. Their responsibilities included supporting the inspection and enforcement of pandemic prevention and control measures, providing information, consultation, and guidance to ensure the public's proper adherence to preventive measures, and participating in community propaganda and education activities.

Consequently, the implementation of directive documents from the central government was conducted synchronously and consistently across the entire system, ensuring the successful fulfilment of missions and solutions for pandemic prevention and control.

### **Neighbourhood Collaborative Governance**

In a study on the distribution of collective resources, Ostrom (1990) defined public governance as the institutional arrangements encompassing administrative activities and the influence exerted by individuals or groups. Later, Bryson et al. (2006) noted that governance includes coordinating collective activities and establishing accountability mechanisms among responsible agencies. It also addresses how the authority of actors is distributed and the interdependent relationships among them (Ansell & Gash, 2008; Kapucu, 2012). In an era of institutional cooperation, Ran and Qi (2018) emphasised the importance of collaboration in public governance, where stakeholders work together towards shared goals. Collaborative governance has been employed to address various urban public problems, such as land use (Holvandus & Leetmaa, 2016), the development of abandoned areas (Tomo et al., 2018), watershed governance (Imperial, 2005), and COVID-19 responses (Mai & Cuong, 2022). This is because addressing societal problems has become increasingly complex and often exceeds the capacity of a single actor (Batory & Svensson, 2019; Therrien &

Normandin, 2020). Relying on the work of others to deal with the complexity of public problems, affected actors typically find themselves participating in collaborative activities.

At the same time, the governance of public issues in urban neighbourhoods is transforming. A neighbourhood is a social entity composed of residents living within a defined geographic area (Chaskin & Garg, 1997). Multiple actors, representing various stakeholders and interests, are now participating in the neighbourhood governance process, narrowing the gap between 'what bureaucratic organisations offer and their own view of what they need' (van Hulst et al., 2012). Additionally, central governments and states are granting greater autonomy to local authorities, individuals, and non-state actors (Cheng et al., 2020; Ekzayez et al., 2020; Kalla & Metaxas, 2023). Accordingly, such a community approach encourages neighbourhood residents to engage in social bonding and communication, facilitating shared collective values and relationships (Barghusen et al., 2022; Wimmer, 2020).

### **The Effectiveness of Collaborative Governance**

Previously, Marek et al. (2015) evaluated a collaboration's effectiveness by its capacity to fulfil predetermined objectives. Parés et al. (2017) posited that the effectiveness of collaboration can be measured against the differences it yields compared to situations where collaboration is absent. Marek et al. (2015) further developed a framework

to measure the added value generated by collaboration, leading to improvements or successes in problem-solving programmes.

Meanwhile, in the context of China's COVID-19 response, Liu et al. (2021) attempted to evaluate the collaborative value of governance based on stakeholders' partnering attitudes and processes. Prior studies have indicated that shared rules, understandings, and accountability among stakeholders can lead to efficient resource distribution and enhanced governance planning (Mosley & Park, 2022; Tomo et al., 2018). Scott and Thomas (2017) underscored the importance of normative beliefs shared among stakeholders, asserting that attitudes towards collaboration, accountability and committed action determine the effectiveness of governance models. Indeed, the subjective experiences of network participants, such as residential committees, further validate these findings (Tran, Nguyen, et al., 2020).

### **Frontline Stakeholder's Approaches in Assessing the Effectiveness of Collaborative Governance**

Ran and Qi (2018) proposed studying the contingent nature of collaborative processes based on participants' perceptions. Tran, Nguyen, et al. (2020) embraced this perspective by asserting that insights provided by local authorities and the community could improve collaborative governance's effectiveness. These frontline workers could mobilise and connect with other community-level actors to address pandemic-related issues (Maryati &

Azizah, 2022). Their local knowledge gives them firsthand experience of residents' participation and engagement. These workers provided a channel for community voices and concerns to be recognised and appreciated (Schuster et al., 2020; van Hulst et al., 2012). Meanwhile, top-down pressure exerted to fulfil their frontline responsibility can enhance their experience of the government's commitment and accountability (Syasyila et al., 2022). As liaisons to local authorities, frontline members observe government responses while communicating the community's concerns (Breek, 2022; Kalla & Metaxas, 2023; Li et al., 2019). They also comprehend how public authorities allocate resources and support their communities (Dutta & Fischer, 2021).

### **Determinants of Effective Collaborative Governance**

#### *Neighbourhood Social Capital*

Understanding a neighbourhood's social network, practices, and values is crucial for its governance. Emerged in the 1990s, social capital reflects social relations and structures within a community and forms the bedrock of social cohesion (Portes, 1998; Veenstra, 1999). Social capital refers to the relationships, trust, and norms of reciprocity among individuals and groups involved in the decision-making process (Adler & Kwon, 2002; Maloney et al., 2000). It appears in various aspects of the neighbourhood, wherein language, narratives, expectations, norms, and values are shared (Oh & Bush, 2016). Beckham

et al. (2023) and Schuhbert (2023) further linked social capital to assets that individuals can use to fulfil their social interests and achieve goals within a community.

Capital enhances productivity and goal achievement (Adler & Kwon, 2002). Shared values and resources enable an area's citizens to overcome individual differences and collaboratively work towards common objectives (Adler & Kwon, 2002; Beckham et al., 2023; Macke et al., 2009; Schuhbert, 2023). Participation systems, rooted in the belief that individuals adhere to a common 'rule of the game', improve governance effectiveness (Macke et al., 2009). With the increasing complexity of public affairs, traditional governance methods that rely on policies of ordering and sanctioning are no longer sufficient. Instead, a sense of belonging and identity, derived from robust social connections, motivates people to participate in collective activities (Clarke et al., 2015; Oh & Bush, 2016). Beckham et al. (2023) and Schuhbert (2023) additionally noted that the transaction cost of cooperative efforts decreases as participation systems are adopted and civic engagement increases.

### ***Governmental Hierarchical Steering***

Maloney et al. (2000) suggested that communities' social capital should be purposively nurtured and supported by laws and regulations. Traditionally, the central government establishes policies and procedures, while arm's-length local authorities address the unique needs of the city (Li et al., 2019; Nguyen & Phan, 2021). The term 'hierarchical steering' comprises

hierarchical structures and governance methods. Policymaking and implementation, traditionally following a top-down approach from central to local authorities and individuals, are key aspects of public administration (King et al., 2015). This form of governance is closely related to the 'state-centric' government dichotomy proposed by Bäckstrand (2006). Additionally, the concept of 'steering' rather than 'rowing' highlights the government's role in creating and sustaining an environment conducive to co-production among governance partners (Capano et al., 2015). While the rowing government focuses on the need to build capacity and become effective on its own, the steering government aims to fulfil collective demands by establishing successful criteria for collaborative governance, thus providing the best environment for stakeholders to develop social partnerships by igniting their potential for collaborative governance (Bäckstrand, 2006; Capano et al., 2015; Clarke et al., 2015). Li (2020) also found that strategic steering from public authorities resulted in their interventions to develop stakeholder partnerships.

### **Hypothesis Development and the Conceptual Framework**

#### ***Underpinning Theory of Collaborative Governance***

This study adopts the collaborative governance theory to examine Vietnam's neighbourhood governance practices during the COVID-19 response. Collaborative governance theory underscores the mechanism by which participants pool

their capacities and resources to realise common objectives (Ansell & Torfing, 2022). Various sectors, with their interests and representatives, participate in the planning and execution of public services (Mai & Cuong, 2022). Collaborative governance operates on the principles of partnership, trust, and power-sharing among stakeholders affected by the decisions (Tomo et al., 2018).

In Vietnam, collective threats and objectives have driven the formation and strengthening of collaborations among government authorities, community organisations, and individual citizens (Taniguchi, 2022). Notably, Tran, Nguyen, et al. (2020) observed an effective mechanism in Vietnam for tackling the COVID-19 pandemic through partnership arrangements between governance partners. Since each stakeholder possesses unique resources and expertise, it is crucial to establish a mechanism for their co-production, complemented by norms and rules that govern individual accountability within the network. Consequently, apart from specific outcomes of policymaking or campaign establishment, this study evaluates the effectiveness of collaboration at the neighbourhood level based on the extent of engagement and accountability among its participants. We revisit Liu et al.'s (2021) conceptual framework, which was used to investigate the horizontal and hierarchical factors determining the effectiveness of collaborative networks in China during the pandemic. This study examines the importance of social capital

within neighbourhood communities and the hierarchical steering performance of public authority levels in the context of Vietnam's COVID response. We asked frontline workers in several areas of the country about their observations on how these normative processes occur within their neighbourhoods.

### ***Social Capital of Trust, Engagement, and Participation***

Recognising and harnessing social capital can strengthen community resilience, resulting in more effective pandemic responses. Tran, Phan, et al. (2020) found the importance of social capital in nurturing friendship and companionship in Vietnam's battle against COVID-19. Supporting this view, Li (2020) argued that citizen's trust in their neighbours, mutual gains, and the basic protocols of social distancing are prerequisites for collaboration (Olivera-La Rosa et al., 2020). For frontline workers, their ability to mobilise and communicate is significantly amplified in an environment characterised by trust and shared values within the communities they serve (Schuster et al., 2020).

Additionally, collaboration occurs when citizens actively engage and participate in collective activities. Li (2020) states that trust is interrelated with engagement and participation. Engagement, in a social context, refers to activities with others, which helps understand them better (Hawkins & Wang, 2012; Souza & Neto, 2018). Musavengane and Simatele (2017) argued that individuals who engage in

governance practices also invest emotionally in its dynamic activities and objectives. Consequently, a high degree of engagement in a social context is often associated with positive outcomes, such as increased social cohesion, stronger relationships, and a sense of belonging (Barghusen et al., 2022; Souza & Neto, 2018). In particular, robust civic engagement has been found to significantly increase citizens' willingness and determination to accept the COVID-19 vaccine (Afolabi & Ilesanmi, 2021).

There is also a connection between citizen involvement and participation, two pillars of effective local governance (Ha et al., 2020). The latter involves mechanisms that promote the inclusiveness of stakeholders and facilitate problem-solving processes (Kapucu, 2012). Through meaningful discussions and deliberations, the issue of COVID-19 vaccine hesitancy among individuals can be effectively mitigated (Afolabi & Ilesanmi, 2021). Meanwhile, the participation of underrepresented groups in decision-making processes fosters trust and knowledge sharing, leading to greater citizen cooperation (Barghusen et al., 2022; Dutta & Fischer, 2021). These studies support social capital or the notion that trust and mutual understanding within a community can strengthen its resilience and contribute to more effective and inclusive pandemic responses. In light of the above, we propose the following hypotheses (Figure 1):

1. A neighbourhood's social capital of trust has a significantly positive impact on the perceived effectiveness of collaboration in COVID-19 responses.
2. A neighbourhood's social capital of engagement has a significantly positive impact on the perceived effectiveness of collaboration in COVID-19 responses.
3. A neighbourhood's social capital of participation has a significantly positive impact on the perceived effectiveness of collaboration in COVID-19 responses.

### **Governmental Hierarchical Steering of Priority, Incentives, Pressure, and Support**

It should be noted that the steering role of governmental institutions also influenced the success of collaborative governance in Vietnam's COVID-19 response. Public authorities acknowledge that providing resources for public services is contingent upon their respective importance and urgency (Ha et al., 2020; Kalla & Metaxas, 2023). Accordingly, certain services require a larger allocation of resources, and the government's prioritisation guarantees that these are distributed both efficiently and effectively to meet community needs (Tran, Nguyen, et al., 2020). This strategic prioritisation, coupled with various incentives and support for stakeholders, can strengthen the governance network (Wimmer, 2020). In Vietnam, Taniguchi (2022) and Mai and Cuong (2022) observed that citizens are more likely to adopt protective behaviours when they perceive governmental accountability through such mechanisms as district steering committees and frontline workers, such as physical distancing, wearing masks, and maintaining hand hygiene. Additional motivational



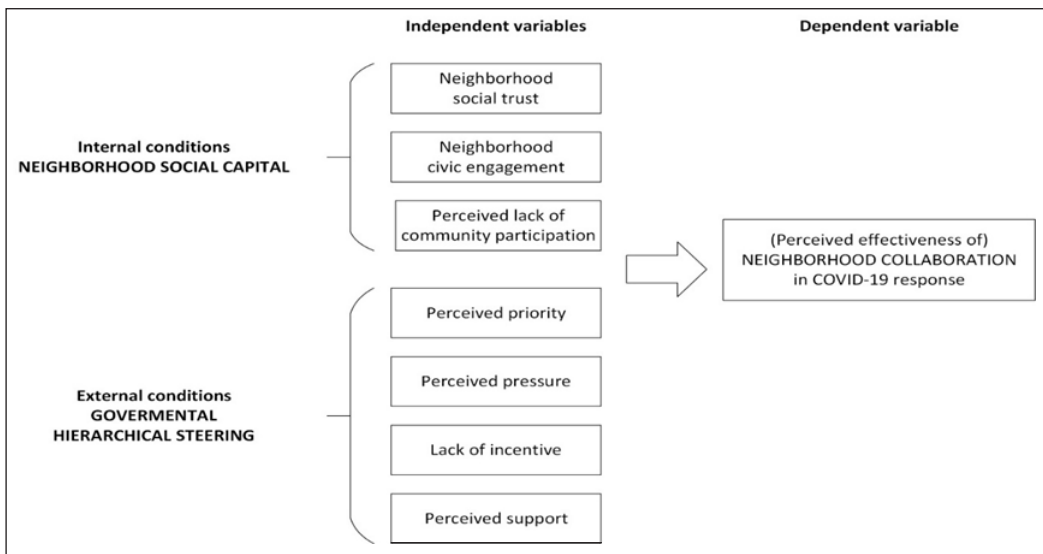


Figure 1. The conceptual framework adopted by Liu et al. (2021)

factors, including power and networking, have been explored in relation to the effectiveness of cooperative management (Kalla & Metaxas, 2023; Tarkom, 2022). Likewise, Yan et al. (2020) and Ha et al. (2020) argued that decision-makers' accountability in response to residents' need for mental and financial support serves as a practical motivation for them to develop their capacities and self-discipline, thereby enhancing the effectiveness of pandemic control across countries.

During the COVID-19 pandemic, local authorities and frontline organisations additionally faced immense pressure to achieve target goals while working with limited time and resources. In Vietnam, within a remarkably short timeframe following the first official warning, the government swiftly implemented a hierarchical structure of steering committees, starting from the central headquarters (Tran, Nguyen, et

al., 2020). Subsequently, provincial and district steering committees were promptly established, each accompanied by their respective rapid response teams. This strategy has been recognised as another contributing factor to successful pandemic control in several Western countries (Desson et al., 2020), China (Cheng et al., 2020), and Vietnam (Le et al., 2020; Tran, Nguyen, et al., 2020).

Therefore, the following hypotheses are proposed (Figure 1):

1. Governmental prioritisation has a significantly positive impact on the perceived effectiveness of collaboration in COVID-19 responses.
2. Governmental incentives have a significantly positive impact on the perceived effectiveness of collaboration in COVID-19 responses.
3. Governmental hierarchical support has a significantly positive impact on the

perceived effectiveness of collaboration in COVID-19 response.

4. Governmental hierarchical pressure has a significantly positive impact on the perceived effectiveness of collaboration in COVID-19 responses.

## METHODOLOGY

### Data Collection

Hanoi capital and Ho Chi Minh City are the two major transportation hubs, trading gateways, and international exchange centres of the country, with significant immigrant populations. Therefore, the pandemic situation in these cities was complicated. Local authorities were required to implement flexible yet stringent policies and measures for pandemic prevention and control, as well as for socioeconomic development. Hence, neighbourhood collaborative governance (under normal conditions and during the COVID-19 pandemic) in these megacities exhibits unique social features when compared to other provinces in Vietnam. This study focuses on two megacities (i.e., Hanoi capital and Ho Chi Minh City) to quantitatively observe neighbourhood collaborative governance administered through neighbourhood social capital and governmental hierarchical steering.

The mass survey was conducted in 2022, targeting social/frontline workers in residential quarters and sub-quarters and community COVID groups in Ho Chi Minh City and Hanoi (i.e., the extended arm of local authorities in supporting efforts to combat the pandemic). Purposive, quota,

and snowball sampling methods were used to recruit the study's respondents (i.e., during cell or regular meetings organised by local authorities to exchange information and distribute survey questionnaires). In Ho Chi Minh City, we approached residential quarters and sub-quarters throughout the 20 wards/sub-districts of Binh Thanh district. We also approached residential quarters and community COVID groups in 13 districts across Hanoi.

A total of 366 valid cases were collected through the mass survey for further analysis. In Table 1, which presents the demographics of the respondents, the target population was approached based on certain general personal characteristics. The majority of respondents (almost 75%) were senior citizens aged between 50–69. More than 40% of respondents held undergraduate degrees, while over 45% had completed high school or college/vocational school education. The gender distribution among respondents was relatively equal (i.e., 48% male, 52% female). This study targeted social workers residing in two megacities (i.e., nearly 70% in Ho Chi Minh City and approximately 30% in Hanoi). In terms of community groups, this study primarily engaged social workers working within residential quarters and sub-quarters (accounting for 83.88%), while a smaller proportion (16.12%) worked in community COVID groups.

The measurement scale was adopted from Liu et al. (2021), with detailed items in the Vietnamese context shown in the Appendix.

Table 1  
*Respondents' demographics*

Categories	Outcomes	Respondents	Percentage (%)
Age	From 20 to 29	2	0.55
	From 30 to 39	20	5.46
	From 40 to 49	33	9.02
	From 50 to 59	89	24.32
	From 60 to 69	187	51.09
	From 70 to 79	34	9.29
	From 80 to 89	1	0.27
Gender	Male	175	47.81
	Female	191	52.19
Community Group	Residential sub-quarter	198	54.10
	Community COVID group	59	16.12
	Residential quarter	109	29.78
Location	Ho Chi Minh	253	69.13
	Hanoi	113	30.87
Education	Postgraduate	23	6.28
	Undergraduate	155	42.35
	College-Vocational school	83	22.68
	High school	91	24.86
	Others	14	3.83
Total		366	100.00

### Assessment Methods

Ordinary least-squares (OLS) regression and logistic regression were conducted in the STATA program (version 15).

OLS regression is used to estimate linear relationships between continuous/categorical variables (as independent variables) and a continuous dependent variable (Mehmetoglu & Jakobsen, 2017). The data were standardised, and all regression assumptions were checked before we ran the OLS regression. Data standardisation was conducted with z-transformation by applying two scales (e.g., 5- and 10-point scales) for measuring the continuous variables (see Table 2).

The descriptive analysis of all variables in this study is shown in Table 3. In essence, regression assumptions consist of two parts. One deals with the specification of the least-squares model, while the other relates to assumptions about the residuals. In other words, there are three original Gauss-Markov assumptions, including the error term having a conditional mean of zero, the error term having a constant variance, and errors being uncorrelated. There are three additional assumptions: a correctly specified model, absence of multicollinearity, and normally distributed residuals (Mehmetoglu & Jakobsen, 2017).

Table 2  
Data transformation

Variable code	Variable name	Variable type	Data transformation
NC_1	Perceived effectiveness of neighbourhood collaboration	Ordinal (0–10)	z-transform
NC_2	Perceived effectiveness of neighbourhood collaboration	Binary (Yes/No)	Grouping (0-5 indicate No, 6-10 indicate Yes)
SC1	Neighbourhood social trust	Ordinal (1–5)	z-transform
SC2	Neighbourhood civic engagement	Ordinal (1–5)	z-transform
SC3	Perceived lack of community participation	Binary (Yes/No)	None
HS1	Perceived priority	Ordinal (0–10)	z-transform
HS2	Perceived pressure	Binary (Yes/No)	None
HS3	Perceived incentive	Binary (Yes/No)	None
HS4	Perceived support	Ordinal (1–5)	z-transform

Table 3  
Descriptive analysis of all variables

Variable code	Variable name	Variable type	N	Mean	SD	Min	Max	Yes	No	Yes (%)	No (%)
NC_1	Perceived effectiveness of neighbourhood collaboration	Ordinal (0–10)	366	8.77	1.44	1	10				
NC_2	Perceived effectiveness of neighbourhood collaboration	Binary (Yes/No)	366					351	15	95.90	4.10
SC1	Neighbourhood social trust	Ordinal (1–5)	366	4.74	0.49	3	5				
SC2	Neighbourhood civic engagement	Ordinal (1–5)	366	4.60	0.58	3	5				
SC3	Perceived lack of community participation	Binary (Yes/No)	366					100	266	27.32	72.68
HS1	Perceived priority	Ordinal (0–10)	366	8.86	1.37	2	10				
HS2	Perceived pressure	Binary (Yes/No)	366					216	150	59.02	40.98
HS3	Perceived incentive	Binary (Yes/No)	366					336	30	91.80	8.20
HS4	Perceived support	Ordinal (1-5)	366	4.51	0.72	1	5				

Logistic regression is used to estimate linear relationships between continuous/categorical variables (as independent variables) and a categorical dependent variable by using maximum likelihood estimation. Data transformation and checking all required assumptions were conducted before running the logistic regression. There are five assumptions in logistic regression, including 1/ The model must be correctly specified; 2/ No important variables must be left out of the model, and no unnecessary variables should be included; the model and the causal relationships need to be grounded in strong theoretical arguments; 3/ Each observation needs to be independent of the other observations; 4/ Absence of multicollinearity; and 5/ No influential cases (Mehmetoglu & Jakobsen, 2017).

## RESULTS

We used one easy command of the recheck package (i.e., `ssc install recheck`) to examine all the OLS regression assumptions (e.g., homoscedasticity, multicollinearity, normally distributed residuals, correctly specified model, appropriate functional form, and influential cases). Influential cases were identified through Cook's distance, residual outliers, leverage, and DFBETA (Mehmetoglu & Jakobsen, 2017). There were 22 cases deleted to achieve five over six OLS assumptions (i.e., excepting non-normally distributed residuals) in four OLS models (e.g., Models 1–4). Robust regression with `rreg` command was applied to these four OLS models dealing with non-

normal distributed residuals (Mehmetoglu & Jakobsen, 2017; Table 4).

The logistic model was diagnosed with model specification (i.e., the link test), incorrectly specified model (i.e., `estat gof` command), multicollinearity (i.e., `estat vif` command), and influential cases (i.e., `dbeta`) (Mehmetoglu & Jakobsen, 2017). Six cases were deleted to achieve valid assumptions in logistic regression (i.e., Model 5; Table 4).

Model 1 reveals OLS causal relationships between two sets of independent variables (e.g., neighbourhood social capital, hierarchical steering) and neighbourhood governance effectiveness. Model 2 reveals OLS causal relationships between control variables (e.g., age, gender, community group, location) and neighbourhood governance effectiveness. Model 3 reveals the OLS causal relationship between two sets of independent variables (e.g., neighbourhood social capital, control variables) and neighbourhood governance effectiveness. Model 4 reveals the OLS causal relationship between two sets of independent variables (e.g., hierarchical steering, control variables) and neighbourhood governance effectiveness. Model 5 reveals logistic regression between three sets of independent variables (neighbourhood social capital, hierarchical steering, control variables) and neighbourhood governance effectiveness, in which some categorical independent variables were omitted due to collinearity (e.g., perceived lack of community participation, perceived pressure, incentive, age, community group; see Table 4).

Table 4  
*OLS regression and logistic regression on the effectiveness of neighbourhood governance*

	Model 1		Model 2		Model 3		Model 4		Model 5		
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE	Odds ratio	SE	
SC1	Neighbourhood social trust	-0.025	0.039			0.066 <sup>a</sup>	0.040			2.01349	1.961
SC2	Neighbourhood civic engagement	0.177***	0.04			0.235***	0.045			0.3054	0.36
SC3	Perceived lack of community participation (baseline = No)										
	Yes	-0.077	0.075			-0.144 <sup>a</sup>	0.078			0.05851**	0.064
HS1	Perceived priority	0.42***	0.047					0.444***	0.043	4.00363***	1.598
HS2	Perceived pressure (baseline = No)										
	Yes	-0.17*	0.067					-0.188***	0.066		
HS3	Incentive (baseline = No)										
	Yes	-0.142	0.127					-0.173	0.126	1.2838	1.759
HS4	Perceived support	0.021	0.041					0.048	0.040	1.43573	0.948
D1	Age (baseline = From 20 to 39)										
	From 40 to 59			0.192	0.161	0.062	0.154	0.18	0.142		
	From 60 onwards			0.385*	0.163	0.187	0.157	0.389***	0.143		
D2	Gender (baseline = Male)										
	Female			0.061	0.074	0.01	0.071	0.089	0.064	1.10509	1.195

Table 4 (continue)

	Model 1		Model 2		Model 3		Model 4		Model 5	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE	Odds ratio	SE
D3										
Community Group (baseline = Residential sub-quarter)										
Residential quarter			-0.059	0.091	-0.001	0.088	-0.007	0.081		
Community COVID group			0.26*	0.131	0.168	0.125	0.162	0.117		
D4										
Location (baseline = Ho Chi Minh)										
Hanoi										
Constant	0.396***	0.122	-0.683***	0.111	-0.388***	0.113	-0.178 <sup>a</sup>	0.106	1.66559	2.372
N	344		344		344		344		360	
R-squared	0.409		0.164		0.272		0.416		0.5958	
Pseudo R-squared										
Log-likelihood										-18,471363

Note. \*\*\* $p$ -value  $\leq 0.001$ ; \*\* $p$ -value  $\leq 0.01$ ; \* $p$ -value  $\leq 0.05$ ; <sup>a</sup> $p$ -value  $\leq 0.1$ . Model 1–4 report results from OLS regression, and Model 5 report results from logistic regression. SE means standard error

From the OLS regression, social capital and hierarchical steering were significant drivers of neighbourhood governance effectiveness. In terms of social capital, neighbourhood civic engagement had significantly positive impacts on neighbourhood governance effectiveness (i.e.,  $\beta = 0.177$  and  $p\text{-value} \leq 0.001$  in Model 1, and  $\beta = 0.235$  and  $p\text{-value} \leq 0.001$  in Model 3, respectively); however, neighbourhood social trust and perceived lack of community participation had significantly positive and negative impacts on neighbourhood governance effectiveness when control variables were included in Model 3 (i.e.,  $\beta = 0.066$  and  $p\text{-value} \leq 0.1$ , and  $\beta = -0.144$  and  $p\text{-value} \leq 0.1$ , respectively). In terms of hierarchical steering, perceived priority had significantly positive impacts on neighbourhood governance effectiveness (i.e.,  $\beta = 0.42$  and  $p\text{-value} \leq 0.001$  in Model 1, and  $\beta = 0.444$  and  $p\text{-value} \leq 0.001$  in Model 4); inversely, perceived pressure had significantly negative impacts on neighbourhood governance effectiveness (i.e.,  $\beta = -0.17$  and  $p\text{-value} \leq 0.05$  in Model 1, and  $\beta = -0.188$  and  $p\text{-value} \leq 0.001$  in Model 4; see Table 4). Simply put, a social worker tended to perceive less effective neighbourhood governance if they perceived a lack of community participation and suffered pressure in COVID-19 responses; inversely, social workers tended to perceive highly effective neighbourhood governance if they perceived neighbourhood social trust and emphasised priority in COVID-19 responses.

From the logistic regression in Model 5, hierarchical steering had significant impacts on neighbourhood governance effectiveness.

Specifically, perceived lack of community participation had a significantly negative impact on neighbourhood governance effectiveness (i.e., odds ratio = 0.05851 and  $p\text{-value} \leq 0.01$ ); inversely, perceived priority had a significant positive impact on neighbourhood governance effectiveness (i.e., odds ratio = 4.00363 and  $p\text{-value} \leq 0.01$ ; see Table 4). In other words, a social worker perceiving a lack of community participation tended to reduce 94.149% for perceived effectiveness of neighbourhood governance, while one with higher perceived priority in COVID-19 responses tended to perceive neighbourhood governance as three times more (i.e., 300%) more effective.

Among control variables, an older group of social workers (i.e., from 60 onwards) reported a higher performance in neighbourhood governance during the pandemic ( $\beta = 0.385$  and  $p\text{-value} \leq 0.05$  in Model 2, and  $\beta = 0.389$  and  $p\text{-value} \leq 0.001$  in Model 4). However, social workers in Hanoi reported a lower performance in neighbourhood governance's pandemic response ( $\beta = -0.683$  and  $p\text{-value} \leq 0.001$  in Model 2,  $\beta = -0.388$  and  $p\text{-value} \leq 0.001$  in Model 3, and  $\beta = -0.178$  and  $p\text{-value} \leq 0.1$  in Model 4; see Table 4).

## DISCUSSION

### Comparative Analysis

Generally speaking, neighbourhood social capital and hierarchical steering played important roles in enhancing neighbourhood governance in COVID-19 responses. Hence, this finding, along with those of various previous studies, supports the theory of collaborative governance (Ansell & Torfing,



2022; Cheng et al., 2020; Emerson et al., 2012; Kapucu, 2012; Li et al., 2019; Taniguchi, 2022; Tran, Nguyen, et al., 2020). On the other hand, two groups of community workers tended to perceive the high effectiveness of neighbourhood governance in COVID-19 responses (e.g., seniors over the age of 60 and community COVID groups). In contrast, community workers in Hanoi tended to perceive neighbourhood governance as being less effective in COVID responses.

Neighbourhood civic engagement, participation and trust were recognised as positive drivers of neighbourhood governance. The findings indicate that community workers tended to perceive effective neighbourhood governance when they perceived a sense of neighbourliness among residents in managing the pandemic. This is consistent with previous empirical studies focusing on the role of local and private individuals in governance (Afolabi & Ilesanmi, 2021; Souza & Neto, 2018). During times of crisis, the imposition of strict policies and the utilisation of information systems for real-time data flow requires significant tolerance and understanding from citizens. Despite the diversity of personal perspectives, the establishment of local governance decisions necessitates a collective value system to facilitate timely and unanimous decision-making. It has been observed that the horizontal dynamics at the grassroots level and the hierarchical dynamics at the top converge towards a common goal of pandemic response. This convergence is underpinned by the collaborative governance theory, which

has been discussed in neighbouring China (Cheng et al., 2020) and Thailand (Intawong et al., 2021) but remains under-studied in Vietnam.

The collaborative relationships between citizens and the government benefit the entire community and lay the groundwork for coordination beyond pandemic response, serving as a normative model for city-level governance (Kalla & Metaxas, 2023). In line with the observations of Hartley et al. (2021), this study revealed that frontline workers commend the steering responsibilities of public authority levels. Their direction and policies reflect the collective benefits and align with the country's socialist orientation. However, it should be noted that the policies and practices implemented to control the spread of COVID-19 in Vietnam may not necessarily produce the same results in different political and social contexts. As Hartley et al. (2021) pointed out, there may be instances where individuals are less willing to sacrifice their privacy, regardless of the potential benefits to the overall response strategy.

Concurrently, residential quarters and community COVID group officers recognise the effectiveness of their collaboration network as they perceive the prioritisation, incentives and support from the government during the COVID-19 response (Syasyila et al., 2022; Wimmer, 2020). In line with Kalla and Metaxas's (2023) emphasis on the role of community volunteers in urban resilient governance, this study highlights the evolution of frontline workers' duties to enhance social capital and foster collective acceptance of these policies within the

community. The local government required narrative, spiritual, and intellectual steering to cultivate public opinion and community commitment. This was evident in the practices and performances of frontline workers, which mirrored the coordination found in prior studies (Cheng et al., 2020; Kalla & Metaxas, 2023). In contrast to earlier findings (e.g., Desson et al., 2020; Tran, Nguyen, et al., 2020), perceived pressure impeded neighbourhood governance's management of the health crisis. In other words, community workers tend to perceive neighbourhood collaboration as less effective in responding to COVID-19 if they perceive pressure from the local government. This could potentially have been due to the double-edged sword effect of pressure on their mental and physical well-being. Green and Loualiche (2021) found a correlation between the pressure exerted by the government and the occurrence of layoffs among local frontline workers. Top-down pressure could cause anxiety that compromises their performance and satisfaction with their current tasks (Syasyila et al., 2022; Xu et al., 2021). During the pandemic response, frontline workers diligently worked in their intermediary roles between citizens and local government, thus placing them in a position where they had to respond to the expectations of both parties (van Hulst et al., 2012). Therefore, in contrast to the three positive conducts found from government steering, this experience of working with constraints could have introduced biases in their network evaluation.

## **Theoretical Implications**

This study contributes to existing research in several ways. First, it extends previous work on collaborative governance by examining its application in neighbourhoods of Vietnamese megacities during the COVID-19 pandemic. While prior Vietnamese studies have explored the roles of public authorities and citizen involvement in successful pandemic responses (Ha et al., 2020; Hartley et al., 2021; Le et al., 2020; Tran, Phan, et al., 2020; Tran, Nguyen, et al. 2020), they have often presented a fragmented view of the underlying mechanisms (Mai & Cuong, 2022). This study addresses this gap by focusing on the multi-sectoral collaboration mechanism, identifying key assets, and highlighting its contribution to overall neighbourhood governance. The findings affirm the presence and efficacy of collaborative governance in Vietnam's megacities, which may inform future administrative theory across Vietnam and other countries.

Second, this study adopts a more nuanced approach to conceptualising and evaluating the effectiveness of collaborative governance. Traditional measures often focus on the implementation of public policies or services (Ha et al., 2020; Nguyen & Phan, 2021). Building upon the work of Liu et al. (2021) and complementing the study of Hartley et al. (2021), we propose a subjective perspective that considers effectiveness as perceived by the collaborators themselves. For them, effective neighbourhood governance is characterised by collaborative attitudes and behaviours among authorities and

citizens, fostered by social capital and the government's hierarchical steering role. This research offers novel insights regarding the assessment of governance effectiveness, particularly in contexts where governance outcomes are long-term or difficult to quantify.

Third, this study provides a novel perspective on the examination of governance during the COVID-19 pandemic. While the perspectives of healthcare professionals and workers have been widely explored (Cheng et al., 2020; Maryati & Azizah, 2022; Tran, Phan, et al., 2020), the views of those facilitating communication and coordination between government and citizens have been largely overlooked. This study is one of the first in Vietnam to comprehensively investigate the perspective of residential quarters and community COVID group officers on COVID-19 governance. Their frontline roles, viewpoints, and positions offer valuable insights into the effectiveness of their collaborative networks in aligning the efforts of all parties and contributing to governance practices.

### **Practical Implications**

The findings of this study have a number of practical implications. The current conceptual model can be employed as a reliable measurement tool for evaluating the effectiveness of collaboration in future neighbourhood governance. Specifically, within the context of two megacities in Vietnam, the provision of neighbourhood social capital and governmental hierarchical steering can enhance the perceived effectiveness of neighbourhood

governance. These findings suggest several courses of action for all stakeholders to enhance their collaboration. Residents, in particular, have the capacity to actively shape, nurture, and leverage the social capital within their neighbourhoods. At the same time, administrators need to continue to demonstrate their commitment and show responsible leadership in steering neighbourhood governance at different levels. This involves actively listening to and valuing the insights of local community workers, whose evaluations of network effectiveness can provide valuable perspectives. While residential quarters and community COVID group officers may be particularly qualified voices in this context, senior neighbours and members of the intelligentsia can also offer insightful feedback on the effectiveness of collaborative networks in which they are actively engaged.

To enhance the efficiency of neighbourhood governance, clearly defining the roles of cooperation among the actors involved is of utmost importance. First, authorities at every level can strengthen trust and cohesion with the people, using the principle of “putting people at the centre.”<sup>1</sup> as the guiding philosophy for all plans and

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<sup>1</sup> “Putting people at the centre” means putting the people as the foundation for all achievements of a nation. The 6<sup>th</sup> National Congress of the Vietnamese Communist Party (1986) concluded and proposed the guiding principle: “trust in the people, rely on the people, always value and promote the people's spirit of ownership, respect and listen to their opinions” as the strategic ideology in Vietnam's revolutionary path. It serves both as the goal and the driving force, as well as the key to the success of all guidelines and policies of the Party and State.

actions undertaken locally. Collaborative mechanisms and policies should be designed to be appropriate and effective, simplifying procedures and refining legal documents to ensure consistency and coherence. This will establish a clear legal framework, enabling citizens to contribute their opinions and participate directly in neighbourhood governance activities. Special attention can be given to the organisation, inspection, and supervision processes. Only with thorough inspection and supervision can proper assessments be made, ensuring effectiveness and, most importantly, the timely prevention of violations as soon as they arise.

Additionally, it is essential to regularly organise training courses and workshops on governance and cooperation skills to empower the people to implement and monitor local activities more effectively. This will, in turn, enhance public initiative and responsibility in community governance. Furthermore, propaganda activities should be strengthened to ensure that citizens understand correctly, act appropriately, and engage actively in governance. This approach will foster consensus between the authorities and the people, addressing the legitimate interests and aspirations of the people. Authorities should leverage the method of "leading by example,"<sup>2</sup> promptly identifying, recognising, and

rewarding exemplary individuals while publicising cases of those excelling in various initiatives. As a result, it will encourage the development of creative ideas in governance and acknowledge innovative ideas that contribute to neighbourhood governance.

After the COVID-19 pandemic, the focus of neighbourhood governance, in particular, and governance in Vietnam, in general, has shifted towards processes aimed at addressing the aftermath of natural disasters and epidemics and the stabilisation and improvement of people's livelihoods. Local authorities are also urged to ensure that support is targeted accurately, with the right purposes, and that it is effective, transparent, and generates high social consensus. Community consultation policies should be developed based on regular neighbourhood meetings to understand residents' concerns and opinions on local issues, thereby formulating appropriate policies. The principle of collaborative governance involves power sharing and partnership. To foster transparency, we would suggest the development of a horizontal monitoring channel for recording and reporting on the governance performances of public authorities. With their engagement in public affairs, community workers and residents of neighbourhoods should be able to monitor the actions, priority policies, and committed support of their public administrators.

## CONCLUSION

In conclusion, this study contributes to the current understanding of neighbourhood

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<sup>2</sup> "Leading by example" is not only a leadership method of the party but also the most persuasive and effective educational approach. Leading by example involves demonstrating exemplary behaviour in every task, whether large or small, from learning, training, and self-cultivation to actions in practice and relationships with the people.

governance by providing insights from the context of two megacities in Vietnam during the COVID-19 pandemic response. Drawing from the theory of collaborative governance, we examined the experiences of frontline neighbourhood workers and their perception of the effectiveness of neighbourhood governance activities. This subjective evaluation reaffirms the significance of social capital and effective hierarchical steering as important factors for successful collaborative processes. The findings also yield theoretical and practical contributions to the current understanding of collaborative governance and its implications for future effective governance practices.

This study has certain limitations that should be recognised. Firstly, the generalisation of the current findings is limited due to focusing on two specific megacities in Vietnam: Ho Chi Minh City and Hanoi capital. These cities represent the largest and most complex administrative units. While there are overarching administrative systems in place, the governance practices at the ground level are heavily dependent on the unique conditions of each area. The actual relationships, workflows, and social connections vary significantly at local levels, leading to diverse methods and governance processes. Therefore, we call for further studies on different neighbourhood contexts so as to enhance the generalisability of our findings.

Additionally, this study assesses the effectiveness of neighbourhood governance from the subjective perception of collaborative actors, specifically frontline community workers as residential

committees. However, as neighbourhood governance realities differ, the roles, positions, and work of these actors also vary across different neighbourhoods. The selection of appropriate actors for the research is crucial to ensure credibility and unbiased evaluation. We call for further studies to consider the viewpoints and perceptions of other actors involved in the neighbourhood governance network. Furthermore, while this study focuses on neighbourhood governance practices during the COVID-19 pandemic response, examining our conceptual model in the context of normal daily governance activities is important. In turn, the daily collaboration attitudes and protocols of neighbourhood administration can serve as due preparation for timely responses during future emergencies.

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## REFERENCES

- Adler, P. S., & Kwon, S. W. (2002). Social capital: Prospects for a new concept. *Academy of Management Review*, 27(1), 17-40. <https://doi.org/10.5465/AMR.2002.5922314>
- Afolabi, A. A., & Ilesanmi, O. S. (2021). Addressing COVID-19 vaccine hesitancy: Lessons from the role of community participation in previous vaccination programs. *Health Promotion Perspectives*, 11(4), 434-437. <https://doi.org/10.34172/hpp.2021.54>
- Ansell, C., & Gash, A. (2008). Collaborative governance in theory and practice. *Journal of*

- Public Administration Research and Theory*, 18(4), 543-571. <https://doi.org/10.1093/jopart/mum032>
- Ansell, C., & Torfing, J. (Eds.). (2022). *Handbook on theories of governance*. Edward Elgar Publishing. <https://doi.org/10.4337/9781800371972>
- Bäckstrand, K. (2006). Multi-stakeholder partnerships for sustainable development: Rethinking and effectiveness. *European Environment*, 16, 290-306. <https://doi.org/10.1002/eet.425>
- Barghusen, R., Sattler, C., Berner, R., & Matzdorf, B. (2022). More than spatial coordination – How Dutch agricultural collectives foster social capital for effective governance of agri-environmental measures. *Journal of Rural Studies*, 96, 246-258. <https://doi.org/10.1016/j.jrurstud.2022.10.023>
- Batory, A., & Svensson, S. (2019). The fuzzy concept of collaborative governance: A systematic review of the state of the art. *Central European Journal of Public Policy*, 13(2), 28-39. <https://doi.org/10.2478/cejpp-2019-0008>
- Beckham, T. L., Cutts, B. B., Rivers, L., Dello, K., Bray, L. A., & Vilá, O. (2023). BRIDGE Builders – Leadership and social capital in disaster recovery governance. *International Journal of Disaster Risk Reduction*, 96, Article 103942. <https://doi.org/10.1016/j.ijdr.2023.103942>
- Breck, P. (2022). Neighborhood governance during COVID-19: What is lost with reduced face-to-face communication? *Journal of Urban Affairs*, 46(5), 925-943. <https://doi.org/10.1080/07352166.2022.2105225>
- Bryson, J. M., Crosby, B. C., & Stone, M. M. (2006). The design and implementation of cross-sector collaborations: Propositions from the literature. *Public Administration Review*, 66(s1), 44-55. <https://doi.org/10.1111/j.1540-6210.2006.00665.x>
- Capano, G., Howlett, M., & Ramesh, M. (2015). Bringing governments back in: Governance and governing in comparative policy analysis. *Journal of Comparative Policy Analysis: Research and Practice*, 17(4), 311-321. <https://doi.org/10.1080/13876988.2015.1031977>
- Chaskin, R. J., & Garg, S. (1997). The issue of governance in neighborhood-based initiatives. *Urban Affairs Review*, 32(5), 631-661. <https://doi.org/10.1177/107808749703200502>
- Cheng, Y., Yu, J., Shen, Y., & Huang, B. (2020). Coproducing responses to COVID-19 with community-based organizations: Lessons from Zhejiang Province, China. *Public Administration Review*, 80(5), 866-873. <https://doi.org/10.1111/puar.13244>
- Clarke, J., & Bainton, D., Lendvai, N., & Stubbs, P. (2015). *Making policy move: Towards a politics of translation and assemblage*. Policy Press. <https://doi.org/10.56687/9781447313380>
- Desson, Z., Weller, E., McMeekin, P., & Ammi, M. (2020). An analysis of the policy responses to the COVID-19 pandemic in France, Belgium, and Canada. *Health Policy and Technology*, 9(4), 430-446. <https://doi.org/10.1016/j.hlpt.2020.09.002>
- Dutta, A., & Fischer, H. W. (2021). The local governance of COVID-19: Disease prevention and social security in rural India. *World Development*, 138, Article 105234. <https://doi.org/10.1016/j.worlddev.2020.105234>
- Ekzayez, A., al-Khalil, M., Jasiem, M., Al Saleh, R., Alzoubi, Z., Meagher, K., & Patel, P. (2020). COVID-19 response in Northwest Syria: Innovation and community engagement in a complex conflict. *Journal of Public Health*, 42(3), 504-509. <https://doi.org/10.1093/pubmed/fdaa068>
- Emerson, K., Nabatchi, T., & Balogh, S. (2012). An integrative framework for collaborative governance. *Journal of Public Administration Research and Theory*, 22(1), 1-29. <https://doi.org/10.1093/jopart/mur011>
- Green, D., & Loualiche, E. (2021). State and local government employment in the COVID-19

- crisis. *Journal of Public Economics*, 193, Article 104321. <https://doi.org/10.1016/j.jpubeo.2020.104321>
- Ha, B. T. T., Quang, L. N., Mirzoev, T., Tai, N. T., Thai, P. Q., & Dinh, P. C. (2020). Combating the COVID-19 epidemic: Experiences from Vietnam. *International Journal of Environmental Research and Public Health*, 17(9), Article 3125. <https://doi.org/10.3390/ijerph17093125>
- Hartley, K., Bales, S., & Bali, A. S. (2021). COVID-19 response in a unitary state: Emerging lessons from Vietnam. *Policy Design and Practice*, 4(1), 152-168. <https://doi.org/10.1080/25741292.2021.1877923>
- Hawkins, C. V., & Wang, X. H. (2012). Sustainable development governance: Citizen participation and support networks in local sustainability initiatives. *Public Works Management and Policy*, 17(1), 7-29. <https://doi.org/10.1177/1087724X11429045>
- Holvandus, J., & Leetmaa, K. (2016). The views of neighbourhood associations on collaborative urban governance in Tallinn, Estonia. *PlaNext – Next Generation Planning*, 3, 49-66. <https://doi.org/10.24306/plnxt.2016.03.004>
- Imperial, M. T. (2005). Using collaboration as a governance strategy: Lessons from six watershed management programs. *Administration and Society*, 37(3), 281-320. <https://doi.org/10.1177/0095399705276111>
- Intawong, K., Olson, D., & Chariyalertsak, S. (2021). Application technology to fight the COVID-19 pandemic: Lessons learned in Thailand. *Biochemical and Biophysical Research Communications*, 534, 830-836. <https://doi.org/10.1016/j.bbrc.2020.10.097>
- Kalla, M., & Metaxas, T. (2023). Good governance, resilience, and sustainable development: A combined analysis of USA metropolises' strategies through the lens of the 100 RC Network. *Sustainability*, 15(22), Article 15895. <https://doi.org/10.3390/su152215895>
- Kapucu, N. (2012). Disaster and emergency management systems in urban areas. *Cities*, 29(Suppl. 1), S41-S49. <https://doi.org/10.1016/j.cities.2011.11.009>
- King, C. S., Feltey, K. M., & Susel, B. O. (2015). The question of participation: Toward authentic public participation in public administration. In N. C. Roberts (Ed.), *The age of direct citizen participation* (pp. 383-400). Routledge.
- Le, H. T., Mai, H. T., Pham, H. Q., Nguyen, C. T., Vu, G. T., Phung, D. T., Nghiem, S. H., Tran, B. X., Latkin, C. A., Ho, C. S. H., & Ho, R. C. M. (2020). Feasibility of intersectoral collaboration in epidemic preparedness and response at grassroots levels in the threat of COVID-19 pandemic in Vietnam. *Frontiers in Public Health*, 8, Article 589437. <https://doi.org/10.3389/fpubh.2020.589437>
- Li, H. (2020). Communication for coproduction: Increasing information credibility to fight the Coronavirus. *American Review of Public Administration*, 50(6-7), 692-697. <https://doi.org/10.1177/0275074020942104>
- Li, H., Wen, B., & Cooper, T. L. (2019). What makes neighborhood associations effective in urban governance? Evidence from neighborhood council boards in Los Angeles. *The American Review of Public Administration*, 49(8), 931-943. <https://doi.org/10.1177/0275074019854160>
- Liu, Z., Lin, S., Shen, Y., & Lu, T. (2021). Collaborative neighborhood governance and its effectiveness in community mitigation to COVID-19 pandemic: From the perspective of community workers in six Chinese cities. *Cities*, 116, Article 103274. <https://doi.org/10.1016/j.cities.2021.103274>
- Macke, J., Vallejos, R. V., & Sarate, J. A. R. (2009). Collaborative network governance: Understanding social capital dimensions. In *2009 International Symposium on Collaborative Technologies and Systems* (pp. 163-171). IEEE. <https://doi.org/10.1109/CTS.2009.5067477>

- Mai, N. T. T., & Cuong, M. T. (2022). Vietnam in the combat against COVID-19: Responses of the government and cooperation among stakeholders. In C. J. Shultz, II, D. R. Rahtz, & M. J. Sirgy (Eds.), *Community, economy and COVID-19: Lessons from multi-country analyses of a global pandemic* (pp. 611-632). Springer International Publishing. <https://doi.org/10.1007/978-3-030-9>
- Maloney, W., Smith, G., & Stoker, G. (2000). Social capital and urban governance: Adding a more contextualized 'top-down' perspective. *Political Studies*, 48(4), 802-820. <https://doi.org/10.1111/1467-9248.00284>
- Marek, L. I., Brock, D. P., & Savla, J. (2015). Evaluating collaboration for effectiveness: conceptualization and measurement. *American Journal of Evaluation*, 36(1), 67-85. <https://doi.org/10.1177/1098214014531068>
- Maryati, S., & Azizah, D. M. (2022). Innovation during COVID-19 pandemic: Water, sanitation, and hygiene in informal settlements. *Pertanika Journal of Social Sciences & Humanities*, 30(2), 835-857. <https://doi.org/10.47836/pjssh.30.2.22>
- Mehmetoglu, M., & Jakobsen, T. G. (2017). *Applied statistics using STATA: A guide for the social sciences*. SAGE Publications Ltd.
- Mosley, J. E., & Park, S. (2022). Service providers' influence in collaborative governance networks: Effectiveness in reducing chronic homelessness. *Journal of Public Administration Research and Theory*, 32(1), 130-149. <https://doi.org/10.1093/jopart/muab013>
- Musavengane, R., & Simatele, D. (2017). Significance of social capital in collaborative management of natural resources in Sub-Saharan African rural communities: A qualitative meta-analysis. *South African Geographical Journal*, 99(3), 267-282. <https://doi.org/10.1080/03736245.2016.1231628>
- Nguyen, C., & Phan, T., (2021). Marshalling state and non-state actors. In V. V. Ramraj (Ed.), *Covid 19 in Asia, law and policy contexts* (pp. 57-72). Oxford University Press. <https://doi.org/10.1093/oso/9780197553831.003.0004>
- Oh, Y., & Bush, C. B. (2016). Exploring the role of dynamic social capital in collaborative governance. *Administration & Society*, 48(2), 216-236. <https://doi.org/10.1177/0095399714544941>
- Olivera-La Rosa, A., Chuquichambi, E. G., & Ingram, G. P. D. (2020). Keep your (social) distance: Pathogen concerns and social perception in the time of COVID-19. *Personality and Individual Differences*, 166, Article 110200. <https://doi.org/10.1016/j.paid.2020.110200>
- Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective action*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511807763>
- Parés, M., Boada, J., Canal, R., Hernando, E., & Martínez, R. (2017). Challenging collaborative urban governance under austerity: How local governments and social organizations deal with housing policy in Catalonia (Spain). *Journal of Urban Affairs*, 39(8), 1066-1084. <https://doi.org/10.1080/07352166.2017.1310531>
- Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology*, 24(1), 1-24. <https://doi.org/10.1146/annurev.soc.24.1.1>
- Ran, B., & Qi, H. (2018). Contingencies of power sharing in collaborative governance. *The American Review of Public Administration*, 48(8), 836-851. <https://doi.org/10.1177/0275074017745355>
- Schuhbert, A. (2023). Specifying destination-based networks by governance-mode: A social capital approach to innovative capacity in a rural destination of Azerbaijan. *Tourism Planning and Development*, 20(5), 832-854. <https://doi.org/10.1080/21568316.2021.1953119>
- Schuster, C., Weitzman, L., Sass Mikkelsen, K., Meyer-Sahling, J., Bersch, K., Fukuyama, F., Paskov, P., Rogger, D., Mistree, D., & Kay, K. (2020). Responding to COVID-19 through



- surveys of public servants. *Public Administration Review*, 80(5), 792-796. <https://doi.org/10.1111/puar.13246>
- Scott, T. A., & Thomas, C. W. (2017). Unpacking the collaborative toolbox: Why and when do public managers choose collaborative governance strategies? *Policy Studies Journal*, 45(1), 191-214. <https://doi.org/10.1111/psj.12162>
- Souza, V. B., & Neto, L. M. (2018). A typology of coproduction: Emphasizing shared power. *Critical Perspectives on International Public Sector Management*, 6, 117-139. <https://doi.org/10.1108/S2045-794420180000006006>
- Syasyila, K., Gin, L. L., & Mohamad, Z. S. (2022). The meaning in life and courage of Malaysian frontliners during COVID-19. *Pertanika Journal of Social Sciences & Humanities*, 30(2), 623-640. <https://doi.org/10.47836/pjssh.30.2.11>
- Taniguchi, M. (2022). Governance and state–society relations in Vietnam during the COVID-19 pandemic. *Critical Asian Studies*, 54(2), 198-213. <https://doi.org/10.1080/14672715.2022.2051723>
- Tarkom, A. (2022). Impact of COVID-19 exposure on working capital management: The moderating effect of investment opportunities and government incentives. *Finance Research Letters*, 47(PB), Article 102666. <https://doi.org/10.1016/j.frl.2021.102666>
- Therrien, M. C., & Normandin, J. M. (2020). From policy challenge to implementation strategy: Enabling strategies for network governance of urban resilience. *Risk, Hazards and Crisis in Public Policy*, 11(3), 320-341. <https://doi.org/10.1002/rhc3.12192>
- Tomo, A., Hinna, A., Mangia, G., & De Nito, E. (2018). Collaborative governance: A successful case of public and private interaction in the port city of Naples. In A. B. Savignon, L. Gnan, A. Hinna, & F. Monteduro (Eds.), *Cross-Sectoral Relations in the Delivery of Public Services* (pp. 177-193). <https://doi.org/10.1108/S2051-663020180000006009>
- Tran, B. X., Nguyen, H.T., Pham, H.Q., Le, H.T., Vu, G.T., Latkin, C.A., Ho, C.S., & Ho, R.C. (2020). Capacity of local authority and community on epidemic response in Vietnam: Implication for COVID-19 preparedness. *Safety Science*, 130, Article 104867. <https://doi.org/10.1016/j.ssci.2020.104867>
- Tran, B. X., Phan, H. T., Thi Nguyen, T. P., Hoang, M. T., Vu, G. T., Le, H. T., Latkin, C. A., Ho, C. S. H., & Ho, R. C. M. (2020). Reaching further by village health collaborators: The informal health taskforce of Vietnam for COVID-19 responses. *Journal of Global Health*, 10(1), 3-6. <https://doi.org/10.7189/jogh.10.010354>
- van Hulst, M., de Graaf, L., & van den Brink, G. (2012). The work of exemplary practitioners in neighborhood governance. *Critical Policy Studies*, 6(4), 434-451. <https://doi.org/10.1080/19460171.2012.730763>
- Veenstra, G. (1999). Home is where the governing is: Social capital and regional health governance. *Health & Place*, 5(1), 1-12. [https://doi.org/10.1016/S1353-8292\(98\)00037-9](https://doi.org/10.1016/S1353-8292(98)00037-9)
- Wimmer, A. (2020). *Nation building: Why some countries come together while others fall apart*. Princeton University Press.
- Xu, X., Wang, Y., Li, M., & Kwan, H. K. (2021). Paradoxical effects of performance pressure on employees' in-role behaviors: An approach/avoidance model. *Frontiers in Psychology*, 12, Article 744404. <https://doi.org/10.3389/fpsyg.2021.744404>
- Yan, B., Zhang, X., Wu, L., Zhu, H., & Chen, B. (2020). Why do countries respond differently to COVID-19? A comparative study of Sweden, China, France, and Japan. *American Review of Public Administration*, 50(6-7), 762-769. <https://doi.org/10.1177/0275074020942445>

## APPENDIX—ITEMS IN THE VIETNAMESE CONTEXT

### Perceived Effectiveness of Neighbourhood Collaboration

NC\_ The effectiveness level of coordination work in the community group in the prevention of the area's COVID-19 pandemic (propagating regulations for pandemic prevention, implementing support policies for the people, implementing vaccination).

### Neighbourhood Social Capital

SC1\_ People in the community group always consent to the party's policies and the state's laws and show the spirit of supporting—and helping each other during the pandemic.

SC2\_ People in the community group are always concerned about and actively participate in COVID prevention in the residential sub quarter/quarter (concerned about the number of infected cases, the vaccination status of the people, the implementation of pandemic-prevention policies and measures, participating in the list compilation, taking community samples, and supporting the vaccination work).

SC3\_ Whether the steering committee of the community group notices that people lack cooperation with the community group in the area's COVID prevention (cooperation in executing such preventive measures as health declarations, quarantines, and vaccinations).

### Government Hierarchical Steering

HS1\_ The steering committee of the community group evaluates the priority level of the government, province/city, and local government in the prevention and containment of the spread of COVID-19 in the community (on welfare and care support packages, vaccines).

HS2\_ The steering committee of the community group feels 'very pressured' to be supervised and report to the local government on the prevention and containment of COVID-19 in the area.

HS3\_ The steering committee of the community group feels 'cared for' by the local government when implementing the prevention and containment of COVID-19 in the area (encouragement, stimulation, physical-mental care).

HS4\_ Assess the extent to which the local government has provided comprehensive support for the community group to prevent and contain the spread of COVID-19 in the community (human and material resources, essential medical support).

*Review Article*

## **Teacher Collaboration Through Digital Tools in the 21st Century— Issues and Challenges: A Comprehensive Literature Review**

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### **ABSTRACT**

Teacher collaboration is important for teacher professionalism, student learning and school progress. Understanding the tools, issues, and challenges inherent in teacher collaboration via technology becomes increasingly imperative in addressing the complexities of 21st-century education. However, scarce attention has been paid to using digital tools in teacher collaboration. Therefore, this paper aims to comprehensively review the digital tools employed by teachers to enhance collaboration and the issues and challenges confronted when digital tools were integrated into teacher collaboration. Eleven journal articles from the Web of Science, ERIC and Science Direct in the past five years were comprehensively reviewed. Findings indicate that various digital tools have revolutionized how teachers interact, communicate, and collaborate. However, issues and challenges hinder the smoothness and effectiveness of teacher collaboration via technology. Educational authorities are highly urged to implement various policies to develop digital infrastructure, promote teachers' digital competence and identify approaches to foster effective, sustained and high-level teacher collaboration through technology. Limitations and recommendations for future research are also discussed.

*Keywords:* Challenges, digital tools, issues, teacher collaboration

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### **INTRODUCTION**

The educational landscape is changing, with a growing emphasis on fostering collaborative practices among teachers (Methlagl, 2022). Teacher collaboration entails collective interactions within a group in activities with the common goal of accomplishing a shared task. It involves

working and reflecting jointly for job-related purposes (Vangrieken et al., 2015). Teachers need to be adept collaborators to carry out their duties effectively. Ongoing and professional collaboration among teachers ensures the quality of education and enhances successful school development (García-Martínez et al., 2021). Both teachers and students experience positive outcomes through high-quality collaboration.

Many studies have constantly emphasized the importance and benefits of teacher collaboration. Teacher collaboration benefits students, teachers, and even schools (Vangrieken et al., 2015). Collaboration among teachers helps address the diverse needs of students and establish a shared responsibility to enhance students' learning, ultimately boosting overall student accomplishments (Jones-Goods, 2018). Collaboration implies a positive influence on the confidence, job satisfaction, and sense of belonging of teachers (Reeves et al., 2017). Participating in collaborative groups enables teachers to unite, work as teams, and foster group thinking, enhancing teachers' self-efficacy (Choi & Kang, 2019). Schools that value professional collaborations and where teachers are actively involved in collaborative activities prove more successful than those that do not (Özbilen & Çekiç, 2022). Such activities add to the school's problem-solving abilities, enhancing the culture of collaboration (Yilmaz, 2022). Researchers must consistently strive to adapt to the dynamic demands of collaborative initiatives in the educational field in the 21st century (Şahin,

2023). Thus, this paper would further lead to exploration into teacher collaboration understanding.

By acknowledging the increasingly important role of teacher collaboration in educational sectors, great attention has been paid to exploring various aspects of teacher collaboration in different studies. Five systematic literature reviews have been identified in the five years to provide insights on enhancing teacher collaboration for instructional improvement, students' academic achievement and school progress (García-Martínez et al., 2021, 2022; Kolleck, 2019; Şahin, 2023; Weddle, 2022). The synthesis of these literature reviews, as shown in Table 1, aims to specify the research gaps identified in this paper:

The recent reviews mainly focused on factors or ways to encourage teacher collaboration and the impacts of teacher collaboration on teacher professional development and student learning (Table 1). In the current discourse on collaboration within educational settings, the predominant focus appears to be on the general improvements that students, teachers, and schools can achieve. However, critical examination reveals a noticeable gap in exploring technological dimensions within teacher collaboration and the formidable challenges in leveraging technology for collaborative purposes.

Based on the review, the research by Kolleck (2019) and Weddle (2022) underscored a conspicuous absence of engagement with the technological facets of teacher collaboration. While contributing

Table 1  
*Synthesis of the recent literature review*

Author & Year	Database & Timeframe	Research Focus	Main Findings
Kolleck (2019)	Eric, PubPsych, Sciencedirect, Primo and Web of Knowledge: 25 articles published after 1990 were selected.	The relationship between motivation and collaboration	Intrinsic motivation, collegial support and a shared vision will impact collaboration effectiveness. Teacher collaboration is regarded as a threat to teacher autonomy.
García-Martínez et al. (2021)	WOS and Scopus: 18 articles between 2009 and 2019 were selected	The impact of teacher collaboration on school improvement	The most collaborative methods focused on teaching techniques and enhancing students' academic performance.
García-Martínez et al. (2022)	WOS and Scopus: 16 articles between 2009 and 2019 were selected	The ways to promote teacher collaboration by establishing professional networks	Technology helps foster productive relationships among teachers by establishing a collaborative networking culture.
Weddle (2022)	Eric and Google Scholar: 43 peer-reviewed sources from 2006 to 2018 were selected.	The methods used to study collaboration for instructional improvement	Utilizing interdisciplinary and critical theories could broaden our understanding of collaboration aiming at transformation.
Şahin (2023)	WOS, Eric and Scopus: 40 articles between 2018 and 2022 were selected	Studies on teacher collaboration in terms of English language teaching	Collaboration greatly affects the nature and scope of English Language Teaching.

to the broader discourse, their studies fail to delve into the intricate web of challenges faced by educators seeking to enhance collaboration through the utilization of technologies. On the other hand, García-Martínez et al. (2021) marginally touched upon the role of technology in teacher collaboration by advocating for future research to dissect the impact of educational technology and teacher training on psychosocial factors. The study suggests identifying strategies that facilitate teacher collaboration, albeit within a limited technological scope. However, the omission

of a detailed exploration into the challenges teachers face in incorporating technology hampers the comprehensiveness of their contribution.

Furthermore, García-Martínez et al. (2022) delved into establishing networks to enhance online collaboration. Yet, their investigation is confined to cultivating a collaborative networking culture and the methodologies for its establishment. The critical examination of the technological intricacies in creating effective online collaboration is noticeably absent from their exploration. In addition, this study reviewed

articles dated 2011 to 2018. It has been more than five years since then.

Besides, Şahin (2023) confirmed the positive impacts of collaborating with other teachers through technological tools and platforms for language learning and teaching. Yet the study did not systematically summarize the technological tools commonly used in teacher collaboration, nor did it elaborate on the challenges or barriers in using technology for collaboration. Hence, a comprehensive literature review on teacher collaboration in the 21st century addressing technology integration in collaborative efforts remains comparatively scarce.

With the advancement of technology, changes in all aspects of fields are undeniable (Nugrohowati et al., 2020; Singh et al., 2021). In the realm of education, the methods for both teaching and learning have been shaped by the introduction of technological platforms, digital tools, and other social media resources (Annamalai, 2021; Shah et al., 2022). The research fields have demonstrated a growing interest in the relationship between collaboration and technology (Lee et al., 2021). Technology can expand teachers' networks and offer more channels for them to interact and share knowledge (Shah et al., 2022). The negative influence of technology is also indicated at the same time, leading to mistrust, virtual bullying and an overburden of information (Jin et al., 2023). Challenges and obstacles exist between teachers and social media use in collaboration and teaching, such as privacy management, teaching effectiveness and technical integration of different tools (Manca & Ranieri, 2016). It is beneficial and

necessary to comprehensively investigate the application of technologies in teacher collaboration to leverage its advantages fully (García-Martínez et al., 2022; Şahin, 2023).

The primary challenges affecting collaborative actions in teaching were identified as problems related to digital tools (Hajar & Manan, 2022). A digital tool is straightforwardly characterized as software, social media, learning platforms, websites, or digital resources that teachers use to foster collaboration for professional development and student progress (Hrastinski, 2021). Digital tools have been widely applied in the field of teacher collaboration. Video-conferencing software enabled teachers from different schools or universities to interact and collaborate, contributing to teachers' mutual growth and advancement regardless of distance constraints (Koutsouris et al., 2017). Teachers use social media like Twitter and Facebook to enhance professional development collaboration and support students' learning progress (Chugh & Ruhi, 2018; Liljekvist et al., 2021). E-learning platforms enhance online collaboration among teachers, which greatly benefits school improvement (García-Martínez et al., 2022). E-mail and other web-based communication tools were adopted for pre-service teachers to collaborate online with overseas partners. It provides pre-service teachers with authentic collaboration chances and boosts their confidence (Hur et al., 2020). English teachers also adopted digital tools and platforms to enhance language learning and teaching (Şahin, 2023). Those studies have evidenced

how teachers leverage digital tools to build collective expertise pertinent to their daily teaching practices to support their professional growth and students' learning.

Digital tools provide opportunities that facilitate the sharing of materials and enhance interactions between trainers and teachers, as well as among teachers (Şahin, 2023). The nature of digital tools employed to support collaborative activities is crucial in understanding and studying teacher collaboration (Borko & Potari, 2024). Few studies have attempted to synthesize what and how digital tools are used in teacher collaboration. Identifying further technological tools to improve current collaboration methods is an area that remains inadequately explored (Maican et al., 2019), and more efforts need to be made (García-Martínez et al., 2021). Teachers sometimes are reluctant to compromise on technology-related issues. Integrating new technology into collaboration could complicate matters further, making collaborative teaching quite intricate (Nistor, 2016). Even though the school has equipped itself with the latest instructional software or hardware, many teachers fail to utilize the newly acquired technologies (Cooper & Bray, 2011). A lack of preparedness for technological knowledge and practice impedes teachers from adapting to changes in teaching and collaborating (Hardiah, 2020). As we tackle the complexities of the 21st century, understanding the tools, issues, and challenges inherent in teacher collaboration becomes increasingly imperative. Further exploration in this area could lead to significant advancements in promoting

effective teamwork in educational settings in the new era.

Therefore, this paper seeks to review the digital tools employed by teachers to enhance collaboration in the last five years and the issues and challenges encountered when the digital tools were integrated into teacher collaboration. Correspondingly, the research questions are:

- a. What digital tools have been employed by teachers to enhance collaboration over the last five years?
- b. What issues and challenges were encountered when the digital tools were integrated into teacher collaboration?

## METHODOLOGY

According to Onwuegbuzie (2016), the comprehensive literature review is a methodology that can be conducted either as a standalone process or to inform primary research at various stages. The main goal is to review issues related to a specific topic, and multiple resources are often advocated. By utilizing diverse sources, the reviewer can extract greater insights from the data, potentially leading to a more holistic understanding of a particular phenomenon and, consequently, elevating the quality of the syntheses (Onwuegbuzie et al., 2012). This review aims to provide a comprehensive understanding of the application of digital tools to enhance teacher collaboration and the challenges accompanied during the process. Seven steps are involved in conducting a comprehensive literature review: exploring topics, initiating a literature search, sorting and organizing

the data, selecting the data, expanding the search, data analysis and synthesis, and results presentation (Onwuegbuzie, 2016).

### Literature Search

The literature was searched and collected from December 2023 to January 2024. A wide-ranging search across various databases identified possible journal papers that describe digital tools integrated into teacher collaboration. Databases, including Web of Science, Science Direct, and ERIC, were chosen based on their impact and reputation. Those databases usually encompass a broad range of peer-reviewed articles from high-ranking journals, typically of high quality and with enough data to support this review analysis. Besides, ERIC provides the biggest and most comprehensive collection of education journals. Therefore, the quality and comprehensiveness of the literature selected for this review are highly justified.

The rapid development of technology prompts this research to focus on selecting the latest literature published between 2019 and 2023. The main goal is not to offer a historical overview but to explore the up-to-date applications of digital tools in teacher collaboration to gain practical implications. Besides, the paper reviewed by García-Martínez et al. (2022), which focused on networks for online collaboration, included articles up to 2018. This is another reason the articles selected for the current review start from 2019. A comprehensive literature review allows for a review of studies employing various methodologies, encompassing quantitative and qualitative approaches. It synthesizes

necessary information from qualitative and quantitative studies (Onwuegbuzie, 2016). The following key terms aided with Boolean operators were applied in the literature searching stage: “teacher collaboration” OR “collaborative teaching” OR “teamwork” OR “professional collaboration” OR “collective teaching” AND “technologies/technology” OR “digital tools.”

### Inclusion and Exclusion Criteria

Effective inclusion and exclusion criteria play a crucial role in avoiding selection being either too broad or too limited in scope (Toronto & Remington, 2020). It is a guideline for sorting and organizing information suitable for this review analysis. Based on the previous analysis, the inclusion and exclusion criteria for this review are listed below:

- a. The articles were confined to only the English language.
- b. Peer-reviewed articles were included. Conference papers, books, and unpublished papers (Master’s theses, doctoral dissertations) were excluded.
- c. Full-text articles that could be downloaded for free were included. Those that were chargeable or had no full text available were excluded.
- d. Only articles in which digital tools were applied to support teacher collaboration were included. Those articles that merely mentioned or did not centralize around this topic were excluded.
- e. Only collaboration among teachers was included. The teacher-student



collaboration, school or university-enterprise collaboration and school-school collaboration were excluded.

### Data Selection and Expansion

Following the selection procedures adopted by Vangrieken et al. (2015), the studies were first chosen according to the titles, resulting in 1081 articles from three databases. Then, abstracts and keywords were examined to exclude articles unrelated to the core research topics of this review. The articles identified were reduced to 54 thereafter. Subsequently, further reading was conducted, focusing on the introductory and concluding sections of articles to eliminate those that did not meet the specified exclusion criteria. Ten articles were selected for further analysis. Finally, a snowballing technique was employed to identify more relevant articles. The same steps, inclusion and exclusion criteria, were applied to articles found through

snowballing. After eliminating duplicates, 11 articles were eligible for analysis. Tables 2 and 3 provide an overview of the studies selected for further analysis in terms of methods used and context, respectively.

### Data Analysis and Synthesis

Tables 2 and 3 show that the selected articles employ diverse methodologies and encompass a broad spectrum of contexts, providing a comprehensive and global perspective for this literature review. A thorough evaluation of the articles centered on digital tools integrated into teacher collaboration was presented. Key information from each selected study was extracted. Data encompassing the following aspects were categorized: (1) author/s and year of publication; (2) digital tools used; (3) focus; (4) key findings (Table 4).

Table 2  
*Studies selected in terms of methods used*

Methods Used	Number of Articles	Specific Articles
Quantitative	3	Maican et al. (2019), Delgado et al. (2021), Richter et al. (2022)
Qualitative	7	Hilli (2020), Acar & Peker (2021), E.R. Tazhibayeva & Dolidze (2021), Guo et al. (2022), Nguyen et al. (2023), Nicholas et al. (2023), Hoeh et al. (2023)
Mixed method	1	Carpenter et al. (2022)
Total	11	

Table 3  
*Studies selected in terms of context*

Context	Number of Articles	Specific Articles
Romania	1	Maican et al. (2019)
United States	1	Hoeh et al. (2023)
China	1	Guo et al. (2022)
German	1	Richter et al. (2022)
Turkey	1	Acar & Peker (2021)
Australia	2	Nguyen et al. (2023), Nicholas et al. (2023)
Finland	1	Hilli (2020)
Russia	1	Delgado et al. (2021)
International context	2	Tazhibayeva & Dolidze (2021), Carpenter et al. (2022)
Total	11	

Table 4  
*Summary of the studies selected for analysis*

Author/s & Year	Digital tools used	Focus	Key Findings
Maican et al. (2019)	Email, websites, E-learning platforms, video	Teachers' attitude and views on communication and collaboration applications	E-mail is the primary communication and collaboration application. Technology anxiety and self-efficacy affect the acceptance and use of online applications. Work engagement mediates the relationship between personality traits and online application use.
Hilli (2020)	Video conferencing system (Blackboard Collaborate), Google Hangout, FaceTime	Teacher collaboration in a virtual learning environment	Collaboration between school leaders can enable long-term teacher collaboration. The digital competence of teachers and the digital infrastructure will affect the effectiveness of teacher collaboration. VLEs can inspire new teaching practices and professional development.
Acar & Peker (2021)	eTwinning platform	Teachers' purposes and effects of using the eTwinning platform	The eTwinning platform was used for project building, online courses, professional development, and collaboration. The platform significantly improves teachers' professionalism and collaboration. The teachers' perceptions of their profession are positively shaped.
Tazhibayeva & Dolidze (2021)	Websites, Zoom Desktop video-conferencing software	E-collaboration in teacher professional engagement initiatives	E-collaboration is time and cost-effective for teacher development. Most teachers are motivated and committed to collaborative activity. collaboration between language teachers is essential for students' improvement.
Delgado et al. (2021)	Zoom, LMS	The use of better tools and methods to teach science classes on different campuses within a university	Diversity and dominion were gained with time and experience and transmitted to similar areas through collaboration. A strong link is identified between students' recommendations and their final grades. Students react positively towards teachers' collective efforts during the learning process.

Table 4 (Continue)

Author/s & Year	Digital tools used	Focus	Key Findings
Carpenter et al. (2022)	Facebook, Twitter, Padlet, Zoom, Flipgrid	Teachers' collaboration in a Global Read Aloud project	Technology expands the opportunities for teacher collaboration. Teachers benefit a lot from collaborating with other teachers in the project. Teachers share a positive view on collaborating with others in GPA, yet time and other challenges will sometimes hinder collaboration efforts.
Guo et al. (2022)	Online class software, WeChat, pre-recorded videos	Co-teaching program between local and remote teachers	Co-teaching has a positive impact on teachers and students in rural areas. Ineffective instruction, communication, and insufficient reward hinder collaboration in co-teaching.
Richter et al. (2022)	Instagram	Teacher collaboration on Instagram and its connection to teachers' self-efficacy, enthusiasm for teaching, and perceptions of digital social support	Three collaborative activities on Instagram: information seeking, information sharing, and co-creating. Enthusiastic teachers are more likely to seek information on Instagram. Teachers with higher self-efficacy are more likely to share content. Seeking, sharing, and co-creating are positively associated with perceived digital social support.
Nguyen et al. (2023)	Google Drive, Google Docs, and E-mail	Factors that enhance or hinder teachers' collaboration in an online platform	Limited time and feedback, as well as difficulty in observing, hinder online collaboration. Sharing objectives, positive attitudes, and active sharing and interaction contribute to online collaboration. The roasted lesson planning process proves to be beneficial for online collaborative activities.
Nicholas et al. (2023)	Facebook	Teacher-driven online collaboration and professional learning via Facebook	Teachers mainly use Facebook groups to provide peer support. School teachers rarely posted on Facebook groups and even discontinued posting support a year later. Further research is needed to explore the effective use of social media for cross-sector collaboration.
Hoeh et al. (2023)	Video	Interdisciplinary collaboration among teachers in a faculty learning community	The faculty learning community will help us understand pre-service teachers' needs. Interdisciplinary collaboration contributes to teachers' professionalism.

## RESULTS

A total of 11 studies were analyzed in the present comprehensive literature review, encompassing multiple methodologies and various contexts worldwide. The findings were presented and categorized within the framework of the guiding research questions and aims outlined earlier. Qualitative data analysis techniques were optimal for analyzing the information extracted from selected studies. Theme analysis, one of the qualitative data analysis techniques, was applied here, and different themes were extracted to inform a paragraph or even a session (Onwuegbuzie et al., 2012). Hence, this part is organized according to two sub-themes: (1) digital tools employed in teacher collaboration and (2) issues and challenges encountered while integrating digital tools in teacher collaboration.

### Digital Tools

With the evolution of technology integration into collaboration, teachers are no longer confined to traditional digital tools like telephone or radio. Many digital tools have come into place and contribute to enhancing teacher collaboration (Tazhibayeva & Dolidze, 2021). Upon synthesizing the selected studies, the identified digital tools can be divided into four categories based on the types: social media, online learning platforms, video and video-related software, e-mail, and websites.

### Social Media

Various social networking media, including Instagram (Richter et al., 2022), Facebook

(Carpenter et al., 2022; Nicholas et al., 2023), Twitter (Carpenter et al., 2022), and WeChat (Guo et al., 2022), are employed by teachers during the process. Three kinds of collaborative activities, including information seeking, sharing, and co-creating, are identified on Instagram. Teachers are more inclined to perform low-level collaborative activities, like seeking and sharing information, than high-cost co-creating on this platform (Richter et al., 2022). In the study by Nicholas et al. (2023), teachers are less likely to post information on Facebook and tend to seek support from their peer colleagues through the platform. In another case in the study by (Carpenter et al., 2022), teachers mutually post materials, ideas and curriculum on Facebook and Twitter, except for seeking partners. However, they are still less inclined to co-create materials or curricula with each other, which is in line with the findings of Richter et al. (2022). WeChat is employed to enhance communication and collaboration between remote and local teachers in rural areas of China in the process of live-streaming or pre-recorded course delivery to help teachers solve problems (Guo et al., 2022). All the above-mentioned platforms contribute to the interaction and sharing among teachers to some extent.

### *Online Learning Platform*

Teachers have utilized such online learning platforms as the eTwinning platform (Acar & Peker, 2021), Padlet (Carpenter et al., 2022), online class software (Guo et al., 2022), and LMS (Learning Management

System; Delgado et al., 2021; Hilli, 2020) to facilitate collaboration. The eTwinning platform is widely employed by teachers in European schools to collaborate and conduct projects, hold seminars, and attend online courses. Teachers usually find partners to build projects and exchange ideas on this platform (Acar & Peker, 2021). Padlet, an online virtual ‘bulletin board,’ was also identified in the study of Carpenter et al. (2022), which aimed to help teachers connect and share resources. Some coordinate lessons and divide responsibilities through this platform. Remote teachers deliver classes through online class software to guide local teachers in teaching and enhance students’ learning (Guo et al., 2022). Like Guo et al. (2022), Hilli (2020) also explored collaboration between local and rural teachers via LMS. Such LMS is adopted to enhance collaboration between teachers on different university campuses. It offers teachers supporting resources to prepare materials suitable for online classes (Delgado et al., 2021).

### ***Video and Video-related Software***

Video, Zoom, Flipgrid and other video-conferencing software are widely used by teachers to collaborate (Carpenter et al., 2022; Delgado et al., 2021; Guo et al., 2022; Hilli, 2020; Hoeh et al., 2023; Tazhibayeva & Dolidze, 2021). Pre-recorded videos from urban classrooms are transmitted directly to rural classrooms for students to watch. The rural teacher will stop the video in case of any questions. It is a different type of co-teaching to enhance teachers’

professionalism and students’ achievements (Guo et al., 2022). Training videos are collaboratively developed so teachers in an online learning community can imitate and learn professional skills. Group analysis, discussion and reflection are followed to improve teachers’ expertise and instructional skills (Hoeh et al., 2023). A video conferencing system named Blackboard Collaborate provides a virtual environment for teachers to discuss concerns and address problems collaboratively. It is also noted that Google Hangout and FaceTime were previously used by teachers for virtual teaching (Hilli, 2020). Zoom and other video conferencing software are applied in a series of E-collaborative activities, encompassing group discussions, sharing all kinds of resources, online workshops and real-time chatting. It enables instant communication and collaboration among teachers (Delgado et al., 2021; Tazhibayeva & Dolidze, 2021).

### ***E-mail and Websites***

Maican et al. (2019) and Nguyen et al. (2023) identify e-mail and websites such as Google Drive and Google Docs for teachers to collaboratively share resources and learn from each other. E-mail has proven to be the most frequently used collaboration application among teachers and is considered a classical form of collaboration. It is a tool for teachers to communicate, share documents and maintain productive relationships (Maican et al., 2019). Lesson plans and other ideas to enhance course collaboration are shared among English language teachers through

e-mail, Google Drive and Google Docs (Nguyen et al., 2023).

### **Issues and Challenges**

Multiple digital tools play a significant role in fostering collaborative efforts among teachers. Teachers can get emotional, social, and instrumental support through digital collaboration (Richter et al., 2022). These digital tools offer a virtual collaborative space for teachers to reflect on their teaching, reduce professional loneliness, and increase chances for professional development (Guo et al., 2022; Hilli, 2020; Hoeh et al., 2023). They provide multiple resources and fellow professionals to enhance both teaching and learning (Carpenter et al., 2022; Delgado et al., 2021; Tazhibayeva & Dolidze, 2021) and positively shape teachers' perceptions of professionalism (Acar & Peker, 2021). They reduce workload, save time, enhance class-delivery efficiency, boost teachers' self-confidence and foster harmonious collegial relationships to make teachers feel connected (Acar & Peker, 2021; Nguyen et al., 2023). Yet, to some teachers, the tools are reserved for resolving urgent difficulties that need a timely and quick response (Nicholas et al., 2023). Despite the advantages, teachers face a series of issues and challenges in employing digital tools to enhance collaboration with each other.

#### ***Hard to Maintain Long-term Collaboration***

Different teacher schedules and time differences make collaboration challenging and sometimes even tedious (Hoeh et al.,

2023). It is difficult for teachers to conduct efficient observation and obtain sufficient feedback in collaboration through digital tools (Nguyen et al., 2023). Lacking a reliable mechanism to assess the resource's quality results in misunderstood or missing information, leading to mistrust and frustration among teachers (Richter et al., 2022; Tazhibayeva & Dolidze, 2021). Some fail to adhere to their commitments due to overwhelming connections and demanding sharing needs (Carpenter et al., 2022). Some discontinue posting information and support on social media because they do not receive enough comments or acknowledgments. It is hard to maintain ongoing and active interaction in a virtual environment (Guo et al., 2022; Nicholas et al., 2023). The frequent turnover of teachers, with individuals leaving and joining, poses a significant obstacle to maintaining continuous and sustainable collaborative efforts (Hilli, 2020). The elevated costs associated with interaction likewise diminish teachers' incentive for sustained collaboration through technology (Guo et al., 2022).

#### ***Unwillingness and Inadequate Competence to Participate***

Teachers are reluctant to participate in collaborative programs, afraid of unforeseen consequences it may bring, losing teaching autonomy (Hilli, 2020), and lowering social and academic positions, for instance (Guo et al., 2022). Some teachers are not competent enough and have a hard time learning to interact with others using digital tools.

This limitation poses a challenge, as they encounter difficulties utilizing the newly introduced multifunctional technologies to ensure immediate communication and collaboration (Hilli, 2020). Lacking the necessary digital skills, experience, and confidence restricts their engagement in the collaboration process (Carpenter et al., 2022), decreasing their self-efficacy in co-teaching and weakening their control of classes (Guo et al., 2022).

### ***Insufficient Digital Infrastructure***

Technology scarcity and poor linkage sometimes cause troubles in teacher collaboration, impeding the timely fulfillment of collaborative tasks (Tazhibayeva & Dolidze, 2021). Teachers must reconsider their teaching routines and evaluate the compatibility of the software with planned lessons to make sure all teachers can observe and engage as wireless networks proved inadequate in supporting audiovisual transmission. Technology-related issues even hinder the establishment of teacher relationships due to non-timely communication and collaboration (Hilli, 2020). The technology platforms supported by one school may be prohibited by another, complicating teachers' efforts to perform collaborative activities (Carpenter et al., 2022). Insufficient support and technological training from educational institutions make teachers feel isolated in managing diverse teaching tasks, leading to difficulty in collaboration (Delgado et al., 2021).

## **DISCUSSION**

This comprehensive literature review aimed to explore contemporary applications of digital tools in fostering teacher collaboration. The study delves into the issues and challenges teachers encounter as they collaborate through digital tools, emphasizing the practical implications derived from these insights. A thorough examination of articles spanning the last five years from three prominent databases was undertaken to accomplish this.

Teachers and teacher educators in different contexts worldwide have tried various ways to explore multiple digital tools to support their collaborative activities and enhance their professional practices. The landscape of digital tools in teacher collaboration is diverse, encompassing social media, online learning platforms, video conferencing, e-mail and websites. These digital tools can be employed by teachers in different educational activities and foster the adoption of novel pedagogical strategies and creative teaching techniques. This technological transformation has revolutionized teachers' interactions, communication, and collaboration, aligning with the virtual collaboration trend identified by Şahin (2023) and García-Martínez et al. (2022). Virtual collaboration, distinguished by its flexibility and adaptability, offers a unique platform for teachers to contribute more evenly (Singh et al., 2021). This trend facilitates the exchange and adaptation of resources via feedback and joint elaboration, thereby acting as a foundation for nurturing communities of practice among educators

(Borko & Potari, 2024). However, the feasibility and extent to which these digital tools can support collaborative activities among participants in a virtual environment are still in question. It is crucial to recognize the inability of digital tools to entirely replace face-to-face interactions (Tazhibayeva & Dolidze, 2021), prompting the need for a balanced approach that integrates traditional and technology-supported collaboration. This presents an intriguing avenue for future research to explore effective strategies for seamlessly combining online and offline teacher collaboration to optimize professional development and student progress.

The selection of digital tools applied in collaboration is subject to different contexts. Teachers commonly use tools such as Facebook and e-mail in Western countries for daily communication, whereas, in China, WeChat is the preferred choice. The efficiency of digital tools tends to depend on the nature of different tasks. Social media tools are more effective for collaborative tasks requiring real-time responses and frequent interactions. However, video conferencing software is usually the better option for more complex work that demands in-depth discussions. This is consistent with the findings presented by Borko and Potari (2024), who claimed that different tools allow teachers to engage in collaborative activities in different contexts.

Building upon Little's (1990) categorization of collaboration levels, our review reveals a prevalence of low-level collaboration among teachers using digital

tools, predominantly focused on resource sharing and support seeking. This contrasts with Hargreaves and O'Connor's (2017) emphasis on weak collegiality and dialogue-centric collaborations. The gender difference Bush and Grotjohann (2020) identified in high-level collaborative activities is absent in our study. Nevertheless, collaboration closely tied to teaching practice and unified by common goals proves impactful in shaping beliefs and improving outcomes (Carpenter et al., 2022), urging further exploration of strategies to promote high-level collaborative activities rich in collegiality.

Self-efficacy and technological competence emerge as critical factors influencing virtual collaboration among teachers. High self-efficacy and better technology knowledge correlate with increased interaction, while the lack of technological competence hinders collaborative efforts. Productive relationships among teachers can be fostered through technology (García-Martínez et al., 2022). The positive interaction between teachers' self-efficacy, digital competence, and collegial collaboration underscores the need for policies and training programs to enhance teachers' technological capabilities (Basilotta-Gómez-Pablos et al., 2022). Besides, those digital tools are more frequently used and have proven to be more successful in schools with rich resources and better technological facilities, as teachers are provided with more opportunities for digital training and are more easily accessible to the internet. This is certified



by Manca and Ranieri (2016), who stated that the difficulty in privacy management and technical integration of different tools have brought obstacles to collaboration through technology. Recognizing the interconnectedness of digital infrastructure and tools emphasizes the pivotal role of investments in school infrastructure in facilitating effective technology integration and teacher adaptation.

The intricacies of virtual collaboration reveal that trust, often established through in-person interaction ('touch'), is a crucial factor in team performance (De Jong et al., 2016). The challenge lies in the virtual environment's initial low trust, which gradually grows through effective communication over time (Baturay & Toker, 2019). Trustful relationships and closeness between teachers impact teachers' motivation to collaborate. Intrinsic motivation, collegial support and a shared vision contribute to collaboration effectiveness (Kolleck, 2019). However, though teachers are eager to engage in deeper collaborative relationships with colleagues, they simply do not have time due to a shift of focus on administrative expectations and duties. The expectations for collaboration outside of meetings were often unclear, and many teams encountered structural barriers to working together (Lockton, 2019). This highlights an urgent need for administrative actions to better support collaborative efforts. Besides, the tension between teachers' autonomy and collaboration in the digital realm necessitates careful consideration, prompting future research to explore strategies that promote

trust for sustained, effective, and high-level teacher collaboration through technology.

## CONCLUSION

This comprehensive review is critical as it addresses the growing necessity of understanding digital tools in teacher collaboration, directly contributing to educational effectiveness in the digital age. It fills existing research gaps, offers practical implications in collaborative practices among teachers, and provides insights into enhancing collaborative efforts in educational environments.

The results from this review demonstrated that integrating technologies opens new avenues for teachers to collaborate. Promoting teacher collaboration via technology breaks through constraints in time and space, allowing teachers to communicate and collaborate with peers worldwide.

## Implications for Practice

Findings indicate that research and practice on technology-supported teacher collaboration remain in their early stages. There remains a significant gap between current practices and the potential benefits that technology can offer to enhance collaboration among educators. Therefore, continued interest and continuous efforts should be directed toward collaborating via technology to bridge this gap. Educational stakeholders, including teachers, school administrators, and policymakers, need to work together and make substantial advancements to overcome the barriers hindering teacher collaboration

and maximize the transformative potential of technology in facilitating teacher collaboration.

Teachers are central to enhancing collaborative activities through digital tools in their daily practice. It is of great significance for them to develop a positive attitude towards collaboration and actively participate in diverse training programs designed to enhance their teaching skills and digital competence, ultimately leading to increased efficiency and confidence in collaboration via technology. The establishment of mentorship programs and provision of resources by schools are also advocated through which the technologically competent and experienced teachers can guide newcomers in leveraging collaborative tools. Additionally, policymakers are recommended to cover digital competence in training programs for pre-service and in-service teachers and prioritize funding for upgrading technological infrastructure in schools, especially rural areas, to ensure teachers have equal and reliable access to a wide range of digital tools. Through the joint efforts of relevant stakeholders, educational institutions can fully leverage the advantages of digital tools to foster a collaborative and innovative teaching and learning environment in the 21st century.

### Limitations and Suggestions

This paper specifically selected research articles that were downloaded from three databases. This could result in omitting other possible digital tools applied to teacher collaboration. Hence, the scope of our

findings is constrained by only reviewing specific dimensions from restricted databases within the field. However, the constraints outlined here pave the way for future research endeavors. Therefore, subsequent researchers may expand their scope by incorporating multiple articles from additional databases and extending the timeframe to gain a more comprehensive perspective. Longitudinal studies are also encouraged to understand the long-term effects of teacher collaboration on teacher professional development and students' learning outcomes. This paper also paves the way for establishing global learning communities that foster cultural understanding and teacher professional development, eventually contributing to global educational enhancement.

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### REFERENCES

- Acar, S., & Peker, B. (2021). What are the purposes of teachers for using the eTwinning platform and the effects of the platform on teachers? *Acta Didactica Napocensia*, 14(1), 91-103. <https://doi.org/10.24193/adn.14.1.7>
- Annamalai, N. (2021). Online learning during COVID-19 Pandemic. Are Malaysian high school students ready? *Pertanika Journal of Social Sciences & Humanities*, 29(3), 1571-1590. <https://doi.org/10.47836/pjssh.29.3.06>
- Basilotta-Gómez-Pablos, V., Matarranz, M., Casado-Aranda, L.-A., & Otto, A. (2022). Teachers'

- digital competencies in higher education: a systematic literature review. *International Journal of Educational Technology in Higher Education*, 1, Article 8. <https://doi.org/10.1186/s41239-021-00312-8>
- Baturay, M. H., & Toker, S. (2019). The comparison of trust in virtual and face-to-face collaborative learning teams. *Turkish Online Journal of Distance Education*, 20(3), 153-164. <https://doi.org/10.17718/tojde.601929>
- Borko, H., & Potari, D. (Eds.). (2024). *Teachers of mathematics working and learning in collaborative groups: The 25th ICMI Study*. Springer International Publishing. <https://doi.org/10.1007/978-3-031-56488-8>
- Bush, A., & Grotjohann, N. (2020). Collaboration in teacher education: A cross-sectional study on future teachers' attitudes towards collaboration, their intentions to collaborate and their performance of collaboration. *Teaching and Teacher Education*, 88, Article 102968. <https://doi.org/10.1016/j.tate.2019.102968>
- Carpenter, J. P., Kerkhoff, S. N., & Wang, X. (2022). Teachers using technology for co-teaching and crowdsourcing: The case of Global Read Aloud collaboration. *Teaching and Teacher Education*, 114, Article 103719. <https://doi.org/10.1016/j.tate.2022.103719>
- Choi, J., & Kang, W. (2019). Sustainability of cooperative professional development: Focused on teachers' efficacy. *Sustainability*, 11(3), Article 585. <https://doi.org/10.3390/su11030585>
- Chugh, R., & Ruhi, U. (2018). Social media in higher education: A literature review of Facebook. *Education and Information Technologies*, 23(2), 605-616. <https://doi.org/10.1007/s10639-017-9621-2>
- Cooper, O. P., & Bray, M. (2011). School library media specialist-teacher collaboration: Characteristics, challenges, opportunities. *TechTrends*, 55(4), 48-55. <https://doi.org/10.1007/s11528-011-0511-y>
- De Jong, B. A., Dirks, K. T., & Gillespie, N. (2016). Trust and team performance: A meta-analysis of main effects, moderators, and covariates. *Journal of Applied Psychology*, 101(8), 1134-1150. <https://doi.org/10.1037/apl0000110>
- Delgado, F., Enríquez-Flores, M., & Jaimes-Nájera, A. (2021). Lessons in the use of technology for science education during covid-19 age under a teachers' collaboration cluster. *Education Sciences*, 11(9), Article 543. <https://doi.org/10.3390/educsci11090543>
- García-Martínez, I., Montenegro-Rueda, M., Molina-Fernández, E., & Fernández-Batanero, J. M. (2021). Mapping teacher collaboration for school success. *School Effectiveness and School Improvement*, 32(4), 631-649. <https://doi.org/10.1080/09243453.2021.1925700>
- García-Martínez, I., Tadeu, P., Montenegro-Rueda, M., & Fernández-Batanero, J. M. (2022). Networking for online teacher collaboration. *Interactive Learning Environments*, 30(9), 1736-1750. <https://doi.org/10.1080/10494820.2020.1764057>
- Guo, S., Sun, T., Gong, J., Lu, Z., Zhang, L., & Wang, Q. (2022). Remote co-teaching in rural classroom: Current practices, impacts, and challenges. *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems*, Article 247. <https://doi.org/10.1145/3491102.3501924>
- Hajar, A., & Manan, S. A. (2022). Emergency remote English language teaching and learning: Voices of primary school students and teachers in Kazakhstan. *Review of Education*, 10(2), Article e3358. <https://doi.org/10.1002/rev3.3358>
- Hardiah, S. (2020). Digital collaboration in teaching and learning activities: The reflexivity study on educational digital empowerment. *International Journal of Learning, Teaching and Educational Research*, 19(10), 355-370. <https://doi.org/10.26803/ijlter.19.10.20>

- Hargreaves, A., & O'Connor, M. T. (2017). Cultures of professional collaboration: Their origins and opponents. *Journal of Professional Capital and Community*, 2(2), 74-85. <https://doi.org/10.1108/JPCC-02-2017-0004>
- Hilli, C. (2020). Extending classrooms through teacher collaboration in virtual learning environments. *Educational Action Research*, 28(4), 700-715. <https://doi.org/10.1080/09650792.2019.1654901>
- Hoeh, E., Bonati, M. L., Chatlos, S., Squires, M., & Counterline, B. (2023). Stop, collaborate, and listen: A faculty learning community developed to address gaps in pre-service education about interdisciplinary collaboration. *International Journal for the Scholarship of Teaching and Learning*, 17(1), Article 25. <https://doi.org/10.20429/ijstol.2023.17125>
- Hrastinski, S. (2021). Digital tools to support teacher professional development in lesson studies: A systematic literature review. *International Journal for Lesson & Learning Studies*, 10(2), 138-149. <https://doi.org/10.1108/IJLLS-09-2020-0062>
- Hur, J. W., Shen, Y. W., & Cho, M.-H. (2020). Impact of intercultural online collaboration project for pre-service teachers. *Technology, Pedagogy and Education*, 29(1), 1-17. <https://doi.org/10.1080/1475939X.2020.1716841>
- Jin, F., Song, Z., Cheung, W. M., Lin, C., & Liu, T. (2023). Technological affordances in teachers' online professional learning communities: A systematic review. *Journal of Computer Assisted Learning*, 40(3), 1019-1039. <https://doi.org/10.1111/jcal.12935>
- Jones-Goods, K. M. (2018). A phenomenological study of teacher collaboration using a professional learning community model. *Journal of Research Initiatives*, 3(3), Article 10.
- Kolleck, N. (2019). Motivational aspects of teacher collaboration. *Frontiers in Education*, 4, Article 122. <https://doi.org/10.3389/educ.2019.00122>
- Koutsouris, G., Norwich, B., Fujita, T., Ralph, T., Adlam, A., & Milton, F. (2017). Piloting a dispersed and inter-professional lesson study using technology to link team members at a distance. *Technology, Pedagogy and Education*, 26(5), 587-599. <https://doi.org/10.1080/1475939X.2017.1364290>
- Lee, T., Pham, K., Crosby, A., & Peterson, J. F. (2021). Digital collaboration in design education: How online collaborative software changes the practices and places of learning. *Pedagogy, Culture & Society*, 29(2), 231-245. <https://doi.org/10.1080/14681366.2020.1714700>
- Liljekvist, Y. E., Randahl, A.-C., van Bommel, J., & Olin-Scheller, C. (2021). Facebook for professional development: Pedagogical content knowledge in the centre of teachers' online communities. *Scandinavian Journal of Educational Research*, 65(5), 723-735. <https://doi.org/10.1080/00313831.2020.1754900>
- Little, J. W. (1990). The persistence of privacy: Autonomy and initiative in teachers' professional relations. *Teachers College Record*, 91(4), 509-536. <https://doi.org/10.1177/016146819009100403>
- Lockton, M. (2019). Chasing joint work: Administrators' efforts to structure teacher collaboration. *School Leadership & Management*, 39(5), 496-518. <https://doi.org/10.1080/13632434.2018.1564269>
- Maican, C. I., Cazan, A.-M., Lixandriou, R. C., & Dovleac, L. (2019). A study on academic staff personality and technology acceptance: The case of communication and collaboration applications. *Computers & Education*, 128, 113-131. <https://doi.org/10.1016/j.compedu.2018.09.010>
- Manca, S., & Ranieri, M. (2016). Facebook and the others. Potentials and obstacles of social media for teaching in higher education. *Computers & Education*, 95, 216-230. <https://doi.org/10.1016/j.compedu.2016.01.012>

- Methlagl, M. (2022). Patterns of teacher collaboration, professional development and teaching practices: A multiple correspondence analysis of TALIS 2018. *International Journal of Educational Research Open*, 3, Article 100137. <https://doi.org/10.1016/j.ijedro.2022.100137>
- Nguyen, N., Collins, L., & Ngo, P. (2023). Effective teacher collaboration to enhance online teaching pedagogy for ELICOS teachers. *English Australia Journal*, 39(1), 5-23.
- Nicholas, M., Rouse, E., & Garner, R. (2023). Cross-sector collaborations via Facebook: Teachers' use of social media. *Australian Educational Researcher*, 51(2), 757-779. <https://doi.org/10.1007/s13384-023-00622-y>
- Nistor, C. M. (2016). Educational challenges: using new tools in collaborative teaching. *Proceedings of the eLearning and Software for Education*, 12(2), 154-158. Carol I National Defence University Publishing House. <https://doi.org/10.12753/2066-026X-16-107>
- Nugrohowati, R. N. I., Fakhrunnas, F., & Haron, R. (2020). Examining technological and productivity change in the Islamic banking industry. *Pertanika Journal of Social Sciences and Humanities*, 28(4), 3355-3374. <https://doi.org/10.47836/pjssh.28.4.47>
- Onwuegbuzie, A. J. (2016). *Seven steps to a comprehensive literature review: A multimodal and cultural approach*. SAGE Publishing.
- Onwuegbuzie, A. J., Leech, N. L., & Collins, K. M. T. (2012). Qualitative analysis techniques for the review of the literature. *Qualitative Report*, 17(28), 1-28. <https://doi.org/10.46743/2160-3715/2012.1754>
- Özbilen, F. M., & Çekiç, O. (2022). Teachers' perceived social capital in schools and their attitudes toward professional collaboration. *Journal of Educational Leadership and Policy Studies*, 6(1), n1.
- Reeves, P. M., Pun, W. H., & Chung, K. S. (2017). Influence of teacher collaboration on job satisfaction and student achievement. *Teaching and Teacher Education*, 67, 227-236. <https://doi.org/10.1016/j.tate.2017.06.016>
- Richter, E., Carpenter, J. P., Meyer, A., & Richter, D. (2022). Instagram as a platform for teacher collaboration and digital social support. *Computers & Education*, 190, Article 104624. <https://doi.org/10.1016/j.compedu.2022.104624>
- Şahin, İ. (2023). Teacher collaboration in ELT research: A systematic review. *Melius: Journal of Narrative and Language Studies*, 1(1), 58-90.
- Shah, M. A., Hussain, M., & Jabbar, A. (2022). Applications of information communication technology in education. *Journal of Computing & Biomedical Informatics*, 4(1), 87-91. <https://doi.org/10.56979/401/2022/109>
- Singh, H., Cascini, G., & McComb, C. (2021). Comparing virtual and face-to-face team collaboration: Insights from an agent-based simulation. *Proceedings of the ASME 2021 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference*, 6: 33rd International Conference on Design Theory and Methodology (DTM), V006T06A022. <https://doi.org/10.1115/DETC2021-66043>
- Tazhibayeva, E. R., & Dolidze, T. (2021). Gains of e-collaboration in professional engagement initiatives. *Bulletin of the Karaganda University Pedagogy Series*, 102(2), 78-84. <https://doi.org/10.31489/2021Ped2/78-83>
- Toronto, C. E., & Remington, R. (2020). *A step-by-step guide to conducting an integrative review*. Springer International Publishing. <https://doi.org/10.1007/978-3-030-37504-1>
- Vangrieken, K., Dochy, F., Raes, E., & Kyndt, E. (2015). Teacher collaboration: A systematic review. *Educational Research Review*, 15, 17-40. <https://doi.org/10.1016/j.edurev.2015.04.002>

- Weddle, H. (2022). Approaches to studying teacher collaboration for instructional improvement: A review of literature. *Educational Research Review*, 35, Article 100415. <https://doi.org/10.1016/j.edurev.2021.100415>
- Yilmaz, K. (2022). Teachers' professional collaboration: Current status, barriers and suggestions. *Ankara University Journal of Faculty of Educational Sciences*, 55(3), 1023-1043. <https://doi.org/10.30964/auebfd.1143251>

*Review Article*

## **Infertility Disclosures Among Women, Men and Couples: A Systematic Literature Review**

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### **ABSTRACT**

This review paper examines the disclosure of decision-making and coping mechanisms among women, men, and couples dealing with infertility. The PRISMA review method analyzes 13 articles published between 2000 and 2021. Five themes are identified: openness, topic, social support level, confrontation, and avoidance. Additionally, the paper integrates social exchange theory to understand better the dynamics of disclosure and support exchange among those navigating infertility. The study recommends the need for more research on men, acknowledging their often marginalized role and the difficulties they face in discussing infertility. The review concludes that coping strategies are crucial in combating the social stigma associated with infertility.

*Keywords:* Childless, couples, disclosures, infertility, information sharing, men, women

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### **INTRODUCTION**

Infertility, a non-visible illness affecting the male or female reproductive system, is defined as the inability to achieve pregnancy after 12 months of unprotected intercourse, often requiring medical intervention (American Society for Reproductive Medicine, 2023). Globally, about 17% of individuals face infertility, affecting all socioeconomic groups (Harris, 2023; Teh

et al., 2023). It impacts both genders, with male infertility being the sole cause in 20% of cases and contributing to 30%–40% of cases (Agarwal et al., 2010; Leslie et al., 2023; Raheem et al., 2019). Primary infertility involves those who have never conceived, while secondary infertility refers to difficulty conceiving after a prior pregnancy (Sormunen et al., 2018; Sun et al., 2019).

Although there is extensive research on the medical aspects of infertility (e.g., Azizbek, 2024; Kaltsas et al., 2023; Le et al., 2024; Singh et al., 2024), it remains a sensitive and stigmatized topic, with many individuals hesitant to disclose their struggles. Women are more likely than men to discuss infertility, though it affects both (Steuber & Solomon, 2011). Disclosure can be therapeutic but also challenging due to stigma (Warrender, 2020). Limited research exists on gender differences in infertility self-disclosure and coping strategies. This study seeks to fill these gaps by exploring these communication dynamics among women, men, and couples facing infertility.

### **Conceptualization of Self-disclosure**

Self-disclosure is crucial for building, maintaining, and ending therapeutic relationships (Ashmore & Banks, 2002). However, it is important to consider various factors such as privacy, trust, and the potential negative consequences if the disclosed information falls into the wrong hands. Conversely, privacy involves controlling and managing disclosures (Derlega & Chaikin, 1977). Social media provides a platform for individuals to share

their experiences of distress and stigma anonymously (Andalibi, 2020). However, online disclosure can differ from in-person disclosure. Although some aspects of online communication, such as anonymity and reduced information richness, can promote self-disclosure, other features, such as asynchronicity, multiple audiences, and audience feedback, may support self-presentation (Schlosser, 2020).

Infertility can be an extremely stressful challenge for couples who are trying to conceive. In addition to the emotional impact, infertility also creates privacy dilemmas. Sharing disappointing news with others can be difficult (Andalibi, 2020; Sormunen et al., 2018). It is crucial to have good-quality communication between couples to cope well with chronic illnesses and infertility issues (Badr & Acitelli, 2017; Hawkey et al., 2021; Pasch & Sullivan, 2017). Couples and individuals do need coping strategies to support each other while trying to conceive and manage stress. However, many individuals are still suffering in silence for not being able to cope well emotionally as well as socially.

Kiełek-Rataj et al. (2020) conducted a study that investigated the impact of openness and communication on the satisfaction of women who have experienced infertility and miscarriage. By taking a dyadic approach, the study found that high-quality communication is essential in fostering a satisfactory relationship, a conclusion reinforced by Hawkey et al. (2021). Kiełek-Rataj et al. (2020) underscores the crucial role that positive and constructive communication plays in



fostering relationship satisfaction, with openness emerging as a key factor in determining the level of contentment shared between partners. As discussions related to infertility are shared between both partners, it is important for couples to cultivate mutual support and respect (Chelliah et al., 2023). This may involve establishing clear guidelines to prevent any potential boundary issues. Sadly, infertility is often shrouded in stigma and viewed as a taboo topic, causing many couples to avoid discussing it candidly.

In Uganda, infertility is often linked to marital difficulties for women, and it can lead to divorce. This makes infertility a complex global challenge with medical, sociocultural, and economic implications, often associated with gender-based hardship. It can also be considered a punishment for social transgressions, such as not having the bride price distributed among one's parents' relatives. Infertility is a valid reason for divorce in various cultures, and barrenness is seen as a personal tragedy and a source of humiliation (Obeagu et al., 2023).

Similarly, infertility is also a sensitive and taboo topic to discuss openly in Malaysia. Many married women who are unable to conceive are treated poorly, looked down upon, and even faced the possibility of divorce from their husbands (Ang & Lai, 2023). As a result, these women often suffer in silence. However, some women and couples have found solace in seeking help from online support groups and communities, where anonymity helps to protect their identity and allows them to share their experiences without

fear of exposure. This anonymity feature has proven helpful for affected individuals to disclose their issues and seek support (Chiew & Mohd Jan, 2018).

Without a doubt, digital communication is the preferred mode of communication for many individuals who are experiencing challenges with infertility. Building a robust social support system is crucial to navigating the difficulties associated with this condition. This necessitates establishing effective communication channels that facilitate the exchange of information and emotional support among individuals facing similar challenges (Montgomery et al., 2023). Their study found that IVF patients revealed that individuals are more likely to disclose personal information if the recipient reciprocates with a mutual understanding of engagement. Yet, interestingly, patients tend to avoid sharing information during the waiting period following embryo transfer.

### **The Rationale of the Study**

Extensive research has been conducted in medical science on infertility (Azizbek, 2024; Le et al., 2024; Singh et al., 2024), but this review paper aims to focus on the communication aspect of infertility, specifically on how individuals and couples disclose and cope with their struggles. According to the empirical findings, more women tend to participate in online support groups than men (Chiew & Mohd Jan, 2018; Klaus et al., 2023; Mo et al., 2009). In general, men are often perceived as self-sufficient and rational, while women are seen as weaker and more dependent on emotional support. Due to societal expectations, men

may be considered weak if they ask for help. Non-disclosure is partially due to self-preservation, not wanting their ego to be challenged, and avoiding social pressure.

It is imperative to investigate and comprehend the disclosure of gender among individuals and couples experiencing infertility issues. Researchers hope to provide a platform that enables individuals with infertility to share their experiences, solicit advice, and support one another. Through leveraging digital communication tools, individuals can connect with peers by encountering similar experiences, fostering a sense of community and mitigating the isolation often associated with infertility. The role of digital communication in supporting individuals experiencing infertility cannot be overstated. Individuals can access the resources and support to navigate this challenging period by creating a supportive environment that advocates open communication.

This paper incorporates Social Exchange Theory to understand the disclosure and support exchange dynamics among women, men, and couples dealing with infertility. The relationship between infertility disclosures and social exchange theory (SET) highlights how individuals navigate social challenges. SET posits that social behavior involves weighing benefits and costs. Disclosing infertility is influenced by perceived support, stigma, and emotional well-being. Those who disclose often gain resilience and acceptance through emotional support, reducing isolation and increasing social support (Malina, 2023). Open communication about infertility

can improve relationship satisfaction and emotional support. Applying SET offers insights into how emotional support, stigma, and relational dynamics interact, helping individuals better cope with infertility. Previous research has underscored the imperative to explore the perspectives of men concerning infertility (e.g., Malik & Coulson, 2008b; Klaus et al. (2023); Pinzon and Rotoli (2023)). Most of these empirical studies have primarily centered on women's encounters with disclosure (Bute, 2009, 2013; Bute & Vik, 2010; Remennick, 2000; Sormunen et al., 2018). Although infertility is generally considered a shared challenge for couples, the majority of research has ignored men's infertility issues. It is crucial to conduct a comprehensive review that examines the challenges of disclosure for both genders to provide more effective counseling and support for couples who are struggling with infertility. Given the existing gap in the scholarly discourse regarding male perspectives on infertility, this study aims to offer a comprehensive examination drawn from diverse community contexts. The intended outcome is to furnish insights that facilitate enhanced understanding and support from family and social circles for individuals navigating the complexities of infertility. With that, we asked two questions:

1. How do women, men, and couples disclose their infertility challenges to others?
2. What coping strategies do women, men, and couples use when dealing with infertility challenges?

**METHODS**

To minimize potential biases and ensure transparency, the review process adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework (Moher et al., 2009). This framework has shown several benefits. Firstly, the framework allows for a clear definition of research questions. Secondly, it offers accurate screening metrics that specify the criteria for inclusion and exclusion.

Thirdly, it can examine large scientific literature databases within a specific time frame (Sierra-Correa & Kintz, 2015). It is observed that PRISMA permits a rigorous search for scientific research and has coded information relevant to infertility disclosures among women, men, and couples. Figure 1 illustrates the complete retrieval process used. Four basic steps were applied in this systematic reviewing process: identification, screening, eligibility, and inclusion.

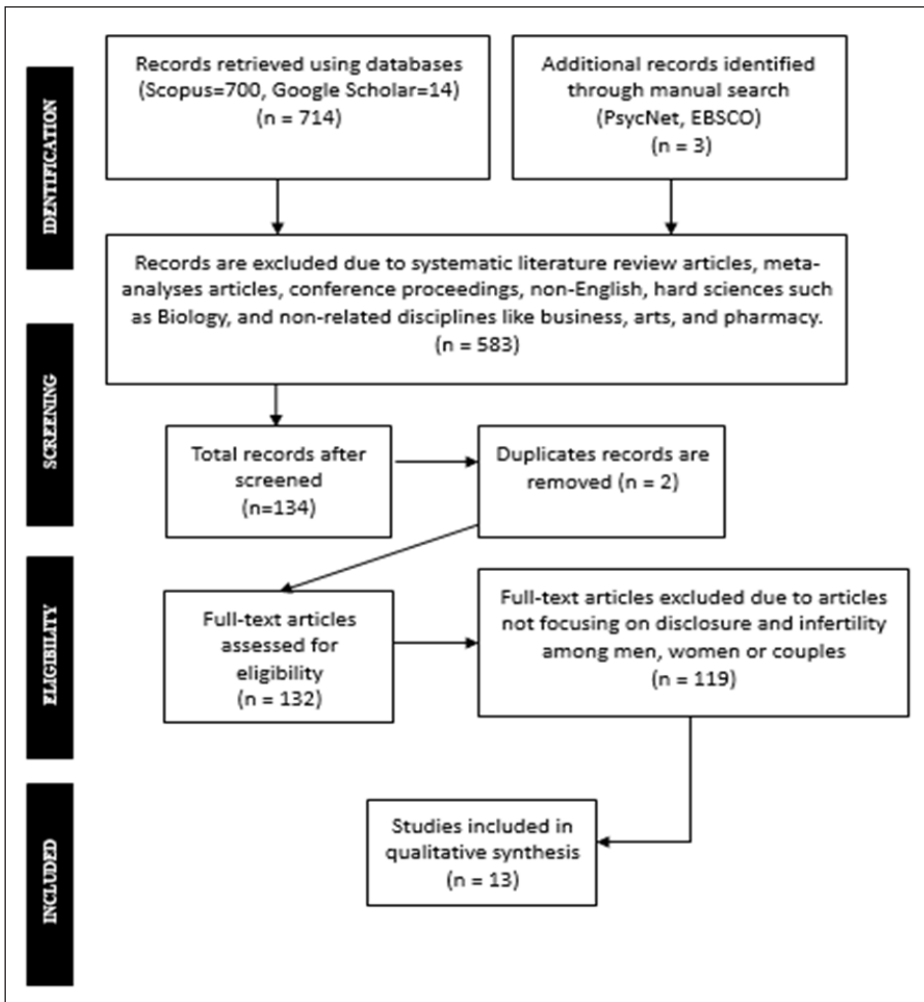


Figure 1. Flow diagram of this review study. Source: Adapted from Moher et al. (2009)

### Search Strategy

Firstly, the researchers conducted a thorough literature search using two electronic databases: *Scopus* and *Google Scholar*. The search strategy used Boolean logic and combined relevant search terms such as “disclosure” and “infertility” and search strings to identify relevant articles for this study (Table 1). Although *Scopus* requires a subscription, it covers many literature types and subject areas. On the other hand, *Google Scholar* is free and an open search engine. It covers a vast collection of publishing formats and subject areas.

Table 1  
Search strings to identify relevant articles in this study

Databases	Search strings
Scopus	TITLE-ABS-KEY (["disclosur*" OR "information sharing" OR "confess*" OR "unveil*"] AND [ "barren" OR "infertility" OR "childless" OR "impotence" OR "sterile"])
Google Scholar	allintitle: "disclosure" OR "information sharing" OR "confess" OR "unveil" AND "infertility" OR "childless" OR "barren" OR "impotence" OR "sterile"

Manual searches are mainly used to identify additional primary studies for the literature review. This approach is important to ensure that journal articles are not missed during the primary search (Chapman et al., 2010). In this review, researchers identified three relevant journal articles from two other databases (*PsycInfo* and *EBSCO*). The searches spanned from 2000 to 2023, encompassing the entire database

inception period. We deliberately refrained from imposing a temporal limitation on including papers in our search process. This strategic choice was made to enhance the comprehensiveness of our study.

### Screening and Eligibility

At this stage, all papers meeting the following criteria were eligible for inclusion: Firstly, the timeline was set from 2000 to 2023. Secondly, only full journal articles were selected. Thirdly, only English was chosen to overcome the language barrier and reduce the distortion of meanings caused by translation. Fourthly, the subject area mainly covers social sciences, psychology, arts and humanities, and communication since the researchers are keen to understand infertility disclosures from a communication perspective, not a medical one.

Excluding articles during the systematic review screening is a key step guided by PRISMA principles. This process involves identifying, assessing, and documenting reasons for exclusion while using a PRISMA flowchart. Following these guidelines ensures rigor, transparency, and the integrity of the review. In response, exclusion criteria were established to omit studies that did not meet the study's inclusion criteria (Table 2). Finally, 13 articles were included for coding and analyses after screening and eligibility.

### Data Extraction and Quality Assurance

The researchers have carefully extracted the data that answers the research questions (Shaffril et al., 2019). To minimize errors in data compilation for data analysis later,

at least two researchers do data extraction independently to minimize errors during the data compilation process. This data extraction process comprises three steps Whittemore and Knafl (2005). First, the researchers need to read the articles' titles. Next, researchers have to go through the abstracts. Finally, researchers need to vet the articles thoroughly to determine the data based on the research questions outlined. Researchers have applied thematic analysis approach in this study.

Okoli (2015) highlighted that integrating qualitative and quantitative studies is a key aspect of qualitative synthesis. This study followed an integrative review approach, incorporating qualitative and quantitative research methods. As noted by Dixon-Woods et al. (2005), Hopia et al. (2016), and Whittemore and Knafl (2005), a mixed research design is crucial to gaining a comprehensive understanding of the study from a diverse range of perspectives.

As for quality appraisal, all eligible articles must be appraised to ensure quality. The researchers qualitatively assessed the articles by three categories: low, moderate, and high. Only those articles that have fulfilled the inclusion criteria are considered moderate and high in the category Petticrew and Roberts (2008). Articles excluded based on the criteria were categorized as low in category (Table 2). After reviewing the articles, all 13 articles qualified to rank between moderate and high in categories. Thus, these articles are ready to be reviewed (Table 3).

Table 2  
*Inclusion and exclusion criteria*

Criterion	Included	Excluded
Timeline	2000–2023	<2000 and >2023
Literature type	Journals (research articles)	Books, theses, pre-prints, book chapters, book series
Language	English	Non-English
Subject area	Social sciences, Psychology, Arts & Humanities, and Communication.	Other than Social Sciences, Psychology, Arts & Humanities, and Communication

Table 3  
*Summary of the journal articles reviewed*

No	Year	Title	Authors	Methods	Country
	2000	Childless in the land of imperative motherhood: Stigma and coping among infertile Israeli women	Remennick, L.	Qualitative (26 women)	Israel
	2007	The relationship between perceived stigma, disclosure patterns, support and distress in new attendees at an infertility clinic.	Slade, P. O'Neill, C. Simpson, A. J. Lashen, H.	Quantitative (64 men, 87 women)	United Kingdom
	2008	Computer-mediated infertility support groups: an exploratory study of online experiences	Malik, S. H. Coulson, N. S.	Qualitative (6 men, 89 women)	United Kingdom

Table 3 (continue)

No	Year	Title	Authors	Methods	Country
2008		The male experience of infertility: A thematic analysis of an online infertility support group bulletin board	Malik, S. H. Coulson, N. S.	Qualitative (Total: 166 men and women)	United Kingdom
2009		"Nobody thinks twice about asking": women with a fertility problem and requests for information.	Bute, J. J.	Qualitative (23 women)	United States of America
2010		Privacy management as unfinished business: Shifting boundaries in the context of infertility	Bute, J. J. Vik, T. A.	Qualitative (23 women)	United States of America
2011		Factors that predict married partners' disclosures about infertility to social network members	Steuber, K. R. Solomon, D. H.	Quantitative (50 men, 50 women)	United States of America
2013		Interactive effects of social support and disclosure on fertility-related stress	Martins, M. V. Peterson, B. D. Costa, P. Costa, M. E. Lund, R. Schmidt, L.	Quantitative (334 men, 364 women)	Portugal, the United States of America and Denmark
2012		Relational uncertainty, partner interference, and privacy boundary turbulence: Explaining spousal	Steuber, K. R. Solomon, D. H.	Quantitative (50 men, 50 women)	United States of America
2013		The Discursive Dynamics of Disclosure and Avoidance: Evidence from a Study of Infertility	Bute, J. J.	Qualitative (23 women)	United States of America
2015		Disclosure strategies, social support and quality of life in infertile women	Steuber, K. R. High, A.	Quantitative (301 women)	United States of America
2018		Infertility-related communication and coping strategies among women affected by Primary or secondary infertility	Sormunen, T. Aanesen, A. Fossum, B. Karlgrén, K. Westerbotn, M.	Quantitative (199 women)	Sweden
2021		Talking but not always understanding: Couple communication about infertility concerns after cancer	Hawkey, A. Ussher, J. M. Perz, J. Parton, C.	Qualitative (247 men, 775 women)	Australia

### Data Analysis Approach

In this study, thematic analysis was utilized. The researchers analyzed the data using the qualitative synthesis approach, guided by the research questions. After data extraction, the researchers coded and converted the raw

data into meaningful data by identifying codes, categories, subthemes, and themes.

During this process, the researchers also used peer review of coding to ensure that themes were developed well with minimal bias. While going through the data's content,

the researchers summarized similar patterns or disparities and recurring themes in a table that were related to infertility disclosures and coping strategies among women, men, and couples.

## RESULTS

Our search across the three specified electronic databases identified an initial set of 717 studies, all published between 2000 and 2021. After eliminating duplicate entries, a refined total of 715 studies remained for a more thorough analysis. Consequently, 132 articles underwent a comprehensive full-text review. Among these, 119 were ultimately excluded, leaving us with 13 studies that met our inclusion criteria and were consequently included in the final analysis (Figure 1).

Out of the initial 717 articles identified, 13 journal articles met the inclusion criteria based on the PRISMA framework. The studies included 751 men, 2010 women, and 166 couples. The review comprised six cross-sectional studies and seven in-depth interviews based on the database.

The review aims to answer two research questions:

1. How do women, men, and couples disclose their infertility challenges to others?
2. What coping strategies do women, men, and couples use when dealing with infertility challenges?

Three themes for research question 1 were identified: Openness, topics, and level of social support.

## Disclosure of Infertility Challenges Among Women, Men, and Couples

Various factors, including demographic roles, influence the disclosure of personal information. For women who are experiencing infertility, societal impact plays a crucial role in their decision to disclose. It has been observed that disclosure patterns among those who support parenthood and resist social stigma differ from those who question the importance of motherhood and view it as a mandate. Typically, individuals who hold professional careers, are well-educated, and value familial aspirations are more likely to uphold the idea of motherhood as a necessity (Remennick, 2000). Table 4 summarizes how women, men, and couples disclose their infertility challenges to others.

### *Openness*

Women tend to share certain information only with specific people in their lives. When it comes to infertility, they usually confide in close friends and family members. However, the treatment details are typically only shared with their spouse, partner, or immediate family members. Women who have primary infertility may be more likely to share their struggles with family members openly.

In contrast, those experiencing secondary infertility may be less likely to discuss these issues with others (Sormunen et al., 2018). Infertility is a topic that is usually more commonly discussed among women than men, particularly wives.

Table 4

*Summary of themes for disclosures among women, men and couples*

Disclosures	Women	Men	Couple
Openness	Selective disclosures. Higher stigma, lower disclosure. Higher disclosures might lead to higher distress related to infertility.  Women tend to seek social support from friends and family. Anonymity helps with disclosures, especially on digital platforms.	Very little disclosure when perceived stigma is higher.  Men perceive infertility as a threat to their masculinity and tend to avoid it due to societal expectations.  Disclosures should be made within the marital dyad.	Very little disclosure when perceived stigma is higher.  They are willing to disclose information within the support group within the boundaries they have agreed upon.  Disclosures should be made within the marital dyad.
Topic	Types of treatment, Challenges in infertility, selective topics related to knowledge, feelings, and concerns.  The focus is primarily on sharing experiences, emphasizing feelings and emotions.	Health concerns, Health issues about infertility.  The topics are typically informative and factual in nature.	Treatment plans, treatment outcomes, emotional responses to infertility, long-term treatment perspectives, and marital issues related to infertility.
Level of Social Support	The direct approach garners higher quality support than the entrapment or indirect approach.	Men disclose less due to the perceived higher stigma, often exacerbated by a lack of support networks and resources.	The more stigma there is, the less likely people are to disclose; as a result, they will receive less social support and experience higher levels of stress.

Women tend to confide in their female friends about their infertility issues, whereas their husbands are less likely to discuss them with their social circle. It is advisable to keep these issues within the marriage and not share them with family or friends (Mahlstedt, 1985; Slade et al., 2007; Steuber & Solomon, 2012).

According to Slade et al. (2007), it has been observed that women tend to feel more distressed due to infertility and are more likely to talk about it openly than men. Men, on the other hand, are less likely to talk about it due to the stigma attached to

the issue. When there is a higher perception of stigma, couples are less likely to open up about their struggles. Furthermore, women face a higher risk of being stigmatized due to the societal belief that motherhood is a central aspect of female identity (Mahlstedt, 1985).

Cultural factors significantly influence stigma and taboo, shaping perceived risks and benefits (Cogan et al., 2024; Swami et al., 2022). Western societies encourage openness, with free speech instilled from an early age. In contrast, Eastern collectivist societies often display more hesitancy in



sharing thoughts or opinions, especially when compared to the individualistic norms of the West (Yates & de Oliveira, 2016). This pattern is also evident in communities with strong pro-natalist views (Remennick, 2000).

### **Topics**

Often, women facing infertility struggle with managing their private information, choosing between concealment and disclosure. Bute (2013) and Bute and Vik (2010) have highlighted various approaches to initiating a conversation about infertility. These include the discloser starting the conversation, sharing common problems, and responding to requests for additional information. Depending on the method used, conversation can lead to different outcomes. However, women may have particular topics that they feel comfortable discussing. While some women find it helpful to share their experiences and provide support to others, others may feel burdened by the responsibility of educating others about fertility issues.

Men generally focus on disclosure to gather information rather than share experiences (Malik & Coulson, 2008b). Men are naturally reticent when disclosing health concerns with others. To most men, infertility is reckoning to “we-disease,” in which they should be managing the boundaries within the dyad marital context (Hawkey et al., 2021). Couples usually seek help in topics related to treatment plans, treatment outcomes, emotional responses to infertility, long-term treatment

perspectives, and marital issues related to infertility (Steuber & Solomon, 2012). Couples are encouraged to discuss and explicitly voice their concerns and privacy expectations to avoid potential feelings of betrayal related to information management. This can help overcome any boundary turbulence.

### **Level of Social Support**

Women who openly communicate their infertility struggles on social networks usually receive better quality support and experience and an overall improved quality of life compared to those who use indirect or entrapment tactics (Steuber & High, 2015).

Generally, men feel that the higher the stigma is perceived, the lower the disclosures occur. Thus, the lower the social support will be, the higher the level of stress obtained for those who are suffering from infertility. Infertility issues can be perceived as a shared challenge by couples. Those who openly discuss their struggles with others tend to experience less social stress. Nevertheless, it is common for couples to only share their infertility challenges with close family and friends (Martins et al., 2013). Slade et al. (2007) posited that stigma and disclosures play a vicious cycle.

### **Coping Strategies**

Coping strategies refer to individuals' conscious and unconscious efforts to manage stress, overcome adversity, or deal with challenging moments (Aren & Hamamci, 2024; Balconi et al., 2017; Kramer, 2010).

Coping strategies are especially important for those who are suffering in silence on the journey of infertility.

According to Grunberg et al. (2023), many patients are actively yearning to learn from other people's lived experiences to cope well in this journey of infertility. In this review paper, researchers have identified two themes in answering research question 2: (1) confrontation and (2) avoidance to understand the disclosure coping strategies used among women, men, and couples when dealing with infertility challenges.

Confrontation is a core element of interpersonal skills. People are afraid of confronting and being confronted. Confrontation includes both the attitudes and behavior of the communicator in the community, be it in the form of a dyad or the larger group. Confrontation has many benefits if it is executed with care and concern. Yet, it also induces dissonance. Dissonance may put one person in an uncomfortable state. As such, he or she may react defensively to confrontation (Egan, 1976).

Confrontation and dissonance are a natural part of any healthy relationship. By engaging in open and honest communication, we can better understand the other person and strengthen our connection, ultimately leading to a more profound relationship.

The present study has identified self-disclosure avoidance as a common coping strategy among individuals. The avoidance of self-disclosure occurs for various reasons, which remain undisclosed. Rosenfeld

(1979) posits that both genders experience apprehension in self-disclosure. However, their reasons for apprehension may differ. Men avoid disclosing information to maintain control over their relationships, while some women choose to remain silent to prevent personal hurt and problems with their interpersonal relationships. Men's reluctance to disclose information stems from a fear of being judged, as not everyone may comprehend their point of view. Most men refuse to disclose such information to exercise control over their relationships with others. They do not wish to be viewed as inconsistent, having to make changes later on for what they revealed earlier.

According to Sormunen et al. (2018), three coping strategies are available: active confronting, passive avoidance, and active avoidance. Active-confronting strategies are more frequently used than other coping strategies. It includes talking to others about the emotional effects of treatments they have undergone. However, the use of these strategies depends on the level of education, cultural expectations, and feelings of powerlessness, low self-esteem, and isolation, which may lead to the practice of passive avoidance.

Effective communication is crucial for building healthy relationships, and self-disclosure is key. However, disclosing personal information is ultimately up to individuals or couples. In this paper, we identified how individuals and couples cope with self-disclosure while navigating the challenges of infertility (Table 5).

Table 5  
*Summary of themes for coping strategies among women, men and couples*

Coping Strategies	Women	Men	Couple
Confrontation	Direct humor approach Active confronting (Venting out) via social media. Anonymity helps.	Asking for informational support	Manage privacy boundaries via interdependence between spouses or partners, a mutual form of constructive communication.  Seeking help from support groups and infertility educational group interventions.
Avoidance	Distraction technique Resistance approach (defensive thinking)	Reserved and Reticent in disclosures, except with their wives or partners (dyadic approach)	Avoid withholding treatment, such as self-silence.

**Confrontation**

Individuals who communicate effectively are often fearless in advocating for their beliefs. They are unafraid of influencing those around them and are typically proactive and confident in their expressions. They are usually transparent and truthful in sharing their personal experiences in the hopes of assisting and motivating others who find themselves in similar situations. Nevertheless, the core aspect here is the idea of reciprocity.

Men and women have different ways of dealing with emotional distress. Women tend to be more emotional and expressive, while men tend to be more rational and information-focused. Infertility, in particular, can be a source of psychological distress and strain for both men and women. Women feel more distress over infertility strain, anxiety, and depression as compared

to men. They tend to be more open about their struggles, particularly when feeling anxious, depressed, or overwhelmed (Slade et al., 2007). According to Malik and Coulson (2008b), men express their hopes and aspirations, but they are also afraid of disappointments.

Another technique is humor, which is used to connect with others to alleviate stress. Some women seek social support or vent their feelings (Bute, 2009). Anonymity is an interesting point to consider in online support groups. Women feel safer and more protected when they can remain anonymous. This allows for open and honest communication, which is more prevalent in the groups (Malik & Coulson, 2008a). For cancer survivors dealing with infertility issues, open and honest communication between partners is essential to understand each other better (Hawkey et al., 2021).

According to Martins et al. (2013), support groups and educational interventions focused on infertility can effectively reduce related stress. Maintaining privacy boundaries when discussing sensitive topics like treatment plans, emotional responses, long-term perspectives, and marital issues is crucial and requires interdependence (Steuber & Solomon, 2012).

Constructive communication is also essential for couples dealing with infertility, including openness, honesty, listening, and sharing. Withholding treatment, such as keeping silent or fearing separation, can only lead to misunderstandings (Hawkey et al., 2021). Receiving knowledge, understanding, and empathy are a source of comfort for some women, mainly through online support groups. Rather than burdening their husbands or partners with their decisions, they find solace in sharing their feelings and concerns with others going through similar experiences. These support groups provide a sense of community and help prevent social isolation (Malik & Coulson, 2008b).

### *Avoidance*

Many women who experience both active and passive avoidance tend to keep their emotions hidden. They often try to substitute activities as a form of distraction and look for other life goals to fill the void of infertility. Compared to women who have secondary infertility, those who experience primary infertility are more likely to experience distress. The advent of social media has provided a new platform for infertile women to share their experiences and connect

with others who have gone through similar situations. Through this platform, they can learn about different treatments that can help overcome their infertility issues. According to Kahlor and Mackert (2009), infertile women tend to seek out fertility-related information online.

Women use various coping strategies to avoid dealing with infertility. One of them is distraction, where they keep themselves busy with work and avoid discussions related to children. However, many women tend to avoid disclosing their infertility status and hide it from others. In a pro-natalist society, coping strategies may seem more relevant than resistance approaches. Some women use defensive thinking, strategic avoidance, and courtesy stigma to protect their partners from being exposed to male infertility. They aim to save their partners from humiliation and discrediting (Remennick, 2000).

Steuber and Solomon (2011) state that husbands have higher privacy boundaries than their wives. Men tend to rely solely on their wives as their source of social support, while women often seek support from their family and friends. Although couples may have different approaches to coping with challenges, it is important for them to discuss and express their privacy expectations to avoid any potential feelings of betrayal or embarrassment in the future.

Men tend to be less open about their issues as compared to women. Many of them seek emotional and informational support from online message boards. However, some men question the accuracy of the information provided on these platforms

(Malik & Coulson, 2010). According to Hawkey et al. (2021), men are usually reserved and hesitant to discuss their health concerns, particularly infertility issues, with others. Men view infertility as a problem that affects both partners. Therefore, they rely on their wives or partners as a source of support.

## DISCUSSION

After reviewing 13 journal articles, it was found that six articles followed a quantitative approach while the other seven adopted a qualitative approach. The research methods used were quite evenly distributed. Regarding the origin of the papers, six out of thirteen articles were produced in the United States of America, three in the United Kingdom, and one each from Israel, Denmark, Sweden, and Australia. The publications revealed that countries that adopt individualism tend to have more open disclosures than countries that practice collectivism based on Hofstede's Cultural Dimensions.

Cultural contexts shape how infertility is approached, with collectivist societies leaning towards secrecy due to stigma, while individualist cultures encourage open discussion and support. In collectivist settings, where group harmony and family reputation are key, disclosing infertility is often avoided to prevent shame. In Pakistan, for example, infertility may be seen as a failure to meet social expectations, leading couples to conceal their struggles to preserve family honor (Husain & Imran, 2020; Mumtaz et al., 2013). Similarly,

Israel promotes pronatalism (Remennick, 2000). In contrast, women in individualistic cultures like Sweden and the U.S. express a broader range of emotions and receive more social support (Magbri et al., 2018; Steuber & Solomon, 2011).

Out of the 13 reviewed papers, six focused explicitly on women's disclosure and infertility, while the remaining seven centered on couples or mixed genders. Only one paper was found that focused on men's disclosure and infertility, but the responses obtained were from mixed genders. Therefore, it was discovered that research on men's disclosure and infertility is scarce, and this is an evident research gap. Based on the papers reviewed from the year 2000 to the year 2021, it is clear that the majority of empirical studies focus mainly on women about disclosure and infertility. Most of the research carried out was primarily exploratory in the first decade, from 2000-2010. From the year 2011 onwards, more empirical studies began to focus on quantitative research.

Based on the trend analysis, it has been observed that there was more interest among researchers in studying the "disclosure of infertility" in the early 2000s compared to now. During that time, there were also more citations on the topic. The decline in the study of infertility could be attributed to different priorities among couples, the varied lifestyles of today's communities, and challenging circumstances that cause infertility, such as endometriosis and cancer, as compared to the heterogeneous couples who are trying to start their families

(Howard, 2023; Medenica et al., 2022; Tomassetti & D'Hooghe, 2018).

Over the last three decades, there has been a notable decrease in the fertility rate, dropping from 4.9 children per woman to 1.9. This decline can be attributed to various factors, one of which includes lifestyle changes, such as the growing number of individuals identifying as part of the LGBT community (Corrigan et al., 2013; Grafsky, 2018). To avoid social repercussions, these adults are uncomfortable disclosing and choose to prioritize their sexual identity over addressing reproductive health concerns. Nevertheless, certain researchers suggest that there are additional non-visible factors that may cause infertility, such as Endometriosis, Adenomyosis, cancer, and cystic fibrosis (Grafsky, 2018; Tomassetti & D'Hooghe, 2018; Werner et al., 2019). Patients suffering from these illnesses often experience significant emotional distress, prompting them to avoid discussing infertility issues. It is important to consider these factors to gain a more comprehensive understanding of the declining fertility rates.

Empirical studies have shown that infertility is more prevalent among women, but this could be due to men being reluctant to disclose their infertility issues. Therefore, it is essential to prioritize the review of this paper on disclosures and infertility, as male infertility has been increasing over the past two decades (Eisenberg et al., 2023; Leslie et al., 2023; Raheem et al., 2019).

It has been reported that in Malaysia, the fertility rate has decreased by 15% among men aged 30 and below. Surprisingly, a significant majority, 95% of sexually active

men, are not aware of their infertility issues. To address this problem, the director general of the National Population and Family Development Board (LPPKN), Abdul Shukur Abdullah, has made it mandatory for couples to attend clinics together. This measure aims to reduce resistance among husbands. Recent statistics show that from 2010 to 2019, male fertility issues accounted for 75% of the cases of Assisted Reproductive Technology (ART). Therefore, it is crucial to take appropriate measures to prevent a declining population in the future (Bernama, 2020).

Men are often portrayed as rational and decisive beings who know exactly what they are looking for, especially when they need to find information to address their problems. Therefore, it is crucial to have more online support groups that cater specifically to men's needs, providing them with the necessary information and support.

It has been observed that men, women, and couples have different perspectives and expectations when it comes to infertility challenges. Men consider infertility as a shared problem between partners and tend to seek solutions through informational support. However, men tend to disclose less about their infertility issues, which leads to lower social support and increased stress levels. Selective disclosures to trustworthy individuals can be an effective way to seek and gain social support, especially for women who may benefit from the shared experiences of others in similar situations.

Denying or withholding disclosures can increase the stress of the infertility

journey. Couples lacking social support and understanding might find online support groups helpful, where anonymity is allowed. This enables them to share and disclose freely without fear of exposing their identity and receive informational and emotional support. While some patients found anonymity helpful for preserving their self-identity and sharing with peace of mind, others preferred full self-disclosure without anonymity. Many of their infertile respondents shared this preference (Knoll & Bronstein, 2014). It was found that the more anonymous bloggers get, the more they worry about their blogs being read by people they know offline.

The impact of infertility can vary between men and women. Typically, men seek factual information, while women seek emotional support. It is essential to recognize these gender-specific needs and offer appropriate support. Incorporating references and citations that back up the information shared is encouraged to enhance the reliability of online support and the accuracy of the information presented.

### **Practical Implications**

This research highlights the challenges women, men, and couples face when disclosing infertility, offering healthcare professionals key insights into its emotional toll. It underscores the importance of counseling as a crucial step in helping individuals share their experiences and lighten their emotional burdens. Social Exchange Theory (SET) provides a useful framework for understanding interactions

between healthcare practitioners and those dealing with infertility, as individuals seek relationships that maximize benefits and minimize drawbacks (Thompson & Brindley, 2020). Encouraging open discussions about infertility fosters a supportive environment that promotes resilience and emotional well-being (Klaus et al., 2023; Malina, 2023).

Sharing personal struggles can lead to emotional and social benefits, as well as greater access to resources and information. This exchange strengthens social bonds and enhances coping strategies, ultimately improving health outcomes for individuals and couples facing infertility. For healthcare practitioners to provide effective care, creating a safe, non-judgmental environment for open discussions is essential. Online platforms and social media can also help reduce stigma and facilitate discussions.

Addressing social stigma and expectations of masculinity is crucial in encouraging men to open up about infertility. Supportive environments like counseling, online groups, and healthcare practitioners facilitating open discussions can make a significant difference. Educational initiatives raising awareness about male infertility can help dismantle stigma and foster a culture where men can navigate their infertility journeys more openly and effectively.

### **Limitations and Recommendations**

Research on men's disclosures regarding stigmatized issues like infertility is limited. Some studies analyzed mixed-gender or couple-based disclosures, making it challenging to determine disclosure patterns

by gender. Exploring this topic by region or continent in future research would shed light on the cultural and communication perspectives of women, men, and couples, providing a better understanding of their disclosure approaches and coping strategies.

This review also highlights how biases related to gender dynamics, cultural norms, and psychological factors significantly influence infertility disclosures among women, men, and couples. To address these biases, researchers and clinicians must adopt a more inclusive approach that incorporates the perspectives of both partners in infertility discussions.

## CONCLUSION

Managing infertility requires a careful balance of open communication, coping strategies, and supportive societal attitudes. Understanding and empathy from healthcare professionals and communities are crucial. By promoting honest dialogue and offering targeted support, we can help ease the emotional burden of infertility. Empowering those affected can lead to more fulfilling lives and stronger relationships, underscoring the importance of compassion and informed care in addressing this challenge.

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## REFERENCES

- Agarwal, A., Deepinder, F., & Sabanegh, E. S., Jr. (2010). Male infertility. In P. Dahm & R. R. Dmochowski (Eds.), *Evidence-Based Urology* (pp. 146-155). Blackwell Publishing Ltd. <https://doi.org/10.1002/9781444323146.ch16>
- American Society for Reproductive Medicine. (2023). *Definition of infertility: a committee opinion (2023)*. [https://www.asrm.org/globalassets/\\_asrm/practice-guidance/practice-guidelines/pdf/definition-of-infertility.pdf](https://www.asrm.org/globalassets/_asrm/practice-guidance/practice-guidelines/pdf/definition-of-infertility.pdf)
- Andalibi, N. (2020). Disclosure, privacy, and stigma on social media: Examining non-disclosure of distressing experiences. *ACM Transactions on Computer-Human Interaction (TOCHI)*, 27(3), Article 18. <https://doi.org/10.1145/3386600>
- Ang, C. W., & Lai, S. L. (2023). Women's empowerment in Malaysia and Indonesia: The autonomy of women in household decision-making. *Pertanika Journal of Social Sciences & Humanities*, 31(2), 903-916. <https://doi.org/10.47836/pjssh.31.2.22>
- Aren, S., & Hamamci, H. N. (2024). Impact of conscious and unconscious processes on financial decision-making. *Middle East Journal of Management*, 11(1), 43-69. <https://doi.org/10.1504/MEJM.2024.135142>
- Ashmore, R., & Banks, D. (2002). Self-disclosure in adult and mental health nursing students. *British Journal of Nursing*, 11(3), 172-177. <https://doi.org/10.12968/bjon.2002.11.3.10065>
- Azizbek, S. (2024). Microsurgical varicocelectomy efficacy in treatment of men with primary and secondary infertility (retrospective study). *Archivio Italiano di Urologia e Andrologia*, 96(1), Article 12082. <https://doi.org/10.4081/aiua.2024.12082>



- Badr, H., & Acitelli, L. K. (2017). Re-thinking dyadic coping in the context of chronic illness. *Current Opinion in Psychology* 13, 44-48. <https://doi.org/10.1016/j.copsyc.2016.03.001>
- Balconi, M., Fronda, G., Venturella, I., & Crivelli, D. (2017). Conscious, pre-conscious and unconscious mechanisms in emotional behaviour. Some applications to the mindfulness approach with wearable devices. *Applied Sciences*, 7(12), Article 1280. <https://doi.org/10.3390/app7121280>
- Bernama. (2020, July 12). *Population and Family Development Board: Infertility among Malaysian men on the rise*. Malay Mail. <https://www.malaymail.com/news/malaysia/2020/07/12/population-and-family-development-board-infertility-among-malaysian-men-on/1883714>
- Bute, J. J. (2009). "Nobody thinks twice about asking": Women with a fertility problem and requests for information. *Health Communication*, 24(8), 752-763. <https://doi.org/10.1080/10410230903265920>
- Bute, J. J. (2013). The discursive dynamics of disclosure and avoidance: Evidence from a study of infertility. *Western Journal of Communication*, 77(2), 164-185. <https://doi.org/10.1080/10570314.2012.695425>
- Bute, J. J., & Vik, T. A. (2010). Privacy management as unfinished business: Shifting boundaries in the context of infertility. *Communication Studies*, 61(1), 1-20. <https://doi.org/10.1080/10510970903405997>
- Chapman, A. L., Morgan, L. C., & Gartlehner, G. (2010). Semi-automating the manual literature search for systematic reviews increases efficiency. *Health Information & Libraries Journal*, 27(1), 22-27. <https://doi.org/https://doi.org/10.1111/j.1471-1842.2009.00865.x>
- Chelliah, H. D., Boo, H. S., & Karupiah, P. (2023). Gender, ethnicity and unpaid domestic work before and during the COVID-19 pandemic in Malaysia *Pertanika Journal of Social Sciences & Humanities*, 31(3), 975-993. <https://doi.org/10.47836/pjssh.31.3.04>
- Chiew, P. W., & Mohd Jan, J. (2018). In vitro fertilisation: Women's questions and concerns in a Malaysian online forum *Pertanika Journal of Social Sciences and Humanities*, 26(T), 79-96.
- Cogan, N. A., Liu, X., Chau, C.-V., Kelly, S. W., Anderson, K. T., Flynn, C., Scott, L., Zaglis, A., & Corrigan, P. (2024). The taboo of mental health problems, stigma and fear of disclosure among Asian international students: implications for help-seeking, guidance and support. *British Journal of Guidance & Counselling*, 52(4) 697-715. <https://doi.org/10.31219/osf.io/zv8ps>
- Corrigan, P. W., Kosyluk, K. A., & Rusch, N. (2013). Reducing self-stigma by coming out proud. *American Journal of Public Health*, 103(5), 794-800. <https://doi.org/10.2105/AJPH.2012.301037>
- Derlega, V. J., & Chaikin, A. L. (1977). Privacy and self-disclosure in social relationships *Journal of Social Issues*, 33(3), 102-115. <https://doi.org/10.1111/j.1540-4560.1977.tb01885.x>
- Dixon-Woods, M., Agarwal, S., Jones, D., Young, B., & Sutton, A. (2005). Synthesising qualitative and quantitative evidence: A review of possible methods. *Journal of Health Services Research & Policy*, 10(1), 45-53. <https://doi.org/10.1177/135581960501000110>
- Egan, G. (1976). Confrontation. *Group & Organization Studies*, 1(2), 223-243. <https://doi.org/10.1177/105960117600100208>
- Eisenberg, M. L., Esteves, S. C., Lamb, D. J., Hotaling, J. M., Giwercman, A., Hwang, K., & Cheng, Y.-S. (2023). Male infertility. *Nature Reviews Disease Primers*, 9(1), Article 49. <https://doi.org/10.1038/s41572-023-00459-w>
- Grafsky, E. L. (2018). Deciding to come out to parents: Toward a model of sexual orientation disclosure decisions. *Family Process* 57(3), 783-799. <https://doi.org/10.1111/famp.12313>

- Grunberg, P. H., Da Costa, D., Dennis, C.-L., O'Connell, S., Lahuec, A., & Zekowitz, P. (2023). 'How did you cope with such concerns?': Insights from a monitored online infertility peer support forum. *Human Fertility*, 26(1), 69-83. <https://doi.org/10.1080/14647273.2021.1959952>
- Harris, E. (2023). Infertility affects 1 in 6 people globally. *Jama*, 329(17), Article 1443. <https://doi.org/10.1001/jama.2023.6251>
- Hawkey, A., Ussher, J. M., Perz, J., & Parton, C. (2021). Talking but not always understanding: Couple communication about infertility concerns after cancer. *BMC Public Health*, 21(1), Article 161. <https://doi.org/10.1186/s12889-021-10188-y>
- Hopia, H., Latvala, E., & Liimatainen, L. (2016). Reviewing the methodology of an integrative review. *Scandinavian Journal of Caring Sciences*, 30(4), 662-669. <https://doi.org/10.1111/scs.12327>
- Howard, J. (2023, October 23). Infertility gets a new, expanded definition to address 'the reality of all' seeking care, medical group says. *CNN Health*. <https://edition.cnn.com/2023/10/23/health/reproductive-medicine-group-updates-its-definition-of-infertility-to-address-the-reality-of-all-seeking-care/index.html>
- Husain, W., & Imran, M. (2020). Infertility as seen by the infertile couples from a collectivistic culture. *Journal of Community Psychology*, 49(2), 354-360. <https://doi.org/10.1002/jcop.22463>
- Kahlor, L., & Mackert, M. (2009). Perceptions of infertility information and support sources among female patients who access the Internet. *Fertility and Sterility* 91(1), 83-90. <https://doi.org/10.1016/j.fertnstert.2007.11.005>
- Kaltsas, A., Zachariou, A., Markou, E., Dimitriadis, F., Sofikitis, N., & Pournaras, S. (2023). Microbial dysbiosis and male infertility: Understanding the impact and exploring therapeutic interventions. *Journal of Personalized Medicine*, 13(10), Article 1491. <https://doi.org/10.3390/jpm13101491>
- Kiełek-Rataj, E., Wendołowska, A., Kalus, A., & Czyżowska, D. (2020). Openness and communication effects on relationship satisfaction in women experiencing infertility or miscarriage: A dyadic approach. *International Journal of Environmental Research and Public Health*, 17(16), Article 5721. <https://doi.org/10.3390/ijerph17165721>
- Klaus, R. T., Costa, M. H. D., Pimenta, C. F., Mendes, A. V., & Levandowski, D. C. (2023). To disclose and have someone to count on: Infertility and social support. *Psicologia: Teoria e Prática*, 25(3), Article ePTPCP14408. <https://doi.org/10.5935/1980-6906/ePTPCP14408.en>
- Knoll, M., & Bronstein, J. (2014). An examination of the information disclosure behavior of infertility bloggers: Patterns of self-disclosure and anonymity. *Aslib Journal of Information Management*, 66(2), 175-201. <https://doi.org/10.1108/AJIM-06-2013-0055>
- Kramer, U. (2010). Coping and defence mechanisms: What's the difference?—Second act. *Psychology and Psychotherapy: Theory, Research and Practice* 83(2), 207-221. <https://doi.org/10.1348/147608309X475989>
- Le, P. T., Nguyen, T. T., Dang, T. T., Nguyen, T. C., Duong, T. P., Le, A. H., Ho, T. M., & Vuong, L. N. (2024). Embryological and clinical outcomes in couples with severe male factor infertility versus normozoospermia. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, 294, 123-127. <https://doi.org/10.1016/j.ejogrb.2024.01.014>
- Leslie, S. W., Soon-Sutton, T. L., & Khan, M. A. B. (2023). Male infertility. In *StatPearls*. StatPearls Publishing. <https://pubmed.ncbi.nlm.nih.gov/32965929/>
- Magbri, A. E., Rashid, S., & Brar, B. (2018). Reversal of the norm: Pressure discrepancies on the

- two sides of the septum in chronic kidney disease patients with congestive heart failure. *Acta Psychopathologica*, 4(1). <https://doi.org/10.4172/2469-6676.100145>
- Mahlstedt, P. P. (1985). The psychological component of infertility. *Fertility and Sterility* 43(3), 335-346. [https://doi.org/10.1016/s0015-0282\(16\)48428-1](https://doi.org/10.1016/s0015-0282(16)48428-1)
- Malik, S. H., & Coulson, N. S. (2008a). Computer-mediated infertility support groups: An exploratory study of online experiences. *Patient Education and Counseling* 73(1), 105-113. <https://doi.org/10.1016/j.pec.2008.05.024>
- Malik, S. H., & Coulson, N. S. (2008b). The male experience of infertility: A thematic analysis of an online infertility support group bulletin board. *Journal of Reproductive and Infant Psychology*, 26(1), 18-30. <https://doi.org/10.1080/02646830701759777>
- Malik, S. H., & Coulson, N. S. (2010). Coping with infertility online: An examination of self-help mechanisms in an online infertility support group. *Patient Education and Counseling*, 81(2), 315-318. <https://doi.org/10.1016/j.pec.2010.01.007>
- Malina, A. (2023). Supportive social interaction as a concept for describing the situation of persons experiencing an infertility crisis. *Przegląd Psychologiczny*, 66(3), 81-93. <https://doi.org/10.31648/przegldpsychologiczny.9738>
- Martins, M. V., Peterson, B. D., Costa, P., Costa, M. E., Lund, R., & Schmidt, L. (2013). Interactive effects of social support and disclosure on fertility-related stress. *Journal of Social and Personal Relationships*, 30(4), 371-388. <https://doi.org/10.1177/0265407512456672>
- Medenica, S., Abazovic, D., Ljubić, A., Vukovic, J., Begovic, A., Cucinella, G., Zaami, S., & Gullo, G. (2022). The role of cell and gene therapies in the treatment of infertility in patients with thyroid autoimmunity. *International Journal of Endocrinology*, 2022, Article 4842316. <https://doi.org/10.1155/2022/4842316>
- Mo, P. K., Malik, S. H., & Coulson, N. S. (2009). Gender differences in computer-mediated communication: A systematic literature review of online health-related support groups. *Patient Education and Counseling* 75(1), 16-24. <https://doi.org/10.1016/j.pec.2008.08.029>
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & the PRISMA Group. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *Annals of Internal Medicine* 151(4), 264-269. <https://doi.org/10.7326/0003-4819-151-4-200908180-00135>
- Montgomery, N. D. M., Terrion, J. L., & Crighton, E. (2023). Building social support: Disclosure and communication processes between IVF patients and peers in Canada. *Women's Reproductive Health*, 11(2), 217-238. <https://doi.org/10.1080/23293691.2023.2215765>
- Mumtaz, Z., Shahid, U., & Levay, A. (2013). Understanding the impact of gendered roles on the experiences of infertility amongst men and women in Punjab. *Reproductive Health*, 10, Article 3. <https://doi.org/10.1186/1742-4755-10-3>
- Obeagu, E. I., Njar, V. E., & Obeagu, G. U. (2023). Infertility: Prevalence and consequences. *International Journal of Current Research in Chemistry and Pharmaceutical Sciences*, 10(7), 43-50.
- Okoli, C. (2015). A guide to conducting a standalone systematic literature review. *Communications of the Association for Information Systems*, 37, 879-910. <https://doi.org/10.17705/1CAIS.03743>
- Pasch, L. A., & Sullivan, K. T. (2017). Stress and coping in couples facing infertility. *Current Opinion in Psychology* 13, 131-135. <https://doi.org/10.1016/j.copsyc.2016.07.004>

- Petticrew, M., & Roberts, H. (2008). *Systematic reviews in the social sciences: A practical guide*. John Wiley & Sons.
- Pinzon, M., & Rotoli, S. M. (2023). Correction: A qualitative exploration of social support in males and females experiencing issues with infertility. *Cureus*, *15*(7), c126. <https://doi.org/10.7759/cureus.c126>
- Raheem, A. A., Rees, R., & Ralph, D. (2019). Male infertility. In O. M. Aboumarzouk (Ed.), *Blandy's Urology* (pp. 803-815). John Wiley & Sons Ltd. <https://doi.org/10.1002/9781118863343.ch40>
- Remennick, L. (2000). Childless in the land of imperative motherhood: Stigma and coping among infertile Israeli women. *Sex Roles*, *43*(11), 821-841. <https://doi.org/10.1023/A:1011084821700>
- Rosenfeld, L. B. (1979). Self-disclosure avoidance: Why I am afraid to tell you who I am. *Communications Monographs*, *46*(1), 63-74. <https://doi.org/10.1080/03637757909375991>
- Schlosser, A. E. (2020). Self-disclosure versus self-presentation on social media. *Current Opinion in Psychology* *31*, 1-6. <https://doi.org/10.1016/j.copsyc.2019.06.025>
- Shaffril, H. A. M., Samah, A. A., Samsuddin, S. F., & Ali, Z. (2019). Mirror-mirror on the wall, what climate change adaptation strategies are practiced by the Asian's fishermen of all? *Journal of Cleaner Production*, *232*, 104-117. <https://doi.org/10.1016/j.jclepro.2019.05.262>
- Sierra-Correa, P. C., & Kintz, J. R. C. (2015). Ecosystem-based adaptation for improving coastal planning for sea-level rise: A systematic review for mangrove coasts. *Marine Policy*, *51*, 385-393. <https://doi.org/https://doi.org/10.1016/j.marpol.2014.09.013>
- Singh, A., Singh, S., Sharma, P., & Singh, N. (2024). A study on role of chlamydia infection in primary and secondary infertility. *Current Opinion in Psychology* *6*(1), 206-210.
- Slade, P., O'Neill, C., Simpson, A. J., & Lashen, H. (2007). The relationship between perceived stigma, disclosure patterns, support and distress in new attendees at an infertility clinic. *Human Reproduction*, *22*(8), 2309-2317. <https://doi.org/10.1093/humrep/dem115>
- Sormunen, T., Aanesen, A., Fossum, B., Karlgren, K., & Westerbotn, M. (2018). Infertility-related communication and coping strategies among women affected by primary or secondary infertility. *Journal of Clinical Nursing*, *27*(1-2), e335-e344. <https://doi.org/10.1111/jocn.13953>
- Steuber, K. R., & High, A. (2015). Disclosure strategies, social support, and quality of life in infertile women. *Human Reproduction* *30*(7), 1635-1642. <https://doi.org/10.1093/humrep/dev093>
- Steuber, K. R., & Solomon, D. H. (2011). Factors that predict married partners' disclosures about infertility to social network members. *Journal of Applied Communication Research*, *39*(3), 250-270. <https://doi.org/10.1080/00909882.2011.585401>
- Steuber, K. R., & Solomon, D. H. (2012). Relational uncertainty, partner interference, and privacy boundary turbulence: Explaining spousal discrepancies in infertility disclosures. *Journal of Social and Personal Relationships*, *29*(1), 3-27. <https://doi.org/10.1177/0265407511406896>
- Sun, H., Gong, T.-T., Jiang, Y.-T., Zhang, S., Zhao, Y.-H., & Wu, Q.-J. (2019). Global, regional, and national prevalence and disability-adjusted life-years for infertility in 195 countries and territories, 1990-2017: Results from a global burden of disease study, 2017. *Aging*, *11*(23), 10952-10991. <https://doi.org/10.18632/aging.102497>
- Swami, N. S., Mahal, B. A., & Dee, E. C. (2022). Looking beyond the Western lens: How culture and identity influence perceptions of empathy in patient-clinician relationships. *Cancer*, *128*(7), 1545-1546. <https://doi.org/10.1002/cncr.34075>

- Teh, J. K. L., Tey, N. P., Lai, S. L., Azman, A., & Airena, N. (2023). Active engagement and health status of older Malaysians: Evidence from a household survey. *Pertanika Journal of Social Sciences & Humanities*, 31(1), 241-263. <https://doi.org/10.47836/pjssh.31.1.13>
- Thompson, N., & Brindley, J. (2020). Who are you talking about? Contrasting determinants of online disclosure about self or others. *Information Technology and People*, 34(3), 999-1017. <https://doi.org/10.1108/itp-04-2019-0197>
- Tomassetti, C., & D'Hooghe, T. (2018). Endometriosis and infertility: Insights into the causal link and management strategies. *Best Practice & Research Clinical Obstetrics & Gynaecology*, 51, 25-33. <https://doi.org/10.1016/j.bpobgyn.2018.06.002>
- Warrender, D. (2020). Self-disclosure: The invaluable grey area. *British Journal of Mental Health Nursing*, 9(1), 9-15. <https://doi.org/10.12968/bjmh.2019.0010>
- Werner, S., Halpern, A., Kurz, S., & Rosenne, H. (2019). Disclosure in cystic fibrosis: A qualitative study. *Journal of Social Issues*, 75(3), 881-903. <https://doi.org/10.1111/josi.12338>
- Whittemore, R., & Knaf, K. (2005). The integrative review: Updated methodology. *Journal of Advanced Nursing* 52(5), 546-553. <https://doi.org/10.1111/j.1365-2648.2005.03621.x>
- Yates, J. F., & de Oliveira, S. (2016). Culture and decision making. *Organizational Behaviour & Human Decision Processes*, 136, 106-118. <https://doi.org/10.1016/j.obhdp.2016.05.003>



## **Bullying Experiences and Life Satisfaction Among Adolescents in Malaysia: The Moderating Effect of Teacher Social Support**

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### **ABSTRACT**

Bullying among school-aged adolescents is a pervasive issue. This study aims to examine the predictive impacts of bullying experiences and teacher support on life satisfaction among adolescents, as well as the moderating role of teacher support on the relationship, in the Malaysian context. In Malaysia, 417 school-going adolescents aged 14 to 16 years ( $M_{\text{age}}=14.78$ ) participated in this study. Participants were recruited using a two-stage cluster sampling method, followed by a purposive sampling method from Selangor, Malaysia. Utilising survey questionnaires, we collected data on bullying experiences via the Personal Experience Checklist, teacher social support using the Child and Adolescent Social Support Scale, and life satisfaction via the Student's Life Satisfaction Scale in secondary schools. Findings suggested that both bullying experiences and teacher support contribute to life satisfaction. Teacher support moderates the relationship between bullying experiences and life satisfaction. The relationship between bullying experiences and life satisfaction was significant when the teacher support level was low and average. This study expands the knowledge of developmental psychology in bullying issues in understanding the complex relationships among bullying experiences, teacher social support and life satisfaction among adolescents in

Malaysia. Our findings hold substantial promise for various stakeholders, including educators, school administrators, parents, mental health practitioners, and policymakers, in fostering the development of more effective interventions, strategies, and policies aimed at supporting adolescents in confronting bullying issues while tackling the challenging issue of bullying from a holistic perspective.

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## INTRODUCTION

Adolescence is a crucial stage in human development. This stage is characterised by physical development, which involves hormonal changes, as well as the development of psychological attributes such as personality development, self-esteem, emotional regulation, and social development. However, this period is not without its challenges, with negative experiences, such as bullying, posing significant threats to adolescents' well-being. Studies have demonstrated that such adverse encounters can precipitate a cascade of detrimental outcomes, including mental health issues, maladjustment, academic underperformance, and even thoughts of suicide (Barcaccia et al., 2018; Sabramani et al., 2021; Shaheen et al., 2019).

In Malaysia, the prevalence of bullying among adolescents has reached alarming levels. Studies in Malaysia found that most secondary school students reported either experiencing bullying or engaging in bullying behaviour themselves. According to self-reported responses, a higher proportion of students identified as victims (78.8%) compared to those who identified as bullies (64.5%; Devi et al., 2020). A study in Malaysia found that 79.1% of their samples reported involvement in bullying, either as perpetrators (14.4%), victims (16.3%), or bully victims (48.4%; Sabramani et al., 2021). In response to this escalating concern, the Ministry launched the #StandTogether campaign, in line with the United Nations' call for youth-led initiatives to combat bullying. However,

despite the rapid occurrence and escalations of bullying incidents among young people, little is known about how we can protect the younger generations from the negative impacts of bullying.

Studies in Malaysia have sought to understand the multifaceted nature of bullying in Malaysian schools, with physical aggression, verbal assault, and relational bullying commonly happening in the local context. It is evident that physical aggression is a widespread issue, with instances ranging from punches and kicks to the alarming use of weapons like knives, particularly within boarding school environments (Hassan et al., 2016; Salleh & Zainal, 2014). Brawling is the predominant form of physical bullying in the Malaysian context (Tan et al., 2019). Verbal and relational bullying also frequently took place. Salleh and Zainal (2014) shed light on the prevalence of verbal assault, whereby verbal assaults are characterised using hurtful remarks containing racial remarks, which can detrimentally affect inter-ethnic unity and national stability if left unchecked.

Findings on bullying issues among adolescents underscore the severity and potential danger associated with bullying behaviours in Malaysian schools. There are considerable studies evidencing the negative impacts of bullying experiences on life satisfaction. In a study by Kokkinos and Kipritsi (2017), bullying was found to correlate with reduced life satisfaction and impeded socio-cognitive skill development. Similarly, Chai et al. (2020) found that bullying victimisation in school was



associated with poorer self-rated health and life satisfaction among adolescents. Liu et al. (2020) also support this notion, whereby they found that bullying victimisation contributed to lower life satisfaction among students.

Understanding the specific underlying dynamics of how bullying experiences impact adolescents in different contextual settings is crucial while identifying potential protective factors to reduce the negative impacts of bullying is vital. This understanding is essential for developing effective prevention and intervention strategies, addressing the pervasive issue of bullying, and ensuring the safety and well-being of students.

A substantial portion of the adolescent stage is devoted to schooling and education. These educational institutions are pivotal platforms for adolescents to cultivate a robust sense of identity, profoundly influenced by their experiences within these academic environments, especially with peers and teachers (Lawler et al., 2017). When a school environment lacks support and fosters the presence of bullying, characterised by intentional and repetitive aggression with a power imbalance, these would have lasting impacts on life satisfaction (Varela et al., 2019). Conversely, a positive school climate and support from peers and teachers will potentially mitigate the impacts of negative experiences (Acosta et al., 2018; Chong & Baharudin, 2017), whereby in this context, bullying experiences will be the negative experiences in which the negative impacts need to be mitigated.

Teacher support emerges as a potentially crucial protective factor in buffering against the detrimental consequences of bullying experiences. Healthy student-teacher relationships and students' feeling of care by teachers have been found to positively impact life satisfaction, school engagement and self-esteem (Lavy & Naama-Ghanayim, 2020). Positive teacher management, marked by encouragement of supportive relationships and appreciation of effort, reduced victimisation, while negative teacher management, such as apathy and lack of positive values, increased the tendency of victimisation (Casas et al., 2015). The absence of positive student-teacher relationships affected adolescents who were involved in bullying, whether as victims or perpetrators, by increasing their risk of depression and loneliness (F. L. Huang et al., 2018; Morin, 2020). The study also found that peer victimisation and teacher unfairness have a negative impact on adolescents' life satisfaction (L. Huang, 2020).

Teacher support plays a pivotal role in curbing and preventing bullying incidents within school environments (Miranda et al., 2019). Positive student-teacher relationship was also associated with improved emotional regulation and reduced depressive symptoms among students (F. L. Huang et al., 2018). It is saddening that only a small percentage of bully victims report to their teachers and secondary school students, as found in a study in Malaysia on cyberbullying (Mat Azmi et al., 2021). With instances of non-intervention and normalisation of bullying, victims often conceal their experiences

due to fear of exclusion and repercussions (Holt et al., 2011; Nelson et al., 2019). Despite adolescents' reluctance to disclose bullying incidents, teachers remain key figures for support, with their intervention significantly impacting the reduction of bullying occurrences (Wachs et al., 2019).

In many countries, school authorities hold a legal responsibility to intervene and provide support for adolescents going through bullying experiences; this further reaffirms the crucial role of teachers as agents of support, prevention, and recovery (Rigby, 2020). Gathering facts, speaking with both the victim and the bully, and providing emotional support are some of the effective teacher support strategies (Burger et al., 2015; Wachs et al., 2019). Other varying but equally effective teacher support approaches include disciplinary consequences, reprimanding of perpetrators, meeting with both victim and bully parents, classroom discussion, and other confrontational support measures (Bauman et al., 2008; Burger et al., 2015). Implementation of disciplinary measures by clearly communicating to the bully that their behaviour is unacceptable and reporting the incident to other responsible adults emerged as the most effective intervention strategy for directly addressing bullying and victimisation (Burger et al., 2022).

Teachers served as the school system's main point of reference and contact. Although the importance of teacher support in terms of its contribution to students' well-being is generally understood, the precise mechanisms underlying its impact

on the relationship between bullying experiences and life satisfaction remain unclear. Therefore, the present study seeks to address this knowledge gap by examining the moderating effect of teacher support on bullying experiences and life satisfaction among adolescents in Malaysia. By elucidating the complex dynamics of the relationship, the findings of this study could inform targeted interventions aimed at promoting adolescent life satisfaction and well-being while fostering safer school environments.

Additionally, this study focused on examining bullying experiences among the general adolescent population rather than limiting the scope to adolescents who have reported experiencing bullying. By including a broader adolescent population, this current study could gain a more comprehensive understanding of experiences of bullying incidents across the general adolescent population, the dynamics of bullying experiences and their associated well-being impacts, as well as the underlying mechanisms through which these negative experiences could impact the well-being of adolescents. It is also important to recognise that many adolescents may not fully report or recognise their associated bullying experiences. To enable a better understanding of the pervasiveness of bullying issues, we examined this issue by capturing the full spectrum and continuum of bullying experiences, whether it is from no encounter to frequent encounters, rather than focusing solely on populations of frequent bullying experiences or severe cases.

Specifically, in this study, we examined how varying levels of bullying experiences impact life satisfaction, as well as the moderating role of teacher support, among the general adolescent population.

### **Theoretical Framework**

The theoretical framework guiding this study is Social Capital Theory, which conceptualises one's social system as a network of relationships and trust, fostering synchronisation and cooperation for mutual benefit (Putman, 2000). In the context of this research, teacher support serves as a form of social capital akin to social ties, facilitating access to information, power, influence, social credentials, reinforcement of identity, and support (Evans & Smokowski, 2015; Lin, 2001; Lin et al., 2001). Teacher support can serve as a protective factor which could potentially buffer the detrimental impact of negative life experiences, which is bullying experiences in this study, to prevent adolescents from spiralling downwards into developing adverse developmental outcomes. Access to sufficient teacher support would potentially enhance adolescents' access to resources such as advice, emotional support, school-based services, well-being services, and disciplinary measures to mitigate bullying incidents. These resources would potentially form a protective mechanism that would shield adolescents from the harmful effects incurred by bullying victimisation as well as halting the perpetuation of such incidents. Therefore, teacher support could be a strong form of social capital that

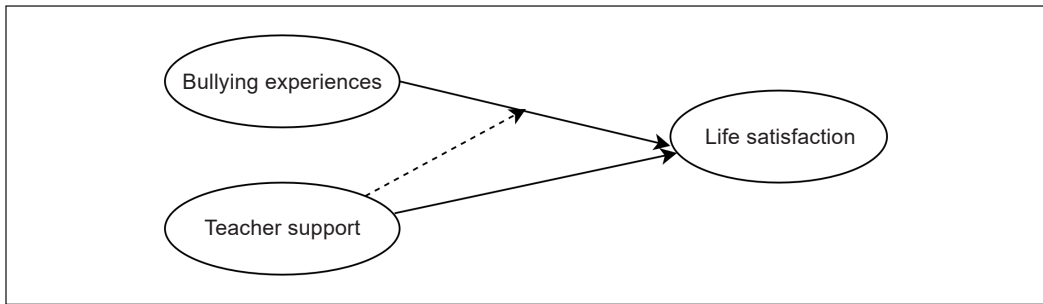
would bridge adolescents' access to various supportive mechanisms within the schooling environment.

This study examines how teacher support, a form of social capital, contributes to adolescents' overall life satisfaction. This study will specifically examine the moderating role of teacher support in relation to personal experience of bullying and life satisfaction among adolescents in Malaysia. By elucidating the underlying mechanism of the relationship between bullying experiences and life satisfaction and the examination the moderating role of teacher support in the said relationship, this study will enhance our current knowledge of the critical issue of bullying, as well as to what extent teacher support could play a role in the effect of bullying experiences on adolescents' well-being.

### **Research Questions and Hypotheses**

This study aims to answer the following research questions: (1) Do bullying experiences and teacher support predict life satisfaction among adolescents? (2) Does teacher support moderate the relationship between bullying experiences and life satisfaction?

Figure 1 illustrates the conceptual framework of the present study, conceptualised through a review of existing research and theory. We hypothesised that both bullying experiences and teacher support will predict life satisfaction among adolescents, and teacher support will moderate the relationship between bullying experiences and life satisfaction.



*Figure 1.* Conceptual framework of the relationship of bullying experiences, teacher support, and life satisfaction  
*Note.* The arrow (→) indicates the direct effect, pointing at the direction of the effect (i.e., Bullying Experiences→ Life Satisfaction, Teacher Support→ Life Satisfaction). The arrow (---) indicates the moderating effect (i.e., Teacher Support has a moderating effect on the relationship between Bullying Experiences and Life Satisfaction)

## METHODOLOGY

This study utilised a quantitative research design. The target population was the general adolescent population. With the current target sample of the general adolescent population, this study aimed to capture a continuum of bullying experiences and life satisfaction levels, from the lowest possible level to the highest possible level, which was analysed to answer the research questions. Participants with all bullying experiences and life satisfaction levels were included, which is also needed for a broader perspective on the issue of interest. Besides, no additional bullying screening was involved in the process of participant recruitment as we intend to capture the data of the general population to understand the pervasiveness and dynamic of the issue among the general adolescent population without solely focusing on adolescents with frequent bullying experiences. With this, the understanding of the complex relationships among bullying experiences, life satisfaction, and teacher support within

the general adolescent population will be enhanced.

The cluster sampling method was utilised in the selection of the participants' pool. The present study used a two-stage cluster sampling process to recruit participants from Selangor. First, two districts were randomly selected from the nine districts in the state of Selangor. Subsequently, three public secondary schools located in two districts were randomly selected. Following the selection of schools, participants who met the criteria were recruited via purposive sampling method in the selected schools.

The participants in this study were required to meet the following criteria: (1) Participants must be between the ages of 13 and 16 years. Due to major public examinations, students between the ages of 15 and 17 were excluded; (2) All participants must be students enrolled at Selangor public schools; (3) To participate in this study, all participants must acquire parental consent; (4) Participants must have a basic understanding of English or

Bahasa Malaysia. As of 2019, the Selangor Education Department reported that there were 278 public secondary schools in Selangor consisting of 361,483 students. According to the Krejcie and Morgan (1970) formula, at least 384 samples need to be recruited. After receiving the questionnaires, all questionnaires were screened to eliminate invalid responses, such as blank responses or incomplete responses, with extremely missing values in all sub-sections of the questionnaire. A final total of 417 samples were included in the data analysis.

Permission to conduct the present study was obtained from the Educational Planning and Research Division (EPRD) of the Ministry of Education, Jabatan Pendidikan Negeri (JPN) Selangor (Selangor State Education Department) and respective school administrations of the three chosen public secondary schools. Researchers made two visits to selected schools. The first visit was to obtain parental consent, whereby the schools facilitated the process. A second visit was made for data collection. All participants in the present study are considered minors under Malaysian law; therefore, written parental consent was obtained from all 417 participants prior to data collection. The current study and the tools employed were explained to the participants. A debriefing session was carried out at the end of data collection.

### **Instruments**

The study instruments are the Personal Experience Checklist (PECK), Child and Adolescent Social Support Scale (CASSS)

and Student's Life Satisfaction Scale (SLSS). Professional translators translated all the instruments from English to Bahasa Malaysia.

#### ***Personal Experience Checklist (PECK)***

The Personal Experience Checklist (PECK) was developed by Hunt and Rapee (2012) to provide a multidimensional evaluation of different types of bullying experiences among children and adolescents aged 8 to 15. The 32-item instrument highlights four distinct sub-scales of bullying, namely, physical bullying, relational-verbal bullying, cyberbullying, and bullying culture-based bullying. All items in this instrument are in the form of simple statements; for example, other kids tease me about things that are not true (relational-verbal), other kids harass me over the phone (cyberbullying), other kids trip me over (physical), other kids would not talk to me because of where I'm from (culture-based bully). Scoring follows a 5-point Likert scale measuring the frequency of bullying experience. Scores are summed to determine moderate to high correlations between the four variables (Hunt & Rapee, 2012). The PECK has been validated with a battery of scales measuring bullying experience, depression, anxiety, and emotional disorders among children and adolescents. This study's reliability analysis yielded a coefficient alpha of 0.92, which is good.

#### ***Child and Adolescent Social Support Scale (CASSS)***

The present study utilised the teacher support subscale of The Child and Adolescent Social

Support Scale developed by Malecki and Demaray (2002) for children and adolescents between 8 and 18 years old. The teacher support subscale contains 12 items, evaluating support behaviour shown by teachers, for example, “my teacher(s) shows me how to do the thing” and “my teacher(s) treats me fairly”. The perceived teacher support behaviour frequency is measured using a 6-point Likert scale. Total scores range between 12 to 72. A higher score indicates higher levels of perceived teacher support. This instrument was validated with a battery of tests measuring perceived social support, self-concept and behavioural assessments for children and adolescents. The CASSS achieved a construct validity ranging from 0.71 to 0.78 and a 0.70 correlation with the Social Support Scale for Children (Harter, 1985). This study’s reliability analysis yielded a coefficient alpha of 0.95 for the teacher support subscale, which is good.

### ***Student’s Life Satisfaction Scale (SLSS)***

Student’s Life Satisfaction Scale is a single-factor scale developed by Huebner (1991) to measure children and adolescents’ life satisfaction (ALS) between ages 8 and 17 years old. Life satisfaction is measured based on respondents’ self-rating of their general quality of life. This instrument consists of 7 items worded in the form of simple statements, for example, I have a good life, and I wish I had a different kind of life. The rating follows a 6-point Likert scale, indicating the extent to which respondents agree or disagree with the

items. The total sum of scores, including reverse coding of item 3 and item 4, would imply the extent to which respondents feel satisfied with their general quality of life. A higher sum of scores suggests higher life satisfaction. Construct validity was established through the correlation of the SLSS with a battery of tools measuring self-concept, happiness, anxiety, temperament and life satisfaction among children and adolescents. This study’s reliability analysis yielded a coefficient alpha of 0.83, which is satisfactory.

### **Data Analysis**

This study’s data analysis used the Statistical Package for the Social Science (SPSS) version 22.0 and Process Macro version 3.5 (Hayes, 2020). The decision criteria were set at the alpha 0.05 level.

## **RESULTS**

A total number of 417 adolescents aged between 14 to 16 years old participated in this study (N=417, mean age= 14.78). Data is normally distributed with skewness values that fall within the threshold of  $\pm 2.58$ , as suggested by Hair et al. (2010), and kurtosis values of not greater than 10.0 (Kline, 2011) across study variables. The rate of missing data in the current study is relatively low at the univariate level (0%–7.94%). Hence, mean substitution was used to handle missing data. Table 1 shows the descriptive statistics of the sample. Before proceeding to the main analysis using Process Macro, a correlational analysis was carried out to provide an overview of the relationships

among variables, which serves a descriptive purpose. Pearson correlation test (Table 2) found significant relationships at a bivariate level between age and teacher support ( $r=0.282, p<0.00$ ), age and life satisfaction ( $r=-0.133, p=0.006$ ), teacher support and life satisfaction ( $r=0.239, p<0.00$ ), bullying experience and life satisfaction ( $r= -0.105, p=0.032$ ).

Process Macro was used in the analysis to determine if bullying experiences predict life satisfaction among adolescents and the moderation effect of teacher support on this relationship. A moderation analysis was conducted using Process Macro Version 3 to test the hypothesis that teacher support moderated the relationship between bullying experiences and life satisfaction among adolescents. In the analysis, age was used as the covariance.

Results are indicated in Table 3. Both bullying experiences and teacher support variables were included in the model. Results found that both variables accounted for 11.23% of the variance in life satisfaction,  $R^2= 0.1123, F(4,412)=13.0324, p<0.00$ . Study variables were centred to prevent potential problematic high multicollinearity with the interaction term. At an individual predictor level, bullying

experiences predict life satisfaction ( $p <0.001$ ), while teacher support does not predict life satisfaction.

Table 1  
*Means and standard deviations on age, total score of personal experience, life satisfaction, and teacher support*

Variable	Value
<b>Age</b>	
Mean (SD)	14.78 (1.33)
Min	13
Max	16
Frequency of Age	
13	114
14	83
16	220
Skewness	-0.29
Kurtosis	-1.74
<b>Personal Experience</b>	
Mean (SD)	50.70 (15.10)
Min	32.00
Max	141.00
Skewness	1.65
Kurtosis	4.13
<b>Life Satisfaction</b>	
Mean (SD)	26.53 (7.61)
Min	7.00
Max	42.00
Skewness	-0.15
Kurtosis	-0.31
<b>Teacher Support</b>	
Mean (SD)	43.58 (14.46)
Min	12.00
Max	72.00
Skewness	0.05
Kurtosis	-0.64

Table 2  
*Bivariate correlations of age, personal experience, teacher support and life satisfaction*

Variable	1	2	3	4
1. Age	-			
2. Personal Experience	-0.012	-		
3. Teacher Support	0.282**	0.058	-	
4. Life Satisfaction	-0.133**	-0.105*	0.239**	-

Note. \*\* $p$ -value significant at 0.01 level (2-tailed), \* $p$ -value significant at 0.05 level (2-tailed)

The interaction term between bullying experience and teacher support was added to the regression model. The change of  $R^2$  is observed as follows:  $\Delta R^2 = 0.0201$ ,  $\Delta F(1,412) = 9.3336$ ,  $p = 0.0024$ , in which the change was significant after entering the interaction term. A simple slope analysis further examined the interaction.

A simple slope analysis was further conducted to examine the relationships between bullying experiences and life satisfaction across three levels of teacher support. Levels of support were divided according to the possible range of scores from 6–72 within the subscale, namely low (6–28), average (29–50) and (51–72). The

result (Table 4) showed that the relationship between bullying experiences and life satisfaction was significant when the teacher support level is low ( $b = -0.1149$ ,  $SE = 0.0371$ ,  $t = -3.9029$ ,  $p = 0.0001$ ) and average ( $b = -0.0690$ ,  $SE = 0.0238$ ,  $t = -2.9038$ ,  $p = 0.0039$ ), but not when the teacher support level is high. The results supported the hypothesis of teacher social support having a moderating effect on the relationship between bullying experiences and life satisfaction.

Figure 2 shows the graphical representation of the moderating effect of teacher support on the relationship between bullying experiences and life satisfaction. At the average or moderate level of reported

Table 3  
*Regression analysis and moderation effect of teacher support on the relationship between bullying experiences and life satisfaction among adolescents*

	$R^2$	$\Delta R^2$	b	SE	95% CI		p
					LL	UL	
Regression and Moderation Analysis	0.112	0.020					<0.001**
Bullying → Life Satisfaction (A)			-0.312	0.087	-0.482	-0.142	<0.001**
Teacher Support → Life Satisfaction (B)			-2.683	1.92	-6.456	1.089	0.163
Interaction of A X B			0.113	0.037	0.040	0.185	0.002**

Note. \*\* $p$ -value significant at 0.01 level (2-tailed),  $R^2 =$  squared multiple correlations,  $\Delta R^2 =$  changes in squared multiple correlations,  $b =$  unstandardized estimate,  $SE =$  standard errors,  $CI =$  confidence interval,  $LL =$  lower bound,  $UL =$  upper bound

Table 4  
*Moderation effect of levels of teacher support on the relationship between bullying experiences and life satisfaction*

Level of teacher support	b	SE	95% CI		p
			LL	UL	
Low (6–28)	-1.1449	0.0371	-0.2179	-0.0719	0.0001**
Average (29–50)	-0.0690	0.0238	0.1157	-0.0223	0.0039**
High (51–72)	0.0070	0.0314	-0.0547	0.0687	0.8243

Note. \*\* $p$  value significant at 0.01 level (2-tailed),  $b =$  unstandardized estimate,  $SE =$  standard errors,  $CI =$  confidence interval,  $LL =$  lower bound,  $UL =$  upper bound



teacher support received, adolescents reported higher levels of life satisfaction at lower levels of bullying experiences. The level of satisfaction towards life declined as adolescents reported higher levels of bullying experience, while the graph shows a steep decline in life satisfaction when adolescents are facing higher bullying experiences at average or moderate levels of teacher support.

The impact of bullying experiences on life satisfaction is the greatest at low levels of teacher support. At a low level of teacher support, adolescents who reported lower levels of bullying experiences have higher levels of satisfaction. At a low level of teacher support, adolescents reported the lowest level of life satisfaction at high levels of bullying experience. Life

satisfaction of adolescents shows a steepest decline from the average level of bullying experience compared to all other levels of teacher support. This indicates that the impact of bullying experience on life satisfaction is at its greatest at a low level of teacher support. At a high level of teacher support, adolescents reported higher levels of satisfaction towards life regardless of the level of bullying experiences as measured in the personal experiences scale. Therefore, no significant relation was found at a high level of teacher support.

**DISCUSSION**

Bullying is pervasive and a long-standing issue in school; this study showed that bullying indeed contributes to lower levels of life satisfaction. However, teacher support

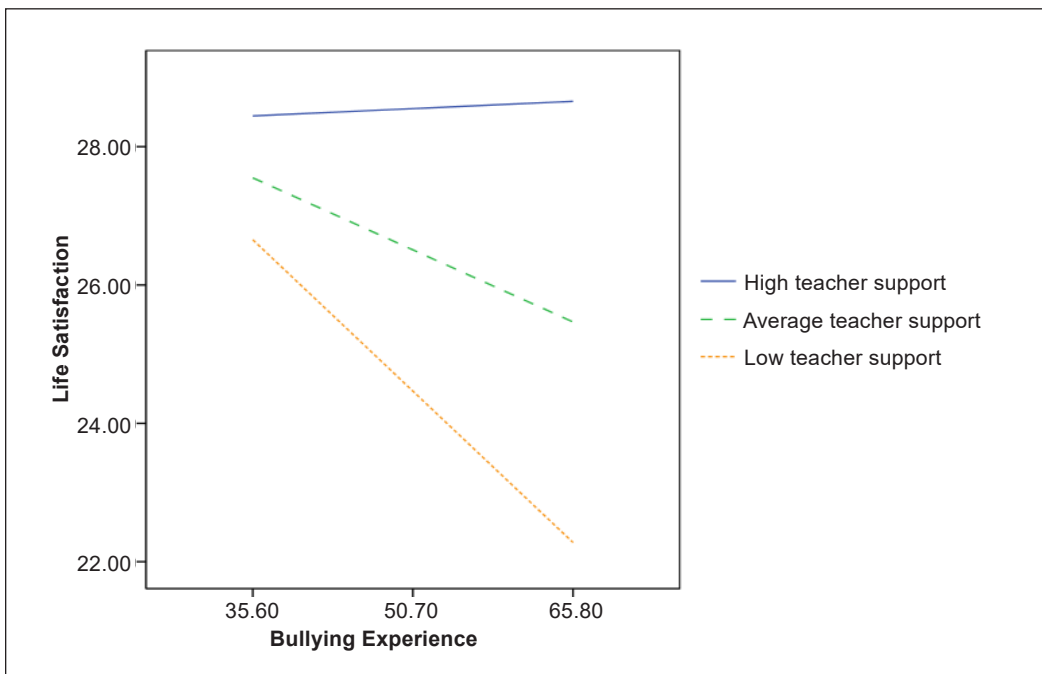


Figure 2. Interaction of bullying experience, teacher support and life satisfaction

could be the protective factor to decrease the impact of bullying on adolescents. The impact of bullying experiences on life satisfaction was established in this study. This study found that both bullying experiences and teacher support predicted life satisfaction. Simultaneously, teacher support moderates the relationship between bullying experiences and life satisfaction. This finding is aligned with previous studies in which bullying experiences contribute to decreased life satisfaction (Arnarsson et al., 2019; Blood et al., 2011). Adolescents predominantly centre their lives on their proximate social circles, encompassing parents, the school community, and peers. Given the substantial time spent at schools within the formal schooling system, adolescents primarily engage with their school environment, thereby indicating that the school community profoundly shapes their holistic assessment of quality of life, including satisfaction towards their life. The findings elucidated in this study emphasise the importance of teacher support within the school environment.

The findings suggested that with a higher level of teacher support received, adolescents tend to have higher satisfaction towards life despite having more experiences of bullying. This implies that adolescents consistently benefit from increased levels of teacher support, irrespective of any negative life events they may encounter. Simultaneously, the impact of bullying on adolescents' life satisfaction is greatest at low levels of teacher support. Given adequate levels of teacher support, adolescents may find it

more manageable to navigate challenging instances of bullying, as teachers serve as a pivotal source of support within the school environment.

Within the Malaysian context, teachers are commonly regarded as authoritative figures within schools, possessing a certain level of influence over student behaviour. This notion was reaffirmed by Halim et al. (2023), in which Malaysia, being a high power-distance society, tends to place great emphasis on respecting authority. Educational approaches in Malaysia generally can be teacher-centred, while students might expect teachers to initiate communication. In the context of the present study, while adolescents are dealing with circumstances that require help, such as experiencing bullying, teachers as the authority figure can play a crucial role in tackling and mitigating instances of ongoing victimisation, as well as offering support that aims at bullying prevention.

The support given by teachers as measured in this study encompasses emotional (e.g., trust, love, and empathy), instrumental (e.g., time), informational (e.g., advice) and/or appraisal (e.g., feedback; Malecki & Demaray, 2002). These various forms of teacher support might serve different purposes for adolescents in dealing with their bullying experience, for instance, emotional support given while hurt has been incurred, time given to resolve the bullying confrontation, as well as giving advice and feedback on ways to deal with bullying instances. Students tend to model their teachers whom they treat as role

models, which eases the process of instilling discipline; at the same time, children have a lesser tendency for misbehaviour if teachers demonstrate more support and empathy (Yaacob et al., 2023). In the context of bullying prevention, providing adolescents with sufficient support and guidance from teachers is considered essential to prevent them from becoming either perpetrators or victims of bullying. This proactive measure which teachers could take can be crucial in addressing bullying behaviours among adolescents.

Nevertheless, the extent of teacher support received might vary and depend significantly on individual perceptions. Adolescents' perceptions of the availability of teacher support might influence their decisions to seek help and support from teachers and school authorities while dealing with bullying experiences. This presents an additional challenge for educators and teachers to ensure that students are aware of available support resources and know how to access those resources when needed.

The findings of this study also confirm the role of teacher support as a form of social capital for adolescents since having teacher support will greatly elevate life satisfaction, which is a major indicator of well-being for adolescents. Social capital theory suggests that social ties are resources that would contribute to the development of human capital (Machalek & Martin, 2015). Cultivating supportive relationships between teachers and students facilitates coping with adverse life experiences, simultaneously fostering the development

of valuable capital within adolescents, such as the inculcation of positive values and effective coping strategies. Supportive social networks for adolescents should encompass teachers and other key figures within their ecological system, including parents. Indeed, past studies have found that parenting and parental support have a vital role in enhancing life satisfaction and resilience among young people in Malaysia (Chong & Baharudin, 2017; Low & Chong, 2024), which provides a good future direction in investigating the phenomenon of bullying in Malaysia.

This study enhances our understanding towards the support mechanisms of the younger population, in which teacher support might buffer the harmful effect of bullying. Implementing efforts to reduce the occurrence of bullying is essential; however, strengthening ways to support adolescents should be one of the focuses of its mitigation strategy. As teachers play a fundamental part in moderating the influence of bullying experiences on life satisfaction, evidenced by the present findings, this calls for school authorities to take on collaborative intervention programs to address and prevent bullying experiences (Gutiérrez et al., 2017; Valdés-Cuervo et al., 2018). Schools could enhance teacher-student relationships and foster a stronger school community through teacher training, support, and formal mentoring programs. Furthermore, enhancing teacher collaboration and communication within schools could encourage proactive responses to bullying incidents (Kollerová et al., 2021).

Support to students could be extended beyond the confines of physical classrooms, but a virtual platform should be considered for students to seek assistance during their trying times. Concurrently, schools and teachers must enhance students' understanding of bullying, focusing on recognising instances of bullying and ways to access support within the school environment. While being involved in bullying, whether as a preparator or victim, could be a traumatic experience for adolescents, ensuring a safe space to build a safe teacher-student connection and supportive relationship would be important.

## CONCLUSION

In sum, the findings of this study show that bullying experiences and teacher support have predictive effects on life satisfaction among adolescents in Malaysia. Simultaneously, teacher support moderates the relationship between bullying experiences and teacher support. Support provided by teachers seems to be a great assistance. It exerts great influence on the life satisfaction of adolescents, whereby it serves as a form of social capital, enhancing adolescents' overall life satisfaction. This study enhanced our understanding of the impact of bullying experience on life satisfaction amongst adolescents in Malaysia, suggesting the vital role of teacher support as the underlying mechanism that affects the relationship. The findings add to the knowledge field of developmental psychology in understanding adolescents' development in facing adverse life experiences (i.e., bullying), and these

findings have broad implications that can be used to improve interventions, strategies, and policy formulation aimed at improving the well-being of adolescents.

## Limitations, Future Study, and Implications

This study used a cross-sectional approach to examine the study variables. If resources are available, future studies could strengthen their findings by implementing a longitudinal approach to examine changes and predictive relationships over time. Other methodologies, such as qualitative studies, could also be adapted to study this issue to allow for data triangulation for a better understanding.

Future studies could broaden their scope to include other populations, such as children, where bullying may also be prevalent. Adolescent samples in this present study reported mostly around the average scores in terms of life satisfaction. Future studies could examine the potential underlying reason contributing to the scores and replicate this current study in different geographical regions to ascertain the generalisability of current findings. Other potential support networks, such as parents, could be explored in future studies. Impacts of other demographic variables, such as gender and family background, could be examined, as socio-economic status might play a role in this current issue. Future studies could explore different aspects of bullying, such as physical bullying, relational-verbal bullying, and cyberbullying, to gain more insight into each aspect.

This study's findings would furnish practitioners, teachers, parents, and policymakers with valuable insights, particularly in reference to the data, facilitating the design of programs and strategies aimed at providing enhanced support to adolescents struggling with bullying. Parents may find this research helpful in understanding the role of teacher social support as a potential mitigating factor in their children's overall well-being, helping them in advocating for a more supportive educational environment. Mental health practitioners may refer to the findings to adapt therapeutic approaches for adolescents facing bullying challenges and incorporate teacher support. In addition, the findings of this study offer valuable insights into issues of bullying, which can inform the development of evidence-based anti-bullying interventions and support mechanisms within Malaysian schools, which would benefit adolescents in the long run. Schools could enhance their well-being services, such as counselling and mentoring programs while educating students about the support resources available. Policymakers and school administrators need to recognise the existence of this critical issue of bullying, which is rampant in schools while utilising the findings to guide the formulation and enhancement of policies. Meanwhile, the development of tailored training sessions and educational curricula is imperative to equip teachers and educators with comprehensive knowledge of bullying dynamics, along with effective strategies for

addressing and mitigating such occurrences within the school environment.

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## REFERENCES

- Acosta, J., Chinman, M., Ebener, P., Malone, P. S., Phillips, A., & Wilks, A. (2018). Understanding the relationship between perceived school climate and bullying: A mediator analysis. *Journal of School Violence* 18(2), 1-16. <https://doi.org/10.1080/15388220.2018.1453820>
- Arnarsson, A., Nygren, J., Nyholm, M., Torsheim, T., Augustine, L., Bjereld, Y., Markkanen, L., Schnohr, C., Rasmussen, M., Nielsen, L., & Bendtsen, P. (2019). Cyberbullying and traditional bullying among Nordic adolescents and their impact on life satisfaction. *Scandinavian Journal of Public Health*, 48(5), 502-510. <https://doi.org/10.1177/1403494818817411>
- Barcaccia, B., Pallini, S., Baiocco, R., Salvati, M., Saliani, A. M., & Schneider, B. H. (2018). Forgiveness and friendship protect adolescent victims of bullying from emotional maladjustment. *Psicothema*, 30(4), 427-433. <https://doi.org/10.7334/psicothema2018.11>
- Bauman, S., Rigby, K., & Hoppa, K. (2008). US teachers' and school counsellors' strategies for handling school bullying incidents. *Educational Psychology*, 28(7), 837-856. <https://doi.org/10.1080/01443410802379085>
- Blood, G. W., Blood, I. M., Tramontana, G. M., Sylvia, A. J., Boyle, M. P., & Motzko, G. R. (2011). Self-reported experience of bullying of students who stutter: Relations with life satisfaction, life orientation, and self-esteem. *Perceptual*

- and Motor Skills*, 113(2), 353-364. <https://doi.org/10.2466/07.10.15.17.PMS.113.5.353-364>
- Burger, C., Strohmeier, D., & Kollerová, L. (2022). Teachers can make a difference in bullying: Effects of teacher interventions on students' adoption of bully, victim, bully-victim or defender roles across time. *Journal of Youth and Adolescence*, 51, 2312-2327. <https://doi.org/10.1007/s10964-022-01674-6>
- Burger, C., Strohmeier, D., Spröber, N., Bauman, S., & Rigby, K. (2015). How teachers respond to school bullying: An examination of self-reported intervention strategy use, moderator effects, and concurrent use of multiple strategies. *Teaching and Teacher Education*, 51, 191-202. <https://doi.org/10.1016/j.tate.2015.07.004>
- Casas, J. A., Oretga-Ruiz, R., & Rey, R. D. (2015). Bullying: The impact of teacher management and trait emotional intelligence. *British Journal of Educational Psychology*, 85(3), 407-423. <https://doi.org/10.1111/bjep.12082>
- Chai, L., Xue, J., Han, Z. (2020). School bullying victimization and self-rated health and life satisfaction: The mediating effect of relationships with parents, teachers, and peers. *Children and Youth Services Review*, 117, Article 105281. <https://doi.org/10.1016/j.childyouth.2020.105281>
- Chong, S.-L. & Baharudin, R. (2017). Supports from parents, optimism, and life satisfaction in early adolescents. *Sains Humanika*, 9(3-2), 77-82. <https://doi.org/10.11113/sh.v9n3-2.1277>
- Devi, D. S., Alazzawi, N. O., & Al-Bajalan, O. B. (2020). The prevalence of bullies and victims associate with gender and grade of the secondary school students in Shah Alam, Malaysia. *International Medical Journal*, 27(3), 289-291.
- Evans, C., & Smokowski, P. (2015). Theoretical explanations for bullying in school: How ecological processes propagate perpetration and victimization. *Child and Adolescent Social Work Journal*, 33(4), 365-375. <https://doi.org/10.1007/s10560-015-0432-2>
- Gutiérrez, M., Tomás, J. M., Romero, I., & Barrica, J. M. (2017). Perceived social support, school engagement and satisfaction with school. *Revista de Psicodidáctica (English ed.)*, 22(2), 111-117. <https://doi.org/10.1016/j.psicod.2017.01.001>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Pearson Prentice Hall.
- Halim, L., Ramli, M., & Nasri, N. M. (2023). The cultural dimensions of inquiry-based practices: Towards a comprehensive understanding. *Asia Pacific Journal of Education*, 43(4), 1328-1342. <https://doi.org/10.1080/02188791.2022.2106941>
- Harter, S. (1985). *Manual of the self-perception profile for children*. University of Denver.
- Hassan, J., Rashid, S. A., & Sufahani, S. F., & Aziz, M. K. N. A. (2016). Bully among rural primary school students: A case study of North Kedah-Perlis Felda Territory, Malaysia. *Jurnal Psikologi Malaysia*, 30(1), 113-125.
- Hayes, A. F. (2020). *The PROCESS macro for SPSS, SAS, and R*. Retrieved from <https://www.processmacro.org/version-history.html>
- Holt, M., Keyes, M., & Koenig, B. (2011). Teachers' attitudes toward bullying. In D. Espelage & S. Swearer (Eds.), *Bullying in North American schools* (2nd ed., pp. 119-131). Routledge.
- Huang, F. L., Lewis, C., Cohen, D. R., Prewett, S., & Herman, K. (2018). Bullying involvement, teacher-student relationships, and psychosocial outcomes. *School Psychology Quarterly*, 33(2), 223-234. <https://doi.org/10.1037/spq0000249>
- Huang, L. (2020). Peer victimization, teacher unfairness, and adolescent life satisfaction: The mediating roles of sense of belonging to school and schoolwork-related anxiety. *School Mental Health*, 12(1), 556-566. <https://doi.org/10.1007/s12310-020-09365-y>

- Huebner, E. S. (1991). Initial development of the student's life satisfaction scale. *School Psychology International, 12*(3), 231-240. <https://doi.org/10.1177/0143034391123010>
- Hunt, C., & Rapee, L. P. R. M. (2012). Development of a measure of the experience of being bullied in youth. *Psychological Assessment, 24*(1), 156-165. <https://doi.org/10.1037/a0025178>
- Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). Guilford Press.
- Kokkinos, C. M., & Kipritsi, E. (2017). Bullying, moral disengagement and empathy: Exploring the links among early adolescents. *Educational Psychology, 38*(4), 535-552. <https://doi.org/10.1080/01443410.2017.1363376>
- Kollerová, L., Soukup, P., Strohmeier, D., & Caravita, S. C. S. (2021). Teachers' active responses to bullying: Does the school collegial climate make a difference? *European Journal of Developmental Psychology, 18*(6), 912-927. <https://doi.org/10.1080/17405629.2020.1865145>
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*(3), 607-610. <https://doi.org/10.1177/001316447003000308>
- Lavy, S., & Naama-Ghanayim, E. (2020). Why care about caring? Linking teachers' caring and sense of meaning at work with students' self-esteem, well-being, and school engagement. *Teaching and Teacher Education, 91*, Article 103046. <https://doi.org/10.1016/j.tate.2020.103046>
- Lawler, M. J., Newland, L. A., Giger, J. T., Roh, S., & Brockevelt, B. L. (2017). Ecological, relationship-based model of children's subjective well-being: Perspectives of 10-year-old children in the United States and 10 other countries. *Child Indicators Research, 10*, 1-18. <https://doi.org/10.1007/s12187-016-9376-0>
- Lin, N. (2001). *Social capital: A theory of social structure and action*. Cambridge University Press.
- Lin, N., Cook, K. S., & Burt, R. S. (2001). *Social capital: Theory and research*. Aldine de Gruyter.
- Liu, Y., Carney, J. V., Kim, H., Hazler, R. J., & Guo, X. (2020). Victimization and students' psychological well-being: The mediating roles of hope and school connectedness. *Children and Youth Services Review, 108*, Article 104674. <https://doi.org/10.1016/j.chilyouth.2019.104674>
- Low, X. Q., & Chong, S. L. (2024). Helicopter parenting and resilience among Malaysian Chinese university students: The mediating role of fear of negative evaluation. *Journal of Adult Development, 31*(4), 316-328. <https://doi.org/10.1007/s10804-023-09467-2>
- Machalek, R., & Martin, M. W. (2015). Sociobiology and sociology: A new synthesis. In J. D. Wright (Ed.), *International encyclopedia of the social & behavioral sciences* (2nd ed., pp. 892-898). <https://doi.org/10.1016/B978-0-08-097086-8.32010-4>
- Malecki, C. K., & Demaray, M. K. (2002). Measuring perceived social support: Development of the Child and Adolescent Social Support Scale (CASSS). *Psychology in the Schools, 39*(1), 1-18. <https://doi.org/10.1002/pits.10004>
- Mat Azmi, I. S. M., Aung, M. M. T., Oo, S. S., Hassan, A., & Amaran, A. (2021). Prevalence of cyber bullying victims and its associated factors among Form 2 and Form 4 secondary school students in Kuala Terengganu, Malaysia. *Asian Journal of Medicine and Biomedicine, 5*(1), 33-40. <https://doi.org/10.37231/ajmb.2021.5.1.412>
- Miranda, R., Oriol, X., Amutio, A., & Ortúzar, H. (2019). Bullying en la adolescencia y satisfacción con la vida: ¿puede el apoyo de los adultos de la familia y de la escuela mitigar este efecto? [Adolescent bullying victimization and life satisfaction: Can family and school adult

- support figures mitigate this effect?] *Revista de Psicodidáctica (English ed.)*, 4(1), 39-45. <https://doi.org/10.1016/j.psicod.2018.07.001>
- Morin, A. H. (2020). Teacher support and the social classroom environment as predictors of student loneliness. *Social Psychology of Education*, 23(6), 1687-1707. <https://doi.org/10.1007/s11218-020-09600-z>
- Nelson, H. J., Kendall, G. E., Burns, S. K., Schonert-Reichl, K. A., & Kane, R. T. (2019). Development of the student experience of teacher support scale: Measuring the experience of children who report aggression and bullying. *International Journal of Bullying Prevention*, 1(6), 99-110. <https://doi.org/10.1007/s42380-019-00015-9>
- Putman, R. D. (2000). *Bowling alone: The collapse and revival of American community*. Touchstone Books/Simon & Schuster. <https://doi.org/10.1145/358916.361990>
- Rigby, K. (2020). How teachers deal with cases of bullying at school: What victims say. *International Journal of Environmental Research and Public Health*, 17(7), Article 2338. <https://doi.org/10.3390/ijerph17072338>
- Sabramani, V., Idris, I. B., Ismail, H., Nadarajaw, T., Zakaria, E., & Kamaluddin, M. R. (2021). Bullying and its associated individual, peer, family and school factors: Evidence from Malaysian national secondary school students. *International Journal of Environmental Research and Public Health*, 18(13), Article 7208. <https://doi.org/10.3390/ijerph18137208>
- Salleh, N. M., & Zainal, K. (2014). Bullying among secondary school students in Malaysia: A case study. *International Education Studies*, 7(13), 184-191. <https://doi.org/10.5539/ies.v7n13p184>
- Shaheen, A. M., Hamdan, K. M., Albqoor, M., Othman, A. K., Amre, H. M., & Hazeem, M. N. A. (2019). Perceived social support from family and friends and bullying victimization among adolescents. *Children and Youth Services Review*, 107(1), Article 104503. <https://doi.org/10.1016/j.childyouth.2019.104503>
- Tan, L., Ganapathy, S. S., Sooryanarayana, R., Hasim, M. H., Saminathan, T. A., Hasim, M. H., Saminathan, T. A., Anuar, M. F. M., Ahmad, F. H., Razak, M. A. A., & Rosman, A. (2019). Bullying victimization among school-going adolescents in Malaysia: Prevalence and associated factors. *Asia Pacific Journal of Public Health*, 31(8), 18-19. <https://doi.org/10.1177/1010539519870665>
- Valdés-Cuervo, A. A., Martínez-Ferrer, B., & Carlos-Martínez, E. A. (2018). The role of teaching practices in the prevention of school violence among peers. *Revista de Psicodidáctica (English ed.)*, 23(1), 33-38. <https://doi.org/10.1016/j.psicod.2017.05.006>
- Varela, J. J., Sirlopú, D., Melipillán, R., Espelage, D., Green, J., & Guzmán, J. (2019). Exploring the influence school climate on the relationship between school violence and adolescent subjective well-being. *Child Indicators Research*, 12(1), 2095-2110. <https://doi.org/10.1007/s12187-019-09631-9>
- Wachs, S., Bilz, L., Niproschke, S., & Schubarth, W. (2019). Bullying intervention in schools: A multilevel analysis of teachers' success in handling bullying from the students' perspective. *The Journal of Early Adolescence*, 39(5), 642-668. <https://doi.org/10.1177/0272431618780423>
- Yaacob, M. F. M., Don, Y., Pauzi, N., Fauzi, N. F., Habibi, A. (2023). Increasing teacher leadership skills in coping with student discipline problems through discipline management approaches. *Malaysian Online Journal of Educational Management*, 11(1), 55-67.



# Vagrancy in the Midst of COVID-19 Pandemic: A Transcendental Phenomenological Study

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## ABSTRACT

The coronavirus outbreak has crippled the Philippine economy, resulting in losses in employment and livelihood. This economic havoc had a detrimental impact on the country's poor and vulnerable sectors, driving them to engage in vagrancy to survive the health crisis. Hence, this study explored the lived experiences of vagrants and the reasons for vagrancy. The transcendental phenomenological research design of Moustakas (1994) through in-depth open-ended and semi-structured interviews was conducted to comprehend vagrants' experiences during the pandemic. Qualitative data findings were analyzed using Braun and Clarke's (2020) thematic analysis. This study showed participants shared feelings about their experiences, which depicted a difficult life, challenging vagrancy conditions, increased vulnerability to health risks, and lack of government assistance. Further, the study revealed that the primary causes of vagrancy are economic hardship and societal influence. The multi-dimensional issues concerning the economy, public health, and the government's response to COVID-19 had a detrimental impact on the poor and the vulnerable in the Philippines.

*Keywords:* Begging, COVID-19, pandemic, transcendental phenomenology, vagrancy

## INTRODUCTION

The global health crisis caused by the Coronavirus has devastated lives and economies worldwide. In developing

countries like the Philippines, the economic impact has been particularly severe, revealing deep disparities as the poor and vulnerable suffer the most. President Rodrigo Duterte declared a public health emergency to address this, leading to lockdowns, quarantines, and travel restrictions (Luna, 2020; Parrocha, 2020). These measures resulted in business closures, curfews, and limited access to essentials, disproportionately affecting the poor (Chiu, 2021). The pandemic's

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economic downturn has worsened vagrancy, resulting in around 4.5 million homeless people nationwide, including three million in Manila (Perez-Rubio, 2021).

Recent articles have highlighted how the COVID-19 pandemic has intensified the vulnerabilities of the poor. Mendiola (2020) and Cordero (2020) reported that the pandemic exacerbates poverty, with data from Brookings and the World Bank showing that low-income families struggle to manage crisis risks. Beltran (2020) noted that increased evictions of slum communities during the pandemic have sharply caused homelessness and vagrancy among already struggling low-income families. Using local government reports and interviews, Beltran revealed that the economic downturn has led to greater housing and economic insecurity, worsening vagrancy.

The response of government agencies to rising vagrancy during the pandemic has faced criticism. Pacaol (2021) noted that strict lockdown enforcement led to the arrest of homeless individuals for curfew violations, arguing that they should be treated with more consideration and that there was a significant lack of access to basic services and healthcare. Bacchi and Chandran (2020) reported that authorities also shut down homeless shelters for violating quarantine protocols, forcing many to seek refuge in empty churches and schools. While the measures were necessary, the proponents argued that the needs of vagrants should have been better addressed.

The inability of vagrants to follow government protective measures and access

healthcare has increased their vulnerability to COVID-19, presenting another critical area of concern. Perri et al. (2020) highlighted that shared homeless accommodations hindered social distancing, exacerbating the risk of infection. The study emphasized the need for safe housing and health services. Similarly, Culhane et al. (2020) noted that poor access to hygiene, sanitation, and early detection raised concerns about widespread virus transmission among the homeless. The study argues that immediate action, including humane accommodation, is needed to address these issues.

While existing studies provide valuable insights, a notable gap exists in understanding the personal experiences of those who turned to vagrancy due to the pandemic. Current research often focuses on economic impacts and government responses, neglecting the intersection with individual experiences. This study aims to address this by exploring the factors leading to vagrancy, using transcendental phenomenology to examine how loss of employment, socioeconomic vulnerability, and health issues influenced these decisions. Additionally, it will investigate the hardships faced by vagrants, including their survival strategies, street conditions, interactions with the public and authorities, and access to healthcare and government assistance. By exploring these experiences, the research will provide crucial insights to guide policymakers, NGOs, and social services in developing targeted interventions to address socioeconomic inequalities and improve support systems during public health crises.

## Theoretical Framework

This research is anchored on Merton's Strain and Marx's Conflict theories. Merton (1938) posited that deviance and non-conformity arise when individuals are unable to meet basic needs through legitimate means. In this context, the COVID-19 pandemic created significant societal pressure on the poor, forcing them to deviate and engage in unlawful economic activities such as vagrancy for survival. Such acts violate Philippine legal norms, specifically Article 202 of the Revised Penal Code (Republic Act No. 10158, 2012) of the Philippine Vagrancy Law.

Moreover, Karl Marx's social-conflict theory (as discussed in Ring, 2012) rationalized vagrancy to structural inequalities in the labor market. Marx argued that capitalism perpetuates inequality, where the rich grow richer, and the poor become poorer due to unequal access to resources and opportunities. During the pandemic, the loss of jobs and livelihoods among the underprivileged in Malaybalay City highlighted these disparities, pushing more people into poverty and vagrancy.

## METHODOLOGY

This research employed a transcendental phenomenological design conducted among the four (4) vagrants in Malaybalay City, Mindanao, Philippines, in October 2021. Transcendental phenomenology, as articulated by Moustakas (1994), is centered on the participants' lived experiences. Given the significant changes brought about by the pandemic, such as shifts in

social dynamics, economic instability, and limited access to resources, this approach enables researchers to explore the unique challenges faced by those experiencing vagrancy without imposing preconceived notions. By focusing on participants' narratives, researchers can uncover these individuals' rich and nuanced realities, highlighting their struggles and resilience during such a tumultuous time. A defining aspect of transcendental phenomenology is its emphasis on bracketing, which involves setting aside researchers' biases to fully understand participants' perspectives. This is crucial when studying vagrancy, as individuals may encounter stigma, isolation, and systemic barriers that shape their experiences. Through systematic methods like in-depth interviews and thematic analysis, researchers can identify common themes and patterns that emerge from diverse experiences.

Purposive sampling was used to select participants with firsthand experience of vagrancy during the COVID-19 pandemic, ensuring they could provide relevant and insightful information. The primary criterion for selecting participants for the in-depth interviews was identifying individuals who began begging during this period. Additionally, participants had to meet at least one of the following conditions: (1) individuals affected by the pandemic who resorted to begging to support themselves and their families, (2) individuals who turned to vagrancy due to losing their jobs and livelihood during the pandemic, or (3) individuals who were unable to

support themselves during the pandemic and engaged in vagrancy as a result. The profile of the participants is presented in Table 1.

The selection of only four participants may seem limited, but it reflects a deliberate approach to capturing the depth of complex human experiences. The participants were chosen because they aptly represent the study's key criteria, the most important being that they became vagrants only during the pandemic. While many individuals met this criterion, the researchers selected only four to avoid unnecessary data duplication. During the pre-test phase of the research instrument, it was found that potential participants shared similar stories and experiences, reinforcing the decision to limit the sample size.

According to Morse (2016), phenomenological studies can achieve saturation and validity with as few as 3 to 6 participants, as the goal is to provide rich, detailed descriptions of the phenomenon rather than broad generalizability. As delineated in the qualitative research literature, the sample size is determined by data saturation, where no new themes or insights emerge from additional interviews. This principle guided the decision to work with a smaller, carefully selected group. Focusing on fewer participants allows a deeper exploration of each individual's unique insights and perspectives. This approach fosters meaningful conversations, revealing the nuances of their experiences, particularly when participants are specifically chosen for their relevance to the research question. Ultimately, the decision

to limit the sample size enhances the validity of the study, ensuring that the voices of the participants are understood and heard in a profound and insightful way.

Data was collected through in-depth interviews, utilizing both open-ended and semi-structured questions designed to explore the study's core themes. The interview guide, carefully developed by the researchers, underwent a thorough review and validation by an expert in the field to ensure the questions were well-aligned with the research objectives. The validation process aimed to refine the questions, ensuring they were clear, unbiased, and capable of eliciting meaningful responses related to the topic under investigation. A sample of the in-depth interview questions is presented in Table 2.

Before the interviews, participants were thoroughly briefed on the study's objectives and their rights. After a detailed explanation of the research process, informed voluntary consent was obtained. The interviews were audio-recorded with participants' permission, each lasting between forty-five minutes and one hour, depending on the depth of the conversation. The interviews were designed to explore participants' experiences with vagrancy and the reasons behind begging, and each session was divided into two parts with breaks in between.

Throughout the data collection process, the researchers adhered to strict ethical guidelines, ensuring the protection and well-being of participants. Health and safety measures were observed before, during,

Table 1  
*Profile of the participants*

Participants Pseudonym	Age	Gender (M/F)	Civil Status	Number of Children	Highest Educational Level	Previous Work	Amount of Money Received in Begging per day	Location of Begging Activities	Reasons for Vagrancy
Ayda	74	F	Widow	0	Grade 5	Farm laborer and street vending	Php 100.00–200.00	Bakery near the city plaza	Unemployment due to old age, hampered livelihood, widowhood, and food insecurity
Berta	73	F	Widowed partner	3	Grade 3	Farm laborer	Php 50.00–100.00	Bakery near the city plaza	Unemployment due to old age, health issues, food insecurity, and influenced by friends
Carla	23	F	Cohabitant	3	Grade 3	Farm laborer	Php 600.00–700.00	Fast-food chain and convenience store	Loss of employment due to the pandemic and food insecurity
Diday	34	F	Cohabitant	0	Grade 2	Farm laborer	Php 50.00–100.00	Church	Partner met with an accident

*Note:* Gender (M/F): Male/Female

Table 2  
*Sample in-depth interview questions*

Questions
a. Can you share your lived experiences as a vagrant during the COVID-19 pandemic? How has your daily life been impacted?
b. Reflecting on your experiences during the pandemic, what has been the most challenging situation you have faced as a vagrant?
c. How has the COVID-19 pandemic affected your ability to make a living and sustain yourself as a vagrant?
d. Can you describe how your daily earnings have changed as a result of the COVID-19 pandemic? What does this mean for your day-to-day survival?
e. What health challenges have you encountered during the COVID-19 pandemic, and how have they affected you?
f. How do you perceive the threat posed by the COVID-19 pandemic to your life and well-being?
g. Can you tell me how you came to live as a vagrant in Malaybalay City?
h. In your view, what factors have contributed to your current situation as a vagrant?

and after the interviews. Moreover, to maintain ethical rigor, a social worker was present during the interviews to ensure that participants felt comfortable and were not subject to any form of coercion. Recognizing that participants might feel uncomfortable or embarrassed during the in-depth interviews, the researcher took measures to ensure a comfortable and respectful interview process. Confidentiality and anonymity were also strictly maintained. After the interviews, participants were debriefed, informed of their right to withdraw their data, and assured that they would still receive compensation.

For the analysis process, thematic analysis, as proposed by Braun and Clarke (2020), was employed to systematically identify, analyze, and report patterns (themes) within the data. Initially, the audio recordings were transcribed verbatim. The researchers then familiarized themselves with the transcripts by reading and re-reading the data, noting initial impressions. During the first cycle of coding, an inductive approach was used to generate and categorize codes from the data. This involved breaking down the data into smaller segments and labeling these segments with codes that captured the essence of key concepts relevant to the research questions. By identifying keywords or phrases, the researchers were able to categorize and organize the data effectively. In the second cycle, pattern coding was employed to group related codes and uncover patterns or similarities. This process involved organizing the

initial codes into broader categories. The researchers then analyzed these categories to identify overarching themes that reflected the main ideas in the data. Categories and themes were reviewed and revised to ensure they accurately represented the data.

The researchers then examined the relationships between different codes and themes, allowing for a nuanced interpretation of participants' responses. This approach facilitated the identification of recurring patterns and insights related to the study's objectives. The study's findings were then organized around the identified themes, with detailed descriptions and analyses supported by participant quotes to convey the overall meaning of their lived experiences (Abrazado et al., 2021). Moreover, to enhance trustworthiness and data validity, the researchers employed member-checking with the assistance of a social worker. They presented and read the study's findings to selected participants, allowing them to react and validate the results.

## **FINDINGS AND DISCUSSION**

Based on the data analysis, the experiences of vagrants during the COVID-19 pandemic highlighted the shared challenges they faced. These included difficult life during the pandemic, challenging begging conditions, increased vulnerability to health risks, and lack of government assistance. Furthermore, the analysis revealed that the primary causes of vagrancy are economic insecurities and societal influence.

### **Difficult Life During the Pandemic**

Vagrants, already grappling with precarious living conditions, faced significant challenges during the COVID-19 pandemic. For instance, Ayda, who used to earn a living as a street vendor, faced financial difficulties and struggled to find food due to lockdown restrictions. “It is hard because of the lockdown. We cannot stroll around and find food to eat,” she explained, noting that the lockdown severely impacted her livelihood as she could no longer sell her goods. To survive the lockdown, she sometimes cooked root crops for food. She recalled, “I hadn’t left the house in a month, so I decided to dig up taro, cassava, and sweet potatoes.” Similarly, Berta, an elderly woman in her 70s, found it difficult to obtain food due to the restrictions. To get by, she relied on her previous earnings from selling rags and penny banks and had to save leftover rice for supper to stave off hunger at night. “Life was better before; now it’s tough, especially when you can’t buy rice to cook,” she remarked.

Meanwhile, Carla, a frail young mother in her early 20s, recounted that life was better before the pandemic. Her partner had a job, and they could provide enough food for the family. “We could eat back then before COVID-19 began. We can provide enough food for the family,” she said. However, during the pandemic, they struggled to find food due to the lockdown. Carla also faced difficulty finding a job because of health requirements. When asked how they managed during the lockdown, Carla responded that she had saved some

money received from the provincial office prior to the lockdown, which helped provide food for her family. Also, Diday, a carefree and talkative vagrant, recalled how she starved during the lockdown due to the lack of assistance, saying, “I’m always starving because I don’t get any assistance.” She prepared rice porridge using a recycled milk can to address her hunger. She was also frustrated by lockdown restrictions, as she didn’t understand the concept of a “quarantine pass.”

The experiences of Ayda, Berta, Carla, and Diday highlight the severe challenges faced by vagrants during the COVID-19 pandemic. Government lockdowns, while essential for public health, disproportionately impacted impoverished populations by disrupting livelihoods and causing shortages of jobs and food. Merton’s strain theory shows how these constraints increase stress on vulnerable individuals, hindering their access to survival resources. Marx’s conflict theory complements this by illustrating how the pandemic deepened structural inequalities, with lockdowns reinforcing social control and neglecting marginalized needs. These theories demonstrate the interaction between individual strain and systemic inequality, supporting Macionis’ (2012) view that the economic hardship faced by the poor is a result of increasing global social inequality.

### **Challenging Begging Condition**

Engaging in vagrancy during the pandemic became more difficult for vagrants as they faced several challenges in their begging

condition, including uncertainty of earnings, security, and societal risks.

### ***Uncertainty of Earnings***

Vagrants never knew how much money they made from begging due to the various restrictions that prevented them from wandering and seeking alms. For instance, Ayda mentioned she could occasionally earn Php100.00 or Php 200.00 per day, which she believed was sufficient to meet her necessities since she was living alone. She chose the city for begging because of the residents' compassion and would specifically appeal to those who appeared well-off. Despite her efforts, she couldn't save money because of high living costs, noting, "A hundred pesos isn't enough; everything is so expensive."

Similarly, Berta found it difficult to earn money through begging, sometimes making only Php100.00 and Php 50.00 a day. She used this money to buy rice and various food items. She mentioned she couldn't save money from begging because her earnings are just enough to cover her daily expenses, "I can't save money because it's just enough to cover my daily expenses for food.» Berta expressed gratitude to those who gave her alms, which helped her buy rice when she could not sell rags or penny banks. Diday also struggled with meager earnings from begging, barely making 20-100 pesos a day and unable to save due to high living costs, "It's hard to save money because things are expensive, and it's also tough not to spend on food.» She occasionally begs outside the church, where people often give her money

and food. On the contrary, Carla persistently begs to provide food for her family, earning around 600-700 pesos a day. She moves between a fast-food chain and a convenience store during her begging. Unlike other participants, Carla earns more from begging because people are more sympathetic to her situation, given that she has a child to support. However, she struggles to save money from her earnings, using it just to buy food and her child's needs.

The participants' experiences reveal the long-term effects of the COVID-19 pandemic, particularly the negative impact on the poor. Vagrants, who rely on minimal earnings from begging, faced increased difficulty meeting their needs due to rising costs. Strain Theory shows how inflation heightened stress and uncertainty for vagrants, while Conflict Theory illustrates how the capitalist system deepened inequalities, further marginalizing them. Both theories provide crucial insights: Strain Theory underscores the financial strain and reliance on societal aid for survival, whereas Conflict Theory highlights the need for systemic support to address structural inequalities. Nuguer and Parrado (2021) note that the poor are especially vulnerable to inflation due to limited resources and reliance on informal debt to meet basic needs.

### ***Security and Societal Risks***

The lives of vagrants on the street have also been constantly confronted with a number of difficulties; participants faced various threats to their security and expressed



frustrations about how some people treated them on the street. Despite having a place to live, Ayda chose to sleep in the city's bus terminal due to her fear of thugs lurking around her house. She also avoided walking around the streets to avoid arrest, saying, "I don't stroll; others were arrested for straying around. I'm afraid they'll arrest me and force me to pay fines I can't afford." She also shared her experience of encountering harsh criticism from others when asking for alms. She recounted, "Some people get angry, claiming that we have able bodies but do not work."

As for Berta, she recalled that during the Enhanced Community Quarantine (ECQ) lockdown, she stayed home out of fear of being arrested. She said, "I didn't leave the house then because I was afraid of being arrested and fined 1,500 pesos. I can't even afford to buy rice, let alone pay such fines; I'd end up in prison." When the lockdown transitioned to General Community Quarantine (GCQ), which allowed for less restricted movement, Berta could go out and beg for alms. However, she remained apprehensive about the potential dangers and conflicts on the streets, saying, "I feel frightened during street conflicts, where people act hostile, and fights may break out." Despite this, she continued to beg, taking precautions to avoid confrontational situations. She also shared similar sentiments with Ayda, describing her experience of receiving derogatory comments from the public. She said, "People get angry and ask, 'You're asking for alms? Why don't you find work?'"

I simply respond that we can't work because no one will hire us due to our age."

While begging on the street, Carla worries about her children's safety and fears they might be arrested while they are begging on the street. She expresses concern about being apprehended by the police, especially since she cannot leave her breastfeeding child at home. Carla also faces criticism from others for bringing her baby while begging, "It's tough because people scold me for bringing my child along, accusing me of involving my child in the situation. Others also warn that the police could arrest us, as children are not permitted to be outside." Meanwhile, Diday admitted feeling helpless in the face of street threats, admitting, "I'm easily frightened by what others say." She revealed that she was repeatedly harassed by a friend who demanded payment for caring for her dog while she was begging. This constant harassment caused her considerable distress and interfered with her sleep. She said, "She keeps threatening me to pay her, and I'm afraid I won't be able to afford it."

The fear of arrest and harsh public treatment experienced by Ayda, Berta, and Carla highlights the stress and strain from their inability to meet basic needs. This societal disdain for vagrants stems from norms that prioritize productivity and employment, stigmatizing those without work as undignified. Participants struggle to meet expectations of employment and financial independence, aligning with Fuseini's (2016) view of vagrancy as a degrading condition. According to the

Strain Theory, such pressures heighten anxiety and stress, leading individuals to resort to alternative coping mechanisms. For vagrants, begging becomes a critical survival strategy in response to the strain they experience despite derogatory comments and harsh treatment.

The pandemic exacerbated challenges for vagrants, with government ordinances guided by the Local Government Code of 1991 (Republic Act No. 7160, 1991) criminalizing vagrancy under the pretense of public order. Marx's Conflict Theory helps explain the impact of these ordinances, arguing that they disproportionately targeted vagrants who already lacked resources and political power. The arrest and punishment of vagrants, as noted by Beier and Ocobock (2008), serve as a form of social control that reinforces their marginalization. Strain Theory highlights the personal stress and adaptive behaviors of vagrants facing barriers to societal goals. At the same time, Conflict Theory reveals the structural inequalities and power dynamics that have exacerbated their disadvantaged status.

### **Increased Vulnerability to Health Risks**

Vagrants may face heightened vulnerability to contracting and suffering from severe illness due to COVID-19. This vulnerability to health risk is worsened by skepticism towards the virus and hesitancy to receive vaccinations.

### ***Possible COVID-19 Symptoms***

The participants claimed to have various illnesses during the COVID-19 pandemic.

For instance, Ayda experienced persistent fevers and occasional fatigue, but she was unsure if these symptoms were COVID-related since her symptoms were relieved by medicine. Berta, on the other hand, had a three-day fever accompanied by severe coughing, sore throat, nausea, vomiting, and blurred vision. Despite her symptoms, she believed that they were unrelated to COVID-19, as she found relief after taking medication. As for Carla, she experienced fatigue, body pain, headache, loss of taste, sore throat, stuffy/runny nose, nausea, and vomiting. She considered these symptoms normal before COVID-19 and doubted they were related to it, "Coughing and colds are completely normal; they existed before COVID-19." Meanwhile, Diday suffered from fever, coughing, difficulty breathing, fatigue, sore throat, nausea, and diarrhea. She feared these symptoms were indicative of COVID-19 and was deeply concerned about the potential threat it posed.

Participants struggled with government protective measures like social distancing and handwashing due to limited access to healthcare, unstable housing, inadequate sanitation, and lack of clean water. These factors made them highly vulnerable to COVID-19 and other illnesses, increasing their strain. Strain Theory highlights how these systemic barriers prevent vagrants from effectively managing their health, leading to heightened stress and health risks. Fertel (2020) emphasizes that the inability to meet basic health needs, including food insecurity, malnutrition, insufficient rest, and hygiene challenges, worsens their vulnerability to COVID-19.

Conflict Theory complements this by highlighting how these systemic issues are rooted in class disparities, leading to unequal health outcomes. The marginalization and limited resources of vagrants reflect broader power dynamics that perpetuate inequality. Culhane et al. (2020) express concerns about widespread transmission among vagrants due to insufficient hygiene facilities and difficulties in early detection—issues exacerbated by structural inequalities. Both Strain and Conflict Theories provide a comprehensive understanding of the intensified challenges faced by vagrants during the pandemic, addressing both personal stressors and broader societal forces.

### ***COVID-19 Skepticism and Vaccine Hesitancy***

Participants demonstrated a lack of awareness about COVID-19, expressing disbelief and skepticism regarding the pandemic while emphasizing their strong faith in God. They also showed reluctance to receive vaccination due to fears and constraints imposed by their families. Ayda firmly believed that COVID-19 was a government-created conspiracy, likening it to secret martial law imposed under the guise of a pandemic, “This COVID-19 is a martial law, a secret they enforce because they can’t openly declare it. So, they label it as COVID-19 instead,” she stated.

Despite her skepticism, Ayda displayed bravery, drawing strength from her religious faith. She objected to the vaccination, citing fear of adverse side effects and

that there had been deaths from them before. Berta expressed doubts about COVID-19, but she relied on her faith in God, believing prayer would protect her from COVID-19. Nevertheless, her decision to forgo immunization was impacted by her uncertainty and lack of knowledge of the virus. She was hesitant due to fear of pain during the procedure and was also influenced by her children’s concerns about potential side effects, “I am hesitant to get vaccinated because I’m afraid it will hurt. My children also don’t want me to get vaccinated.”

On the other hand, Carla acknowledged the risk posed by COVID-19 but insisted that she did not think of its existence, attributing her faith to God. Despite her awareness of the importance of vaccination, she was hesitant due to misinformation propagated by others. In addition, she was swayed by unfounded rumors that the vaccine would turn recipients into zombies, which made her fearful of receiving the shot, “I fear getting vaccinated because people told me it would turn us into zombies.” Despite initial uncertainty, she acknowledged the threat of COVID-19, stating, “I believe it because many people have died of it.” Diday, on the other hand, initially wanted to get vaccinated, but her fears and her partner’s disapproval held her back, “I would like to, but my live-in partner won’t allow it because we heard the vaccine has caused many deaths.”

The participants’ disbelief and uncertainties about COVID-19, shaped by their limited awareness, can be analyzed

through Strain Theory. This theory suggests that significant socioeconomic challenges, like poverty and limited education, lead individuals to adopt alternative coping mechanisms. In this case, vagrants' reluctance to receive the vaccine reflects an adaptive response to their environment, with misinformation and skepticism serving as ways to manage uncertainty and fear about potential side effects. Conflict Theory adds depth by highlighting how structural inequalities exacerbate these issues. Economic strain limits access to education and reliable health information, perpetuating misinformation and distrust. This creates a power imbalance where disadvantaged groups, such as vagrants, are systematically deprived of accurate health information. Research shows that lower socioeconomic status is associated with poorer understanding of COVID-19 and greater vaccine hesitancy (Dash et al., 2021; McCormack, 2021).

Participants' strong religious beliefs and family-oriented culture further reinforce their skepticism about COVID-19. Their worldview, grounded in faith and family, provides a sense of control during uncertain times and influences their vaccination decisions. Bok et al. (2021) note a correlation between higher religiosity and COVID-19 disbelief, emphasizing the impact of cultural factors on health behaviors. The participants' reliance on religious and familial guidance highlights how deeply ingrained cultural values affect their acceptance or rejection of public health measures.

### **Lack of Government Assistance**

Three participants voiced their frustration with the government's response to COVID-19, highlighting the lack of assistance they received during the lockdown. For instance, Ayda expressed her dissatisfaction with the government's handling of the situation, noting that she had not received any support and was unhappy with the delay in their pension. She also criticized the local government for not addressing her concerns, citing budget constraints, "I went to the local government, but they would just tell you that there is still no budget." Ayda urged the government to resolve the pension issue promptly and called for an end to pandemic-related conspiracies to improve people's lives. Similarly, Carla expressed disappointment over the lack of assistance, "We have not received any assistance." She appealed to the government to provide food aid for her family and expressed hope of finding work once her children are older.

Additionally, Diday stressed the importance of government assistance in preventing hunger with daily food. She described the challenges of obtaining help from the local government due to a lack of documentation and her non-local status. Frustrated, she recounted, "I asked for help before, but they told me they couldn't assist me because I don't have the necessary documents and I'm not a local resident." Diday expressed a desire to stop begging and secure stable employment, hoping for opportunities like street sweeping once the pandemic ends. In contrast, Berta was the

only participant who expressed satisfaction with government assistance during the lockdown. She recalled receiving food packs and financial aid from the local government, “We received 2,000 pesos and food items like rice, canned goods, and instant noodles during the lockdown. We were grateful because it allowed us to cook food.” However, Berta was hesitant to make further appeals, citing her shyness. Her requests were to ease her financial needs, such as buying rice, and to receive assistance for her eye condition, as she could not afford eyeglasses. Berta believed that seeking God’s help was the only viable solution to end the COVID-19 pandemic.

The lack of government assistance during the pandemic significantly strained participants, leading to dissatisfaction and frustration due to inadequate support. Strain Theory suggests that such barriers heighten frustration and prompt increased reliance on personal coping mechanisms and criticism of the system. Conflict Theory adds that government actions often prioritize mainstream populations, leaving vulnerable groups at greater risk. Oxfam and Development Pathway report that 2.7 billion people globally did not receive public financial support during the pandemic (“2.7 billion people did not get state aid”, 2020), illustrating how systemic inequalities worsen the challenges faced by these groups.

### **Reasons and Causes of Vagrancy**

The results revealed that the participant’s decision to beg on the street was influenced

by two primary categories: economic insecurity and societal factors.

### ***Begging as a Result of Economic Insecurity***

The data from the four participants highlighted economic insecurity as a primary cause for engaging in vagrancy. They cited navigating food insecurity for survival, socioeconomic vulnerability due to widowhood and old age, loss of employment due to lockdown restrictions, and health issues as significant factors contributing to their situation.

### ***Navigating Food Insecurity for Survival.***

During the pandemic, the participants resorted to begging on the streets to meet their basic needs. This survival strategy emerged in response to the challenging circumstances brought by the pandemic, highlighting their resourcefulness and resilience during the crisis. For example, Ayda chose to stay in one spot while begging, appealing to well-off passersby for sympathy and help. She explained her dire need for food and to improve her situation, “My reason is to be able to have food to eat and escape my poor situation.” Similarly, Berta stayed in one place, selling penny banks and begging for alms to survive. She stressed that food insecurity drove her to this, saying, “I’m here begging for alms because I have nothing to eat. Sometimes, I tell people that I can’t even afford coffee, and they kindly give me alms, which I save to buy rice.” Carla also turned to begging to meet basic needs like food and support her

child during the pandemic; “I’m begging here to buy food and necessities for my child because the pandemic has made life difficult for us.” Additionally, Diday emphasized her determination to survive, noting that begging offered crucial relief by ensuring she had enough food to eat: “I just want to survive and have a food to eat, because it’s hard to let yourself starve in these difficult times.”

The COVID-19 pandemic has severely burdened the poor, making it hard for them to meet acceptable standards of survival and living conditions. As discussed by Merton (1938), the Strain Theory suggests that when traditional paths to success are blocked, individuals may turn to unconventional strategies like vagrancy for survival, particularly in the face of food insecurity. Concurrently, Conflict Theory, articulated by Marx, highlights the socioeconomic disparities driving such behaviors. The pandemic’s economic contraction has widened the wealth gap, exacerbated systemic inequalities and increased vagrancy among the disadvantaged (Pylas, 2021).

***Socioeconomic Vulnerability: Widowhood and Old Age.*** Ayda and Berta shared the loss of their husbands and difficulty finding work due to their age. This led them to resort to begging. Ayda, in particular, faces these challenges alone as a widowed elderly woman with no children, relying solely on herself to survive. The pandemic has been especially hard for Ayda; her economic vulnerability, including limited job opportunities due to age discrimination

and her status as a widow, has driven her to engage in vagrancy to survive the pandemic. She said, “Because of my age, no one will hire me if I apply for a job as a street sweeper or even a housemaid. Since my husband is gone, I’ve ended up like this, so I just ask for alms.” Berta shared similar sentiments. Due to her age, she was rejected as a street sweeper, leaving her no choice but to beg for alms. She emphasized that begging was essential for her survival. Berta recalled when her husband’s death forced her to beg on the street because she couldn’t support herself, “I asked for a job like street sweeping, but they refused because I’m old. So, I was left with no choice but to beg for alms. I also don’t have anyone, and my husband has already passed away.” Her daughter, who also lived in the city, could not support her due to her financial struggles.

Widowhood and age-related employment challenges highlight the increased socioeconomic vulnerability of Ayda and Berta as elderly widows and vagrants. In patriarchal societies like the Philippines, the loss of a male breadwinner puts additional pressure on family income and stability, leading individuals to adopt coping mechanisms such as vagrancy. Strain Theory explains that limited institutional means force these individuals to resort to unconventional methods for survival. Jimenez’s (2021) UN-DESA report confirms that spousal loss impacts economic stability, particularly for women and children. Conflict Theory further emphasizes how patriarchal structures

and economic inequalities exacerbate the vulnerability of elderly widows, weakening traditional familial support due to economic constraints (Carandang et al., 2019).

***Loss of Employment due to Lockdown Restrictions.*** The lockdown restrictions imposed to mitigate the spread of the Coronavirus have significantly impacted the economy, causing distress among workers who lost their jobs. Carla's partner was one of the unfortunate workers, rendered unemployed by the pandemic, leaving Carla to work hard at begging to support their family's daily needs. "The pandemic has made things difficult for us. My live-in partner lost his job and hasn't been able to return to work," Carla shared. Although her partner occasionally helps her with begging, he is often left at home with their other children. Carla mentioned that his partner struggles to find work despite actively seeking employment.

The pandemic-induced economic crisis has disproportionately affected low-income workers, worsening economic inequality. Marx's Conflict Theory highlights how widening income disparities reflect deeper systemic issues and class conflicts. Job losses and diminished livelihoods force some individuals into vagrancy as a survival strategy. Merton's Strain Theory supports this, suggesting that blocked opportunities, such as unemployment, lead individuals to unconventional methods like vagrancy. The combined impact of economic downturns and systemic inequalities pushes the poor to adopt such measures. This dual perspective

aligns with Sagbigsal et al. (2019), illustrating how both theories explain the rise in vagrancy during economic crises.

***Health Issues.*** Two participants, Berta and Diday, identified health-related issues as key factors that drove them to beg for alms on the street. Berta highlighted her underlying health conditions, such as knee pain and arm numbness, which prevented her from working and forced her to beg. "I cannot work any longer because I have been struggling with my knees' condition and the numbness of my arm," she explained. Diday also began begging after her partner met with an accident, leaving her to fend for both. "A fast-food chain van hit my live-in partner, and I was the only one striving back then. It has been more than a year now," she recalled. For Diday, begging for alms provides crucial relief during the pandemic, with her 89-year-old partner assisting her in meeting their daily needs.

The underlying medical conditions and unforeseen accidents exacerbate financial anxieties among participants. Strain theory suggests that individuals facing additional financial strain due to health issues may resort to vagrancy as a means of coping. Conflict theory reinforces this view by highlighting how systemic inequalities in healthcare and social support exacerbate financial distress, leading to increased reliance on unconventional survival strategies such as begging. This aligns with the UN-DESA policy brief (Jimenez, 2021), which indicates that illness and lack of adequate health insurance further strain

livelihoods, contributing to the prevalence of vagrancy among the impoverished.

Underlying medical conditions and unforeseen accidents heighten financial anxieties among participants. Strain Theory suggests that added financial strain from health issues may drive individuals to vagrancy as a coping mechanism. Conflict Theory supports this by highlighting how systemic healthcare and social support inequalities exacerbate financial distress, increasing reliance on unconventional survival strategies like begging. This aligns with the UN-DESA policy brief (Jimenez, 2021), which notes that illness and inadequate health services have contributed to the prevalence of vagrancy among the impoverished.

***Begging as A Result of Societal Influence***

Societal influence can drive individuals to engage in vagrancy, as seen in Berta’s experience. She learned to beg from a friend who was also a widow, stating, “I tagged along with my friend and learned how to beg.” Berta also mentioned joining a group of beggars out of embarrassment, saying, “I joined them because I felt ashamed begging alone.” In collectivist countries like the Philippines, societal influence has fostered a culture of begging, shaping individuals’ decisions to engage in vagrancy. This aligns with Sagbigal et al. (2019), who found that societal factors contribute to this behavior. Table 3 presents the themes, categories, and code derived from this study’s data.

Table 3  
*Themes, categories, and codes derived from the data*

Themes	Categories and Codes
Difficult Life During the Pandemic	<ul style="list-style-type: none"> <li>• Difficulty accessing food due to lockdown restrictions</li> <li>• Livelihood has been affected, and finding work is challenging due to health requirements</li> <li>• Faced starvation as no aid has been provided</li> <li>• Frustration over lockdown restrictions and lack of knowledge about obtaining a quarantine pass</li> </ul>
Challenging Begging Condition	<ul style="list-style-type: none"> <li>• Uncertainty of Earnings                             <ul style="list-style-type: none"> <li>▪ Inability to save money</li> <li>▪ Earnings from begging are insufficient</li> </ul> </li> <li>• Security and Societal Risks                             <ul style="list-style-type: none"> <li>▪ Feared for own safety while being alone in the house</li> <li>▪ Terrified of being arrested for vagrancy by the authorities and police</li> <li>▪ Anxious about potential dangers arising from hostile situations on the street</li> <li>▪ Felt helpless in the face of threats on the street</li> <li>▪ Was advised not to wander around due to the COVID-19 threat</li> <li>▪ Worried about the children's safety while they were out on the street asking for alms</li> <li>▪ Criticized for bringing her baby while begging on the street</li> </ul> </li> </ul>
Increased Vulnerability to Health Risks	<ul style="list-style-type: none"> <li>• Possible COVID-19 Symptoms                             <ul style="list-style-type: none"> <li>▪ Trouble breathing due to a severe cough</li> <li>▪ Experienced sore throat, nausea, diarrhea, vomiting and blurred vision</li> <li>▪ Experienced fatigue, tiredness, muscle and body pain and headache</li> <li>▪ Lost sense of taste, experienced fever, as well as chills</li> </ul> </li> </ul>



Table 3 (continue)

Themes	Categories and Codes
	<ul style="list-style-type: none"> <li>• COVID-19 Skepticism and Vaccine Hesitancy               <ul style="list-style-type: none"> <li>▪ Belief in the COVID-19 pandemic being a hoax and a government-created conspiracy</li> <li>▪ Not believing in the existence of COVID-19 and displaying confidence in a Supreme Being instead of fearing the pandemic</li> <li>▪ Fear and hesitation about getting vaccinated due to misinformation, such as the belief that it could cause death or turn people into zombies</li> <li>▪ Feeling anxious about getting vaccinated and claiming that the procedure would be painful</li> <li>▪ Reluctance to receive the vaccination due to familial factors</li> </ul> </li> </ul>
Lack of Government Assistance	<ul style="list-style-type: none"> <li>• Unable to receive government assistance during lockdown</li> <li>• Disappointment with the way the local government handled concerns</li> <li>• Help was denied because they were not residents of the city</li> </ul>
Reasons and Causes of Vagrancy	<ul style="list-style-type: none"> <li>• Begging as a Result of Economic Insecurity               <ul style="list-style-type: none"> <li>▪ Navigating Food Insecurity for Survival</li> <li>▪ Socioeconomic Vulnerability: Widowhood and Old Age (loss of husband and unemployment due to age)</li> <li>▪ Loss of Employment due to lockdown</li> <li>▪ Health Related Issues (underlying health conditions and partner met with an accident)</li> </ul> </li> <li>• Begging as a Result of Societal Influence</li> </ul>

## CONCLUSION

The research highlights the relevance of Karl Marx's Social Conflict Theory to the current situation in the Philippines, revealing significant social inequalities exacerbated by the pandemic. Economic insecurities, such as unemployment and job loss, have contributed to the rise of vagrancy. The pandemic has further exposed the severe financial difficulties and food insecurity faced by vagrants due to lockdown restrictions. These challenges are compounded by societal issues like derogatory comments, threats, and limited access to healthcare and government support, worsening their physical and mental health. The commercialization of healthcare has further marginalized impoverished families, turning it into a privilege rather than a right. Addressing

these issues requires a multi-faceted approach, including community engagement and government intervention to address the root causes of vagrancy and empower individuals to rebuild their lives.

The findings highlight significant implications for local and national governments, particularly agencies like the Department of Social Welfare and Development (DSWD) and City Social Welfare and Development (CSWD). Although laws addressing health, poverty, and the elderly have been enacted, their implementation lacks the effectiveness needed to address the socioeconomic and political challenges faced by low-income families and the elderly. Legislative bodies must re-evaluate and revise these laws and policies to improve government services for citizens.

Valuable lessons can be learned for improving future government programs: (1) providing immediate economic relief through unemployment insurance and financial aid; (2) implementing job opportunities and livelihood programs for vulnerable groups like the homeless; (3) enhancing management of financial assistance to prioritize the poor and vulnerable; and (4) improving healthcare services by offering free check-ups, medications, hygiene products, and emergency kits to those with limited access. Local organizations and communities can significantly enhance national government programs by facilitating aid distribution during emergencies like pandemics, typhoons, and earthquakes. Their proximity ensures immediate support. Additionally, local governments can align their resolutions, ordinances, and policies with national programs to effectively extend basic services. Barangay units, being the most accessible, can provide essential services such as healthcare, social welfare, and other crucial support.

This study has limitations, including a small sample size of four participants, which may not fully represent the experiences of all vagrants in Malaybalay City, affecting the richness and generalizability of the data. Conducting street interviews posed challenges like environmental distractions, potentially disrupting the process and impacting data quality. Participants' reluctance to share personal information due to fear or mistrust may also affect the accuracy of their responses. Additionally, the study was conducted during the COVID-19 pandemic, with strict health

protocols that may have influenced the study's outcomes. Despite the study's limitations, steps were taken to minimize potential biases, including non-participant observation and member checking to ensure alignment with participants' experiences. Although the small sample size may limit the generalizability of the findings, the study significantly contributes to the literature on *Vulnerabilities and Social Marginalization* by examining vagrancy during the COVID-19 pandemic. Future research should consider using multiple qualitative approaches or triangulation methods to more fully capture the experiences of vagrants in the post-pandemic context.

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## REFERENCES

- 2.7 billion people did not get state aid during pandemic: Oxfam. (2020, December 15). *Al Jazeera*. <https://www.aljazeera.com/economy/2020/12/15/2-7-billion-people-got-no-state-aid-during-pandemic-report>

- Abrazado, J., Namoco, S., & Dalonos, S. (2021). A transcendental phenomenological study on special education teachers' use of distance learning modalities in Misamis Oriental, Philippines during covid-19 pandemic. *Science International (Lahore)*, 33(4), 271-278.
- Bacchi, U., & Chandran, R. (2020, April 23). Homeless people 'treated as criminals' amid coronavirus lockdowns. *Reuters*. <https://www.reuters.com/article/world/homeless-people-treated-as-criminals-amid-coronavirus-lockdowns-idUSKCN22527H/>
- Beier, A. L., & Ocobock, P. (2008). *Cast out: Vagrancy and homelessness in global and historical perspective*. Ohio University Press. <https://doi.org/10.2307/j.ctt1rfsq2g>
- Beltran, M. (2020, October 9).** Amid a pandemic, evictions plague the Philippines: How can Filipinos, especially low-income families, stay at home when they are being forced into homelessness? *The Diplomat*. <https://thediplomat.com/2020/10/amid-a-pandemic-evictions-plague-the-philippines/>
- Bok, S., Martin, D., & Lee, M. (2021). Validation of the COVID-19 disbelief scale: Conditional indirect effects of religiosity and COVID-19 fear on intent to vaccinate. *Acta Psychologica* 219, Article 103382. <https://doi.org/10.1016/j.actpsy.2021.103382>
- Braun, V., & Clarke, V. (2020). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative Research in Psychology*, 18(3), 328-352. <https://doi.org/10.1080/14780887.2020.1769238>
- Carandang, R. R., Asis, E., Shibnuma, A., Kiriya, J., Murayama, H., & Jimba, M. (2019). Unmet needs and coping mechanisms among community-dwelling senior citizens in the Philippines: A qualitative study. *International Journal of Environmental Research and Public Health*, 16(19), Article 3745. <https://doi.org/10.3390/ijerph16193745>
- Chiu, P. D. (2021, August 20). Why the Philippines' long lockdowns couldn't contain Covid-19. *BMJ*, 374, Article n2063. <https://doi.org/10.1136/bmj.n2063>
- Cordero, T. (2020, December 8). COVID-19 pandemic to add 2.7M more poor people in 2020 — World Bank. *GMA News Online*. <https://www.gmanetwork.com/news/money/economy/767223/covid-19-pandemic-to-add-2-7m-more-poor-people-in-2020-world-bank/story/>
- Culhane, D., Treglia, D., Steif, K., Kuhn, R., & Byrne, T. (2020). *Estimated emergency and observational quarantine capacity need for the U.S. homeless population related to COVID-19 exposure by county: Projected hospitalizations, intensive care units, and mortality* (Report). National Alliance to End Homelessness. <https://hdl.handle.net/2144/42789>
- Dash, S., Parray A. A., De Freitas L., Mithu M. I., Rahman M. M., Ramasamy A., & Pandya A. K. (2021). Combating the COVID-19 infodemic: A three-level approach for low and middle-income countries. *BMJ Global Health*, 6, Article e004671. <https://doi.org/10.1136/bmjgh-2020-004671>
- Fertel, I. (2020, May 18). *False perception of COVID-19's impact on the homeless*. FactCheck.org. <https://www.factcheck.org/2020/05/false-perception-of-covid-19s-impact-on-the-homeless/>
- Fuseini, T. (2016). *The experiences of Muslim child beggars in Dagbon of Northern Ghana: An exploratory study from the perspective of salutogenesis*. [Master's thesis, The University of Bergen]. <https://hdl.handle.net/1956/12176>
- Jimenez, M. (2021). UN/DESA Policy Brief #95: *What triggers economic insecurity and who is most at risk?* United Nations. <https://www.un.org/development/desa/dpad/publication/un-des-a-policy-brief-95-what-triggers-economic-insecurity-and-who-is-most-at-risk/>

- Luna, F. (2020, March 16). *Duterte places entire Luzon under 'enhanced' community quarantine*. The Philippine Star. <https://www.philstar.com/headlines/2020/03/16/2001320/duterte-places-entire-luzon-under-enhanced-community-quarantine>
- Macionis, J. (2012). *Sociology* (14th ed.). Prentice Hall Incorporated.
- McCormack, L. A., Squiers, L., Frasier, A. M., Bevc, C., Lynch, M., Bann, C. M., & MacDonald, P. D. M. (2021). Gaps in knowledge about COVID-19 among US residents early in the outbreak. *Public Health Reports*, 136(1), 107-116. <https://doi.org/10.1177/0033354920970182>
- Mendiola, R. (2020, November 11). PH among countries to see an increase in extreme poverty due to COVID-19. *Asian Journal News*. <https://www.asianjournal.com/philippines/across-the-islands/ph-among-countries-to-see-an-increase-in-extreme-poverty-due-to-covid-19/>
- Merton, K. R. (1938). Social structure and anomie. *American Sociological Review*, 3(5), 672-682. <https://doi.org/10.2307/2084686>
- Morse, J. M. (2016). Critical analysis of strategies for determining rigor in qualitative inquiry. *Qualitative Health Research*, 25(9), 1212-1222. <https://doi.org/10.1177/1049732315588501>
- Moustakas, C. (1994). *Phenomenological research methods*. SAGE Publications, Inc.
- Nuguer, V., & Parrado, E. (2021, October 12). Inflation and its impact on the poor in the era of COVID-19. *Inter-American Development Bank*. <https://blogs.iadb.org/ideas-matter/en/inflation-and-its-impact-on-the-poor-in-the-era-of-covid-19/>
- Pacaol, N. (2021). 'Alms! Alms! Give us some support!': An inquiry on the homeless. *Journal of Public Health*, 44(3), e444-e446. <https://doi.org/10.1093/pubmed/fdab282>
- Parrocha, A. (2020, March 9). *State of public health emergency declared in PH*. Philippine News Agency. <https://www.pna.gov.ph/articles/1095955>
- Perez-Rubio, B. (2021, August 7). CHR urges protection, aid for the homeless amid Metro Manila lockdown. *The Philippine Star*. <https://www.philstar.com/headlines/2021/08/07/2118272/chr-urges-protection-aid-homeless-amid-metro-manila-lockdown>
- Perri, M., Dosani, N., & Hwang, S. (2020). COVID-19 and people experiencing homelessness: Challenges and mitigation strategies. *Canadian Medical Association Journal*, 192(26), E716-E719. <https://doi.org/10.1503/cmaj.200834>
- Pylas, P. (2021, January 26). Pandemic widens income inequality, study says. *Chattanooga Times Free Press*. <https://www.timesfreepress.com/news/2021/jan/26/pandemic-widens-income-inequality-study-says/>
- Republic Act No. 10158. (2012). [https://lawphil.net/statutes/repacts/ra2012/ra\\_10158\\_2012.html](https://lawphil.net/statutes/repacts/ra2012/ra_10158_2012.html)
- Republic Act No. 7160. (1991). An Act Providing for A Local Government Code of 1991. <https://www.officialgazette.gov.ph/1991/10/10/republic-act-no-7160/>
- Ring, A. (2012, February 27). Exploring homelessness: Causation and measures of eradication. *Sociology Lens Insight*. Retrieved December 20, 2022, from <http://www.sociologylens.net/topics/politicoeconomic sociology/exploring-homelessness-causation-and-measures-of-eradication-2/9460>
- Sagbigsal, A. L., Mangubat, J., Breña, J. H. (2019). Vagrancy as a result of injustice: Exploring the lived experiences of city street beggars. *Pertanika Journal of Social Sciences & Humanities*, 27(1), 443-456.

## **Teacher Preparedness, Availability of Teaching Materials, and the Implementation of Competence-based Curriculum**

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### **ABSTRACT**

The competence-based curriculum aims to develop the skills, abilities, and competencies of students from their previous experiences. A particular interest in this curriculum sprouted from its potential to ensure that students acquire enhanced employability skills. The recognition of the need to understand the implementation of the competence-based curriculum policy in Rwanda rendered this research relevant. Therefore, the study endeavored to test the influence of teacher preparedness and the availability of teaching materials on the implementation of a competence-based curriculum. This study employed quantitative methods, wherein a sample ( $n = 207$ ) of teachers was selected through the random sampling method. In alignment with the quantitative approach, a survey composed of standardized instruments was distributed to the study participants to collect data that was subsequently analyzed by statistical procedures. Descriptive analysis, Pearson correlation, and multiple regression tests were carried out to achieve the objective of the study. The results indicated that teacher preparedness and the availability of teaching materials had a positive and significant influence on the implementation of a competence-based curriculum and explained a 37% variance, which implies that well-prepared teachers and easy accessibility of teaching materials stand for a 37% chance of successful implementation of a competence-based curriculum. Further, it was also

noted that teacher preparedness ( $\beta=0.517$ ,  $p < 0.005$ ) had a greater influence on competence-based curriculum than the availability of teaching materials. Relevant implications were drawn from these findings, and recommendations were made accordingly.

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## INTRODUCTION

Competence-Based Curriculum (CBC) appeared in the United States in the 1950s and early 1960s and garnered attention towards using behaviorally observed attributes that could contribute to curriculum development. In the 1970s and 1980s, CBC focused on using fragmented behavioral elements in the curriculum, which led to its decreased popularity. After some improvement, CBC approaches became popular and practical in developed countries in Europe, such as France, the Netherlands, the United Kingdom, and Germany, followed by developing countries in Africa like South Africa, Ethiopia, Tanzania, Mozambique, and later Rwanda (Paulo & Tilya, 2014; Tilya & Mafumiko, 2010).

The CBC adopted in Rwanda by the Ministry of Education emphasizes discrete skill-based learning over traditional knowledge (Ministry of Education, 2015). According to the CBC, the objective is to encourage skill learning that enables higher-order thinking skills, resulting in effective learning. Consequently, such a learning environment allows students to tackle real-life problems using practical ideas rather than depending heavily on age-old memorization and recall (V. Nsengimana, 2020). The key features of CBC include inclusiveness, flexibility, transparency, and accountability; integration with ICT as a tool; interconnection with cross-cutting issues like comprehensive sexuality education, environment, and sustainability; financial education; gender; genocide studies; peace and values education;

standardization culture; and inclusive education (Ministry of Education, 2015). The curriculum emphasizes practical skills like using science and technology for seeking resolution to everyday issues and fast work completion. The curriculum also seeks to cultivate interest, inquisitiveness, and research skills among the students to elucidate ideas, hypotheses, and scientific occurrences. The curriculum framework emphasizes the need to evaluate students' accuracy of responses, coherence of concepts, logical deduction, precision, use of suitable methodologies, quality of outcomes, swiftness and effectiveness, and consistent performances on aptitude and practical examinations.

Many Asian countries have adopted CBC, including but not limited to China, Singapore, Hong Kong, Malaysia, and the Philippines. Most of these countries quickly adjusted their education policies to meet the requirements of the CBC (Cator et al., 2014). For instance, the Singaporean authorities adopted a new policy regarding the educational system in their medical schools. This adjustment required students of internship programs to be assessed on six core competencies (Khoo et al., 2014). Shortly, many countries in Africa, such as South Africa, Ethiopia, Tanzania, Mozambique, and Ghana, followed the example of developed countries by implementing the CBC (Makunja, 2015; Paulo & Tilya, 2014). The common problems encountered in African countries while implementing CBC were (a) the development of educational policies, (b) the creation of the profile of

school administrators, and (c) the creation of the profile of students. Additionally, the teachers grappled with insufficient training, along with a lack of teaching and learning materials. In 2015, the Rwandan government decided to change the curriculum at all levels of elementary and secondary schools from KBC to CBC (Mbarushimana & Kuboja, 2016).

The Rwandan educational leaders wanted to design an elaborative curriculum emphasizing transferable skills that are expected by employers and the global labor market (Mbarushimana & Kuboja, 2016; Ngendahayo & Askill-Williams, 2016). It was hoped that this change of curriculum would equip the students with the requisite knowledge and skills, for instance, critical thinking, productive employment, and problem-solving, that would be relevant in the 21<sup>st</sup> century. Rwandan citizens were enthusiastic about seeing the potential outcomes of this innovation for the Rwandan community (Karanja, 2016). The CBC was expected to equip students with adequate skills to solve problems that may be encountered on the job. It was also expected to provide the competencies required for the young people in Rwanda to become self-employed after finishing their secondary school education (Kafyulilo et al., 2013) and bridge the gap between secondary school and the workplace (Johnstone & Soares, 2014). Understanding the implementation of CBC is valuable to practitioners and to the larger body of research in the curriculum. As much as research exists, none of the research endeavors have discussed the

implementation of CBC in the bordering districts of Rwanda, particularly in the western district of Rubavu. Hence, the current study was carried out to test the influence of teacher preparedness and the availability of teaching materials on the implementation of CBC in the selected region.

### **Theoretical Foundation**

Rogan and Grayson (2003) suggested a theory for curriculum implementation based on three constructs—profile of implementation, outsider influence, and capacity to innovate. According to them, the subconstructs of the capacity to innovate include physical resources, learner factors, teacher factors, and the school ecology and management. Elaborating on the construct's capacity to innovate, Rogan and Aldous (2005) described the best-case scenario for curriculum implementation as the presence of adequate teaching resources and teacher willingness to change, improvise, and collaborate, among other critical factors. However, teachers' inability to understand or resistance to accept changes in curriculum results in ineffective implementation (Pintó, 2005). The social cognitive theory also posits that individuals learn from their environment while participating in its creation (Bandura, 1986). Extending this idea to curricular reform, the school environment, resulting from teachers' active participation, directly influences their efficacy and instrumentality toward reform (Min, 2019).

Implementation fidelity, which is the degree to which the implemented

intervention meets its intended standard, is a vital concept in improving change outcomes (Clayback et al., 2023). Adequate resources and support must be provided to improve fidelity in implementing curriculum change (Clayback et al., 2023; Forman et al., 2009). Clearing these impeding factors appears promising in adopting and implementing a curriculum.

### **Teacher Preparedness**

Teacher preparedness is a prime factor in implementing a new curriculum. There is a need to develop new teacher training methods to implement CBC successfully. These methods ought to take into consideration the rapid and constant innovations in the information and communication technology field. According to Cator et al. (2014), teacher training programs should incorporate the core principles of CBC. In other words, in-service teachers should be given some level of autonomy when it comes to place, time, and the pace at which they implement the ideas of CBC. In addition, in-service teachers should be allowed ample liberty to align their personal teaching goals with those assigned by the government and the institution they serve.

CBC is defined by Baker (2015) as a curriculum that assesses the learning of the students based on their abilities as opposed to the theoretical knowledge they possess. Gruppen (2015) explains that the students in CBC should be able to apply the skills acquired practically. In addition to that, the practical skills and the ability of the students should match the specific

job market requirements. In this learner-centered curriculum, one of the roles of the teachers is to implement the curriculum in the classroom. It has been seen that the process of implementing a new curriculum sometimes passes through various steps. This was the case in Germany, where the implementation of a new CBC for general practice was done by following five steps (Steinhaeuser et al., 2013). The idea of implementing the curriculum by following different phases is also true in Rwanda, where CBC has been implemented progressively until 2018 (Ministry of Education, 2015).

The implementation of any curriculum should follow the education mission statement released by the government and the school calendar provided. It is then the responsibility of the teachers to develop a yearly plan, semester plan, monthly plan, and daily lesson plan that respect the syllabus (Arafah & Sihes, 2015). The reason for such clearly defined hierarchical planning lies in the fact that students graduating from a particular curriculum will face the challenges of job market requirements (Backes et al., 2015). Hence, the efficacy of the implementation will have a direct bearing on the graduating students' success in the job market. However, the preparedness of the teachers can impact its receptibility and consequent implementation (Momanyi & Rop, 2020).

The preparation of the teachers to embrace their careers is the key to success in teaching. Student achievement is related to the preparation of teachers to start



teaching. Teacher preparedness reflects an internal feeling of teachers showcasing how prepared they are to teach a new skill (Murphy-Pope, 2013). Thus, in this study, teachers' preparedness ought to be measured by classroom management, use of diverse instructional strategies, knowledge of the subject matter, use of computers in classroom instruction, and assessment of students (Arafah & Sihes, 2015; Murphy-Pope, 2013).

### **Availability of Teaching Materials**

CBC is a curriculum that requires many teaching and learning resources. Among several others, teaching materials are a notable factor contributing to successful learner performance (Sephania et al., 2017). In classrooms, learning activities and resources are vital for teaching and learning to yield an adequate educational response (Carrete-Marín & Domingo-Peñafiel, 2022). In the countries where CBC was developed and implemented, a lack of textbook teaching guides is one of the major problems that was encountered. In Indonesia, according to the study conducted by Suyanto (2017), CBC started at a time when the schools were not yet ready to implement it. The lack of readiness was characterized by the absence of school policies that could have helped school leaders in managing the implementation, the lack of preparation of teachers, and the unavailability of textbooks for teachers and students at all schools.

To be well organized, teachers need some written textbooks that aid in classroom

activities and are sometimes prepared and distributed by curriculum managers. In Rwanda, the Ministry of Education, which governs the Rwanda Education Board, prepares and distributes the national curriculum syllabuses to all schools in Rwanda. The implementation of CBC is measured by the authentic assessment of teaching methods, teachers, and students (Kouwenhoven, 2010; Muraraneza & Mtshali, 2018; Muraraneza et al., 2017). Teaching materials expected to be used in schools to better implement CBC include books, teaching aids, computers, libraries, and CD ROMs. Yet, a study has shown that in Tanzania, the lack of teaching materials, such as history textbooks, is a hindrance to the implementation of CBC (Namamba & Rao, 2017). The result of this study corroborates the initial challenges in the implementation of CBC due to the lack of teaching materials (Mbarushimana & Kuboja, 2016).

### **Teacher Preparedness and Implementation of Competence-based Curriculum**

Every teacher needs to be prepared to embrace the challenges innate to the teaching profession. The preparation of teachers starts during their training (pre-service training) programs and continues while they are teaching (in-service training). Many studies link teacher preparedness to curriculum implementation (Achimugu, 2016; Ali & Zahadi, 2014; Simiyu, 2019), demonstrating that the preparation of teachers is a crucial factor in implementing

a curriculum such as CBC. Implementing CBC requires teachers to be aware of the core principles of CBC, which are mostly emphasized in in-service training.

Every teacher needs consistent training and orientation when implementing a new curriculum or teaching new subject content (Papay & Kraft, 2015). Students' achievement depends highly on the teachers' actual preparedness and perceived preparedness to deliver the instruction (Murphy-Pope, 2013). However, teachers who implement CBC in the classroom may face problems that compromise implementation. For instance, in Kenya, while studying the determinants of implementing a chemistry curriculum, Muse et al. (2019) demonstrated that the heavy workload of teachers hinders the perfect implementation of CBC in chemistry subjects. Further, it was found that preparing teachers through frequent and timely training could yield better results in the implementation of CBC (Mogere & Mbataru, 2023). Hence, it may be deduced that the preparedness of teachers can enhance the quality of their working environment as well as other logistic factors. Bandura (1986), in his social cognitive theory, posited that individuals learn not only through their own experiences but also through their interaction with their environment. More recently, it was found that nurturing a climate of trust among teachers was vital for schools' success (García-Martínez et al., 2021).

Moreover, there were perceived benefits of not imposing these collaborations but rather leaving them to teachers' autonomy

(Muckenthaler et al., 2020). For instance, it is possible that when teachers feel confident about the implementation of CBC and readily implement it, they create an environment that embraces the implementation of CBC. On the contrary, when teachers are not ready to implement CBC, they potentially create an environment that is negative toward the implementation of the curriculum. Applying the social cognitive theory to teacher preparedness, we may note that teachers are not only motivated to take action by their own experiences but are also shaped by the nature of their environment. Consequent to these ideas, the following hypothesis was formulated:

H1: There is a positive relationship between teacher preparedness and the implementation of a competence-based curriculum.

### **Availability of Teaching Materials and Implementation of Competence-based Curriculum**

In Africa, CBC first started in South Africa, one of the most developed countries on the continent, before extending to Tanzania, Ethiopia, Mozambique, and later Rwanda (Paulo & Tilya, 2014; Tilya & Mafumiko, 2010; Victorini & Wambiya, 2016). One of these countries' biggest challenges in the implementation process was the lack of teaching materials. A study conducted in Tanzania and South Africa (Victorini & Wambiya, 2016) showed that most of the secondary schools do not have sufficient teaching materials to implement CBC. In recent years, teaching materials have been

largely available in digitized forms. Kihiza et al. (2016) demonstrated the challenges related to the use and integration of information, communication, and technology in schools in Tanzania. The challenges that compromise the implementation of CBC are mostly related to the lack of infrastructure that can accommodate the CBC teaching model.

The self-determination theory (Ryan & Deci, 2000) highlights competence, relatedness, and autonomy as essential elements for an individual's well-being. Moreover, the feeling of competence in teachers could entail their ability to access and use essential teaching materials, which consequently shapes their intrinsic motivation. Additionally, when individuals lack a sense of relatedness to their peers and work environment, they may experience low levels of motivation to engage, accompanied by potential burnout (Buonomo, 2022). Further, in terms of autonomy, teachers may be more likely to successfully implement CBC through meaningful collaborations if it were not imposed on them but rather introduced as a system that they would understand and accept to be valuable (Muckenthaler et al., 2020). On the contrary, it is also likely that the successful implementation of CBC can occur when supervisors provide the needed resources and constantly monitor the process of curriculum implementation (Benson & Njuguna, 2023).

A study conducted in China by Chen and Wei (2015) showed that implementing CBC in the classroom is highly dependent

on the teachers' interaction with the teaching materials. The developed countries invest money in the educational sector and provide the schools with teaching materials. The richer the country, the better the educational system. Additionally, educational administrators must ensure that learning resources, particularly those pertaining to practical work and other teaching aids, are prioritized (Benson & Njuguna, 2023). Another study noted the importance of access to the internet connection in the implementation of CBC among developed countries where teaching is associated with the use of a computer and internet connection, which makes the educational processes comfortable for teachers and students (Griffith & Lim, 2014). Furthermore, sometimes, the lack of adequate facilities also leads to teachers resorting to the teacher-centered approach, for instance, a teacher's responsibility to handle a large number of students in an institution that lacks proper infrastructure, like laboratories (Tabaro, 2018). In the absence of adequate teaching resources, the adoption and implementation of CBC appear improbable. Therefore, the second hypothesis for this study was formulated as below:

H2: There is a relationship between the availability of teaching materials and the implementation of a competence-based curriculum.

The literature review revealed that teacher preparedness and the availability of teaching materials were hypothesized to influence the implementation of a

competence-based curriculum. Particularly in light of the theories discussed previously, the third hypothesis for this study was formulated.

H3: There is a significant influence of teacher preparedness and competence-based curriculum on the implementation of the competence-based curriculum.

The conceptual model for this study, developed based on the three hypotheses and illustrated in Figure 1, seeks to answer the following research questions through its findings.

1. What is the state of teacher preparedness and availability of teaching materials in the context of the study?
2. What is the statistical relationship between teacher preparedness, the availability of teaching materials, and the implementation of a competence-based curriculum?
3. What is the influence of teacher preparedness and availability of teaching materials on the implementation of a competence-based curriculum?

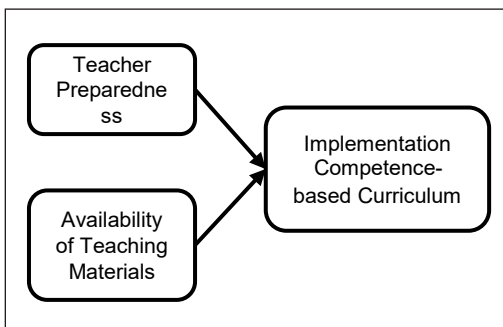


Figure 1. Conceptual model of the study

## METHODOLOGY

This study sought to test the relationships between the selected variables and, therefore, deemed quantitative methods to be fit for this evaluation (Creswell & Creswell, 2018). The use of numerical data collected using reliable survey instruments is typical of quantitative methods. A deductive approach was used to conduct this study. Two principal theories are generally applicable when conducting research using the deductive approach. The first is confirmatory research, in which scientists test hypotheses formulated based on prior research against empirical data. Confirmatory research validates hypotheses or disproves them. The second exploratory research is, by definition, an investigation into the data, which begins with the collection of data and proceeds with the investigation to develop hypotheses and theories grounded in the insights gained from the data. In this study, hypotheses were first formulated based on prior studies and then tested using data collected from the selected sample. Accordingly, a survey was administered to the selected sample to collect the data for this study, which was analyzed using statistical tools. Subsequently, the results interpreted are presented in adherence to quantitative methods.

### Instrumentation

The data was collected using a survey questionnaire as an instrument. The survey was comprised of two parts: the first part collected demographic information, and

the second part included items measuring the perception of teacher preparedness, availability of teaching materials, and the implementation of CBC. The scale proposed by Murphy-Pope (2013) for measuring the perception of teacher preparedness, which included a total of 15 items, was used in this study. The perception of the availability of teaching materials was measured using a scale of 15 items proposed by García-López et al. (2018). Further, García-López et al.'s (2018) scale of 14 items was used to measure the implementation of CBC. A pilot test was carried out with 20 respondents to ensure the reliability of the instruments. The reliability of the instrument was determined based on Cronbach's alpha score of 0.7 (Bolarinwa, 2015). The pilot test results suggested the instrument to be reliable, with Cronbach's alpha scores of 0.77 for teacher preparedness, 0.75 for availability of teaching materials, and 0.79 for implementation of CBC.

### Participants

Probability sampling is typically the type of sampling design selected for quantitative studies (Best & Kahn, 2006) because it allows every member of the population to have an equal chance of being part of the sample. Therefore, teachers were recruited using randomized sampling methods for this study. The sample size was determined based on Yamane's formula, which is suitable for surveys applicable to a finite population (Uakarn et al., 2021). As a result, 207 teachers from schools in the

Rubavu district of Rwanda were chosen as participants in this study, according to the distribution presented in Table 1.

## FINDINGS

### Perceptions of Teachers

The first research question, considering the perceptions of the secondary school

Table 1  
*Sample and demographic distribution*

Type of School	No. of Schools	Estimated population	Sample
Private Schools	15	162	86
Public Schools	11	187	121
Total	26	349	207
		<b>Frequency</b>	<b>Percentage (%)</b>
<b>Gender</b>			
Male		145	70.1
Female		62	29.9
<b>Age</b>			
29 & below		51	24.6
30–39		78	37.7
40–49		53	25.6
50 & above		25	12.1
<b>Educational attainment</b>			
High school		13	6.3
Diploma		30	14.5
Bachelors		148	71.5
Master's & above		16	7.7
<b>Years of service</b>			
Below 10		133	64.3
11–20		50	24.1
Above 20		24	11.6
<b>School status</b>			
Public		38	18.3
Semi-public		127	61.4
Private		42	20.3

teachers in the Rubavu district regarding the study variables, is framed as follows: “What is the state of teacher preparedness and availability of teaching materials in the context of the study?” The results are presented according to the responses on each variable, reflecting their perception of each item in terms of their agreement or disagreement with the statements.

### Perception of Teachers on Teacher Preparedness

The secondary school teachers were asked to respond by encircling the relevant

number in the questionnaire (Likert scale) that describes how they perceived teacher preparedness to implement the CBC in the classroom. The responses were gathered through a Likert scale ranging from 1 to 5. Each item was given one point, and the mean score was determined. Table 2 summarizes the responses.

The overall mean score was  $M = 3.502$ , with  $SD = 0.7319$ . This result was interpreted as a high perception of their teachers' preparation for implementing CBC in the classroom. The result suggests that the secondary school teachers in the Rubavu

Table 2  
*Perception of teachers on teacher preparedness*

Items	<i>M</i>	<i>SD</i>	<i>SR</i>
The system of competence-based learning promotes increased teamwork.	3.84	1.15	Agree
I use a variety of instructional methods to teach.	3.82	1.03	Agree
I am prepared to teach my subject matter by using a competence-based curriculum.	3.72	1.12	Agree
I select and adapt curriculum and instructional materials.	3.67	0.97	Agree
I am prepared to assess the competencies of my students.	3.64	1.02	Agree
The new challenge of this teaching-learning model has motivated me to investigate new technologies and methods.	3.64	1.02	Agree
The new learning system requires greater coordination of efforts between teachers.	3.64	1.13	Agree
I feel prepared to use this curriculum model successfully.	3.58	1.01	Agree
The new model requires a significant increase in course preparation time.	3.57	1.14	Agree
When I first taught using the competence-based curriculum, I was well prepared to handle a discipline situation.	3.47	1.14	Undecided
I attended training organized by the Rwanda Education Board before the implementation of a competence-based curriculum.	3.32	1.29	Undecided
When I first taught using the competence-based curriculum, I was well prepared to handle a range of classroom management issues.	3.29	1.15	Undecided
I learned how to teach using the competence-based model in a teacher training college.	3.14	1.31	Undecided
There is greater difficulty assessing students with this learning system.	3.09	1.15	Undecided
I use a computer in my classroom instruction.	3.08	1.27	Undecided
Overall mean	3.50	0.73	Agree

*Note.* Legend: M= Mean, SD= Standard Deviation, SR= Scaled Response

district perceived themselves as prepared to use the competence-based learning system to promote teamwork in the classroom ( $M = 3.84, SD = 1.154$ ). In addition, these teachers are prepared to use a variety of instructional methods ( $M = 3.82, SD = 1.027$ ).

There is a high score of teachers' preparedness on the subject matter using CBC ( $M = 3.72, SD = 1.123$ ). However, some teachers (16.7%) still had difficulties assessing the students with the CBC learning system ( $M = 3.09, SD = 1.15$ ). Although teachers are well prepared to teach using the CBC model, some of them (15.2%) indicated that they do not use computers in the classroom ( $M = 3.08, SD = 1.27$ ). In addition to a lack of computer skills, the secondary school teachers in the Rubavu district scored average on the items of learning how to teach using the CBC method in college before they started their teaching

career ( $M = 3.14, SD = 1.305$ ). This means that the teachers are undecided on whether they must or must not learn how to teach using the CBC model.

**Perception of Teachers on Availability of Teaching Materials**

The respondents answered by checking how they perceived their access to relevant teaching materials to assess the availability of teaching materials. Table 3 presents the results in the form of a Likert scale ranging from 1 to 5. The overall mean score was  $M = 3.102$  and  $SD = 0.645$ , which is interpreted as the average perception of teachers on the availability of teaching materials. The secondary school teachers confirmed that they have internet connections in their respective schools ( $M = 3.52, SD = 1.272$ ). This validation regarding the perception of access to the internet connection may be due

Table 3  
*Perception of teachers on the availability of teaching materials*

Item	M	SD	SR
My school has access to an internet connection.	3.52	1.27	Agree
The new curricular model requires the teacher to diversify the types of learning resources used.	3.51	1.04	Agree
The application of competence-based education has allowed me to explore beneficial internet resources.	3.48	1.14	Undecided
My school has a computer and projector that help me teach using a competence-based curriculum model.	3.27	1.16	Undecided
The lack of school guide material makes me go back to the content-based curriculum.	3.27	1.12	Undecided
The school has a complete mathematical set to teach geometry.	3.26	1.04	Undecided
My school has enough library resources.	3.23	1.10	Undecided
Some students do not have textbooks to use in the classroom.	3.21	1.26	Undecided
I have all the required textbooks I need for the subject I teach to deliver the instruction.	3.05	1.17	Undecided
Rwanda Education Board provides schools with teaching materials before teachers implement a competence-based curriculum.	2.86	1.24	Undecided

Table 3 (continue)

Item	M	SD	SR
Each classroom I teach has at least one computer.	2.85	1.34	Undecided
The classroom materials available are suitable for competence-based teaching.	2.84	1.19	Undecided
The economic resources available at my school are enough to implement a competence-based curriculum.	2.79	1.15	Undecided
The number of pupils per class is suitable for competence-based teaching.	2.71	1.23	Undecided
I allow students to submit assignments via the Internet.	2.68	1.30	Undecided
Overall mean	3.10	0.65	Undecided

Note. Legend: M= Mean, SD= Standard Deviation, SR= Scaled Response

to the government of Rwanda's promotion of using technology in all areas of activities, including education (Ministry of Education, 2015).

In addition, the secondary school teachers of the Rubavu district are required to diversify the learning resource information provided to the students to vary the reference resources of learning materials ( $M = 3.51$ ,  $SD = 1.042$ ). CBC allows teachers to explore beneficial resources ( $M = 3.48$ ,  $SD = 1.143$ ). Even if most of the schools have access to an internet connection, the perception of the participants in this study was average on the item that seeks to understand if the schools have enough resources to facilitate the implementation of CBC ( $M = 2.79$ ,  $SD = 1.145$ ). Further, the participants' perceptions were average on the number of students in the classroom, which is either suitable or not suitable for the implementation of CBC ( $M = 2.71$ ,  $SD = 1.226$ ). The result shows that teachers do not generally allow the students to submit their assignments via the Internet ( $M = 2.68$ ,  $SD = 1.301$ ), which generated the interpretation of the average perception of online submission of assignments.

### Relationship Between Teacher Preparedness, Availability of Teaching Materials and the Implementation of a Competence-based Curriculum

Research question 2 stated, "How are teacher preparedness and availability of teaching materials related to the implementation of a competence-based curriculum?" The responses were analyzed after conducting a Spearman correlation test using SPSS. The results summarized in Table 4 indicate that all the independent variables are positively correlated with the dependent variable and even among each other.

There is a strong positive correlation between teacher preparedness and implementation of CBC ( $r = 0.567^{**}$ ,  $n = 336$ ,  $p < 0.01$ ). Further, the result indicates a moderately positive relationship between teaching material availability and implementation of CBC ( $r = 0.445^{**}$ ,  $n = 336$ ,  $p < 0.01$ ). Consequently, hypotheses 1 and 2 were accepted.

The positive correlation between the independent variables and the dependent variable implies that when the values of the independent variables go up, the value of



Table 4  
*Relationship among the variables*

	1	2	3
1. Teacher Preparedness	1		
2. Availability of Teaching Materials	0.401**	1	
3. Implementation of CBC	0.567**	0.445**	1

Note. \*\*=Correlation is significant at the 0.01 level (2-tailed)

the dependent variable also goes up. This suggests that the greater the government of Rwanda’s desire to implement CBC, the greater the need for the Rwanda Education Board to prepare teachers to teach using CBC. Additionally, more teaching materials should be available in schools to enable teachers to utilize them and contribute to the successful implementation of CBC.

**Influence of Teacher Preparedness and Availability of Teaching Materials on the Implementation of Competence-based Curriculum**

A regression analysis was carried out to test the influence of the independent variables—teacher preparedness and availability of teaching materials—on the implementation

of a competence-based curriculum. The results of this test are presented in Table 5.

The regression test analysis produced a model in which teacher preparedness and the availability of teaching materials had a significant influence on the implementation of a competence-based curriculum ( $p=0.000$ ). Additionally, the results indicate that the independent variables—teacher preparedness and availability of teaching materials—explain 37% of the variance in the implementation of a competence-based curriculum ( $r^2=0.37$ ,  $F(2.205=60.448$ ,  $p=0.000$ ).

Therefore, the third hypothesis (H3) was also accepted. The model further indicates that out of the two independent variables, teacher preparedness ( $\beta=0.517$ ,  $t(207)=8.15$ ,

Table 5  
*Regression analysis test result*

Model Summary				
Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	0.609 <sup>a</sup>	0.371	0.365	0.5804

Note. a. Predictors: (Constant), Teaching Materials Availability, Teacher Preparedness

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	40.731	2	20.366	60.448	0.000 <sup>b</sup>
	Residual	69.067	205	0.337		
	Total	109.798	207			

Note. a. Dependent Variable: Implementation of competence-based curriculum; b. Predictors: (Constant), Teaching Materials Availability, Teacher Preparedness

Table 5 (continue)

Coefficients		Unstandardized		Standardized		
		Coefficients		Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.202	0.211		5.707	0.000
	Teacher Preparedness	0.463	0.057	0.517	8.153	0.000
	Teaching Materials Availability	0.173	0.070	0.157	2.476	0.014

Note. a. Dependent Variable: Implementation of competence-based curriculum

The findings of this study resulted in the following regression equation:

$$y = 1.202 (a) + 0.517 (\beta TP) + 0.157 (\beta ATM)$$

Where Y = Implementation of Competence Based Curriculum (dependent variable);

a = constant value or Y-intercept;

$\beta TP$  = teacher preparedness (independent variable);

$\beta ATM$  = availability of teaching materials (independent variable)

$p < 0.005$ ) had a greater influence on the implementation of a competence-based curriculum, suggesting that 67% of the unexplained variance may be attributed to other variables excluded from this study, leaving room for future investigation. These findings substantiated teacher preparedness and the availability of teaching materials as factors explaining the implementation of a competence-based curriculum in Rwanda.

## DISCUSSION

This study was carried out to understand the implementation of a competence-based curriculum in Rwanda in a selected country district, namely Rubavu. It was found that the perceived preparedness of teachers was high, while the perception of access to relevant resources was average. However, both variables contributed significantly to the implementation of the CBC. Making relevant resources available to stakeholders is central to the successful implementation of educational policy (Esongo, 2017). One

of the most basic aids in curricular change is the availability of textbooks, which is often the first step in implementing the change (Gracin & Matić, 2021). However, the mere availability of textbooks for teachers does not guarantee successful teaching and learning. In fact, Carrete-Marín and Domingo-Peñafiel (2022) pointed out that the way teachers utilize the textbook and ensure its adaptation to the learning situation is of greater importance. In support of these findings, the current study found that teachers' perception was average regarding the availability of teaching materials, potentially posing challenges in implementing the CBC.

In the recent past, the greatest factor in the advancement of any sector has been the integration of technology into all operations. Technology competence is also recognized as a 21st-century skill, and schools need to help teachers nurture this skill for effective teaching-learning (Jung & Ottenbreit-Leftwich, 2020; Yılmaz, 2021).

Evidently, the educational sector has also seen tremendous leaps in the integration of technology into the curriculum. As such, teachers need access to adequate resources, including technology infrastructure, which seems vital to curriculum implementation (Ghunu, 2022). In support, this study found that teachers acknowledged the provision of an internet connection, but the adequate technology infrastructure could be improved further. The results of the studies by Mentz and Mentz (2003) and Suyanto (2017) found that internet connectivity was limited across many countries in Africa. This challenge appears to exist in rural Rwanda even to date despite its satellite launch in 2019, which was revealed during the COVID-19 pandemic (Uwizeyimana, 2022). Uwizeyimana (2022) discussed the challenge of merely 30% of schools in Rwanda being equipped with internet access.

Further, Murithi and Yoo (2021) noted that while basic technology literacy was apparent, facilities enabling the integration of technology for curriculum implementation were inadequate in Kenyan public primary schools. They further highlighted the need for sufficient pedagogical knowledge to successfully implement the curriculum. The results of this study indicate that despite being generally prepared to teach, the participants were unfamiliar with the mechanism of using the CBC. These results agree with the results of a study conducted by Kafyulilo et al. (2013), where they found that pre-service teachers had difficulties in preparing a lesson plan according to CBC,

even though the pre-service teachers were in their last year of training. Likewise, the result of the present study indicates that some teachers want in-service training to increase their competence in teaching by using CBC. Hence, just as much as the infrastructure is made available, pedagogical knowledge as a resource must also be offered to aid in the implementation of a competence-based curriculum in Rwanda, as evidenced in this study.

Teachers have been identified as a vital factor in the success of any innovative educational endeavor (Al-Awidi & Aldhafeeri, 2017). A study carried out in Kenya assessing the teachers' preparedness in the implementation of CBC highlighted the need for teacher training in pedagogy and assessments (Momanyi & Rop, 2020). This need was verified by the current study, which found that the participants were relatively unfamiliar with the CBC implementation. The results of the participant's responses to the teacher preparedness items in the survey indicate that they lacked adequate training on the implementation of CBC. Additionally, the extent to which teachers are supported in terms of conducive workloads and timely training—allowing ample planning time—can also impact curriculum decisions (Fu & Sibert, 2017; Mogere & Mbataru, 2023; Muse et al., 2019). Another interesting finding in this study was that despite teachers feeling prepared to implement CBC, they were not prepared to handle in-class situations. A potential challenge in the shift towards CBC could be attributed to the teachers' convenience of practicing the

teacher-centered approach due to the dearth of knowledge of CBC implementation (Mathias et al., 2023; T. Nsengimana et al., 2017). In fact, it was noted by Otara et al. (2019) that although teachers in Rwanda adopted the constructivist approaches, teacher-centeredness was still predominant. The same was the case in its neighboring country, Burundi, where teacher-centered approaches were still in use (Niyukuri, 2020; Sibomana et al., 2021). The findings of this study, in concurrence with past research, imply that teacher training in the implementation of CBC is vital to successfully enabling the shift. Further, in-service training could induce a more willing transition towards the discovery methods of pedagogy characteristic of the CBC. In essence, equipping teachers with pedagogical capabilities and adequate resources are potential determinants of the success of CBC implementation, as confirmed in this study.

Furthermore, this study found that the availability of teaching materials was relevant to the implementation of CBC, thus supporting the findings of previous studies (Esongo, 2017; Mbarushimana & Kuboja, 2016; Namamba & Rao, 2017; V. Nsengimana, 2020; Pale & Amukowa, 2020). Teachers may still need to learn how to use certain teaching tools, such as computers and projectors, for instructional purposes. Teachers' tendency to make their tasks easy justifies in-service training in the new programs or teaching methods (Simiyu, 2019). Additionally, this study found that teacher preparedness was a factor affecting

the implementation of CBC, which supports similar findings of past studies (Alkandari, 2023; Curry & Docherty, 2017; Mogere & Mbataru, 2023; Momanyi & Rop, 2020). As such, this study provided evidence for the substantial impact of teacher preparedness and the availability of teaching materials on the successful implementation of CBC.

## CONCLUSION

This study aims to investigate how the availability of teaching materials and teacher preparedness influenced the implementation of a competence-based curriculum. It was found that both independent variables influenced the dependent variable positively and significantly. From the findings, we can infer that the success of a policy greatly depends on the environment created to support its implementation. This study sought to understand the curriculum implementation policy in Rwanda by testing the influence of the selected variables on the implementation of CBC. Consequently, it provided evidence for the significance of support in the form of providing adequate teaching materials and nurturing teacher preparedness for the success of competence-based curriculum policy implementation. Failure to implement policies to improve practice is not uncommon, particularly in the absence of support systems (Hudson et al., 2019). Adequate support typically aids in narrowing the policy implementation gap (Makinde, 2005). As such, implications for theory and practice may be drawn. Theoretically, this study adds to the literature on educational policy implementation by

extending it to the context of this study. Further, practical implications suggest that a newly formulated policy can result in its successful implementation when all stakeholders are brought on board. In this study, it was noted that the teacher participants were largely undecided on their preparedness for the implementation of CBC. Therefore, one of the implications for practice implies making deliberate and mindful efforts toward providing a conducive environment that includes adequate resources and proper training for the success of educational reforms.

Just like other research studies, this study is not short of limitations. Firstly, the design employed in this study allows for the use of self-reported responses to a survey questionnaire, which is ineffective in exploring concepts in depth. As such, conducting a qualitative study in a similar context is recommended for future research to add more depth to the understanding of the implementation of CBC. Secondly, since the present study used a relatively small sample size, other studies could also consider a larger sample size to further support or refute the findings of this study. Additionally, it may be recommended to policymakers regarding competence-based curriculum implementation to ascertain teachers' preparedness through ample training and support the implementation by making relevant resources available and accessible. The various implications of CBC may be effectively disseminated to all stakeholders to ensure that they willingly embrace its implementation.

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## REFERENCES

- Achimugu, L. (2016). Factors affecting the effective implementation of senior secondary education chemistry curriculum in Kogi State, Nigeria. *International Journal of Scientific and Research Publications*, 6(5), 562-566.
- Al-Awidi, H. M., & Aldhafeeri, F. M. (2017). Teachers' readiness to implement digital curriculum in Kuwaiti schools. *Journal of Information Technology Education. Research*, 16, 105-126. <https://doi.org/10.28945/3685>
- Alı, S. K. B. S., & Zahadi, M. A. (2014). Teachers' planning and preparation of teaching resources and materials in the implementation of form 4 physical education curriculum for the physical fitness strand. *Turkish Journal of Sport and Exercise*, 16(1), 67-71. <https://dergipark.org.tr/en/pub/tsed/issue/21501/230599>
- Alkandari, K. (2023). Transformation to competency-based curriculum: Readiness and self-efficacy among Islamic studies teachers in Kuwait. *Curriculum Perspectives*, 43(1), 67-79. <https://doi.org/10.1007/s41297-022-00179-3>
- Arafah, H., & Sihes, A. J. B. (2015). Competencies for the classroom instructional designer. *Education*, 3(2), 16-20. <https://doi.org/10.11648/j.ijssedu.20150302.11>
- Backes, B., Holzer, H. J., & Velez, E. D. (2015). Is it worth it? Postsecondary education and labor market outcomes for the disadvantaged.

- Journal of Labor Policy*, 4, Article 1. <https://doi.org/10.1186/s40173-014-0027-0>
- Baker, R. B. (2015). *The student experience: How competency-based education providers serve students*. American Enterprise Institute. <https://www.aei.org/research-products/report/the-student-experience-how-competency-based-education-providers-serve-students/>
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.
- Benson, M. F., & Njuguna, J. (2023). Effects of monitoring of teaching and learning on the implementation of competency-based curriculum (CBC) in early childhood development (ECD) centres in Meru Central Sub-County. *Asian Journal of Education and Social Studies*, 49(3), 120-136. <https://doi.org/10.9734/ajess/2023/v49i31141>
- Best, J. W., & Kahn, J. (2006) *Research in education*. Prentice Hall of India Pvt. Ltd.
- Bolarinwa, O. A. (2015). Principles and methods of validity and reliability testing of questionnaires used in social and health science researches. *Nigerian Postgraduate Medical Journal*, 22(4), 195-201. <https://doi.org/10.4103/1117-1936.173959>
- Buonomo, I., Pansini, M., Cervai, S., & Benevene, P. (2022). Compassionate work environments and their role in teachers' life satisfaction: The contribution of perceived collective school performance and burnout. *International Journal of Environmental Research and Public Health*, 19(21), Article 14206. <https://doi.org/10.3390/ijerph192114206>
- Carrete-Marín, N., & Domingo-Peñañiel, L. (2022). Textbooks and teaching materials in rural schools: A systematic review. *CEPS Journal*, 12(2), 67-94. <https://doi.org/10.26529/cepsj.1288>
- Cator, K., Schneider, C., & Ark, T. V. (2014). *Preparing teachers for deeper learning: Competency-based teacher preparation and development*. Digital Smart. <https://digitalpromise.org/wp-content/uploads/2014/05/FINAL-Preparing-Teachers-for-Deeper-Learning-Paper-1.pdf>
- Chen, B., & Wei, B. (2015). *Investigating the factors that influence chemistry teachers' use of curriculum materials: The case of China* (EJ1064037). ERIC. <https://files.eric.ed.gov/fulltext/EJ1064037.pdf>
- Clayback, K. A., Williford, A. P., & Vitiello, V. E. (2023). Identifying teacher beliefs and experiences associated with curriculum implementation fidelity in early childhood education. *Prevention Science*, 24(1), 27-38. <https://doi.org/10.1007/s11121-022-01414-z>
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approach* (5th ed.). SAGE.
- Curry, L., & Docherty, M. (2017). Implementing competency-based education. *Collected Essays on Learning and Teaching*, 10, 61-73. <https://doi.org/10.22329/celt.v10i0.4716>
- Esongo, N. M. (2017). Correlation between the availability of resources and efficiency of the school system within the framework of the implementation of competency-based teaching approaches in Cameroon. *Journal of Education and Practice*, 8(2), 82-92.
- Forman, S. G., Olin, S. S., Hoagwood, K. E., Crowe, M., & Saka, N. (2009). Evidence-based interventions in schools: Developers' views of implementation barriers and facilitators. *School Mental Health*, 1, 26-36. <https://doi.org/10.1007/s12310-008-9002-5>
- Fu, Y., & Sibert, S. (2017). Teachers' perspectives: Factors that impact implementation of integrated curriculum in K-3 classrooms. *International Journal of Instruction*, 10(1), 169-186. <https://doi.org/10.12973/iji.2017.10111a>

- García-López, L. M., Gutiérrez, D., Pastor, J. C., & Romo, V. (2018). Validity and reliability of a questionnaire on primary and secondary school teachers' perception of teaching a competence-based curriculum model. *Journal of New Approaches in Educational Research*, 7(1), 46-51. <https://doi.org/10.7821/naer.2018.1.255>
- García-Martínez, I., Montenegro-Rueda, M., Molina-Fernández, E., & Fernández-Batanero, J. M. (2021). Mapping teacher collaboration for school success. *School Effectiveness and School Improvement*, 32(4), 631-649. <https://doi.org/10.1080/09243453.2021.1925700>
- Ghunu, N. (2022). The challenges of remote area elementary schools in thematic curriculum implementation. *International Journal of Instruction*, 15(2), 19-36. <https://doi.org/10.29333/iji.2022.1522a>
- Gracin, D. G., & Matić, L. J. (2021). Use of textbooks and other resources in curriculum reform. A longitudinal case study. *ZDM—Mathematics Education*, 53(6), 1373-1385. <https://doi.org/10.1007/s11858-021-01271-0>
- Griffith, W. I., & Lim, H. Y. (2014). Introduction to competency-based language teaching. *MEXTESOL Journal*, 38(2), 1-8.
- Gruppen, L. D. (2015). Competency-based education, feedback, and humility. *Gastroenterology*, 148(1), 4-7. <https://doi.org/10.1053/j.gastro.2014.11.021>
- Hudson, B., Hunter, D., & Peckham, S. (2019). Policy failure and the policy-implementation gap: Can policy support programs help? *Policy Design and Practice*, 2(1), 1-14. <https://doi.org/10.1080/25741292.2018.1540378>
- Johnstone, S. M., & Soares, L. (2014). Principles for developing competency-based education programs. *Change: The Magazine of Higher Learning*, 46(2), 12-19. <https://doi.org/10.1080/00091383.2014.896705>
- Jung, J., & Ottenbreit-Leftwich, A. (2020). Course-level modeling of preservice teacher learning of technology integration. *British Journal of Educational Technology*, 51(2), 555-571. <https://doi.org/10.1111/bjet.12840>
- Kafyulilo, A. C., Rugambuka, I. B., & Moses, I. (2013). Implementation of competency-based teaching in Morogoro Teachers' Training College, Tanzania. *Makerere Journal of Higher Education*, 4(2), 311-326. <https://doi.org/10.4314/majohe.v4i2.13>
- Karanja, M. (2016, April 1). Rwanda Education Board: New competence-based curriculum is aligned with national development goals. *The New Times*. <http://www.newtimes.co.rw/section/advertorial/744/>
- Khoo, S. M., Lahiri, M., Huggan, P. J., Archuleta, S., Olszyna, D. P., Goh, W. P., & Ho, K. Y. (2014). When traditional model meets competencies in Singapore: Beyond conflict resolution. *Annals Academy of Medicine, Singapore*, 43, 544-549.
- Kihoza, P., Zlotnikova, I., Bada, J., & Kalegele, K. (2016). Classroom ICT integration in Tanzania: Opportunities and challenges from the perspectives of TPACK and SAMR models. *International Journal of Education and Development using ICT*, 12(1), 107-128.
- Kouwenhoven, W. (2010). Competence-based curriculum development in higher education: Some African experiences. In M. Cantrell, R. Kool, & W. Kouwenhoven (Eds.), *Access & expansion: Challenges or higher education improvement in developing countries* (pp. 125-146). Vrije Universiteit Amsterdam. [https://research.vu.nl/ws/portalfiles/portal/77022925/7\\_Compentence\\_based\\_curriculum\\_development\\_in\\_higher\\_education\\_some\\_African\\_experiences.\\_Kouwenhoven.pdf](https://research.vu.nl/ws/portalfiles/portal/77022925/7_Compentence_based_curriculum_development_in_higher_education_some_African_experiences._Kouwenhoven.pdf)
- Makinde, T. (2005). Problems of policy implementation in developing nations: The Nigerian experience. *Journal of Social Sciences*, 11(1), 63-69.
- Makunja, G. (2015). Adopting competence-based curriculum to improve quality of secondary education in Tanzania: Is it a dream or reality?

- International Journal of Education and Research*, 3(11), 175-188.
- Mathias, L., Mwamakula, F., & Mhagama, M. (2023). Challenges facing public secondary school teachers on implementing competence-based curriculum in Magu District, Mwanza-Tanzania. *International Journal of Social and Development Concerns*, 18(13), 160-172. <https://doi.org/10.5281/zenodo.10317583>
- Mbarushimana, N., & Kuboja, J. M. (2016). A paradigm shifts towards competence-based curriculum: The experience of Rwanda. *Saudi Journal of Business and Management Studies*, 1(1), 6-17.
- Mentz, E., & Mentz, K. (2003). Managing technology integration into schools: A South African perspective. *Journal of Educational Administration*, 41(2), 186-200. <https://doi.org/10.1108/09578230310464684>
- Min, M. (2019). School culture, self-efficacy, outcome expectation, and teacher agency toward reform with curricular autonomy in South Korea: A social cognitive approach. *Asia Pacific Journal of Education*, 43(4), 951-967. <https://doi.org/10.1080/02188791.2019.1626218>
- Ministry of Education. (2015). *Competence-based curriculum: Summary of curriculum framework pre-primary to upper secondary*. Republic of Rwanda. [https://www.mineduc.gov.rw/fileadmin/user\\_upload/Mineduc/Publications/ESSP/1\\_Education\\_Sector\\_Strategic\\_Plan\\_2018\\_2024.pdf](https://www.mineduc.gov.rw/fileadmin/user_upload/Mineduc/Publications/ESSP/1_Education_Sector_Strategic_Plan_2018_2024.pdf)
- Mogere, V. B., & Mbataru, P. (2023). Determinants of competence-based curriculum implementation in selected public primary schools in Nairobi County, Kenya. *Journal of Public Policy and Governance*, 3(1), 39-50. <https://doi.org/10.70619/vol3iss1pp39-50>
- Momanyi, J. M., & Rop, P. K. (2020). Teacher preparedness for the implementation of competency based curriculum in Kenya: A survey of early grade primary school teachers in Bomet East Sub-County. *The Cradle of Knowledge: African Journal of Educational and Social Science Research*, 7(1), 10-15.
- Muckenthaler, M., Tillmann, T., Weiß, S., & Kiel, E. (2020). Teacher collaboration as a core objective of school development. *School Effectiveness and School Improvement*, 31(3), 486-504. <https://doi.org/10.1080/09243453.2020.1747501>
- Muraraneza, C., & Mtshali, G. N. (2018). Implementation of competency-based curriculum in pre-service nursing education: Middle range theory. *International Journal of Africa Nursing Sciences*, 8, 53-58. <https://doi.org/10.1016/j.ijans.2018.02.006>
- Muraraneza, C., Mtshali, N. G., & Mukamana, D. (2017). Issues and challenges of curriculum reform to competency-based curricula in Africa: A meta-synthesis. *Nursing & Health Sciences*, 19(1), 5-12. <https://doi.org/10.1111/nhs.12316>
- Murithi, J., & Yoo, J. E. (2021). Teachers' use of ICT in implementing the competency-based curriculum in Kenyan public primary schools. *Innovation and Education*, 3, Article 5. <https://doi.org/10.1186/s42862-021-00012-0>
- Murphy-Pope, A. (2013). *Teacher reported preparedness: A study of one Midwest Metropolitan School District* (Publication No. 3610204) [Doctoral dissertation, University of Missouri]. ProQuest Dissertation and Thesis Database.
- Muse, B., Ndirangu, C., & Imonje, R. (2019). Determinants of implementing chemistry curriculum in arid and semi-arid lands: A case of secondary schools in Garissa, Kenya. *International Journal of Learning, Teaching and Educational Research*, 17(12), 99-115. <https://doi.org/10.26803/ijlter.17.12.6>
- Namamba, A., & Rao, C. (2017). Preparation and professional development of teacher educators in Tanzania: Current practices and prospects.



- Journal of Education and Practice*, 8(8), 136-145.
- Ngendahayo, E., & Askill-Williams, H. (2016). Rwanda's new competence-based school curriculum: New approaches to assessing student learning needed. In J. Orrell & D. D. Curtis (Eds.), *Publishing Higher Degree Research* (pp. 155-165). Brill.
- Niyukuri, F., Nzotungicimpaye, J., & Ntahomvukiye, C. (2020). Pre-service teachers' secondary school experiences in learning geometry and their confidence to teach it. *EURASIA Journal of Mathematics, Science and Technology Education*, 16(8), Article em1871. <https://doi.org/10.29333/ejmste/8334>
- Nsengimana, T., Habimana, S., & Mutarutinya, V. (2017). Mathematics and science teachers' understanding and practices of learner-centred education in nine secondary schools from three districts in Rwanda. *Rwandan Journal of Education*, 4(1), 55-68.
- Nsengimana, V. (2020). Implementation of competence-based curriculum in Rwanda: Opportunities and challenges. *Rwandan Journal of Education*, 5(1), 129-138.
- Otara, A., Uworwabayeho, A., Nzabwirwa, W., & Kayisenga, B. (2019). From ambition to practice: An analysis of teachers' attitude toward learner-centered pedagogy in public primary schools in Rwanda. *Sage Open*, 9(1). <https://doi.org/10.1177/2158244018823467>
- Pale, J. W., & Amukowa, D. (2020). Competency based curriculum in primary schools in Kenya: Opportunities and challenges of implementation. *Journal of Education and Practice*, 11(32), 50-56. <https://doi.org/10.7176/JEP/11-32-06>
- Papay, J. P., & Kraft, M. A. (2015). Productivity returns to experience in the teacher labor market: Methodological challenges and new evidence on long-term career improvement. *Journal of Public Economics*, 130, 105-119. <https://doi.org/10.1016/j.jpubeco.2015.02.008>
- Paulo, A., & Tilya, F. (2014). The 2005 secondary school curriculum reforms in Tanzania: Disjunction between policy and practice in its implementation. *Journal of Education and Practice*, 5(35), 114-122.
- Pintó, R. (2005). Introducing curriculum innovations in science: Identifying teachers' transformations and the design of related teacher education. *Science education*, 89(1), 1-12. <https://doi.org/10.1002/sce.20039>
- Rogan, J., & Aldous, C. (2005). Relationships between the constructs of a theory of curriculum implementation. *Journal of Research in Science Teaching: The Official Journal of the National Association for Research in Science Teaching*, 42(3), 313-336. <https://doi.org/10.1002/tea.20054>
- Rogan, J. M., & Grayson, D. J. (2003). Towards a theory of curriculum implementation with particular reference to science education in developing countries. *International Journal of Science Education*, 25(10), 1171-1204. <https://doi.org/10.1080/09500690210145819>
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78. <https://doi.org/10.1037/0003-066X.55.1.68>
- Sephania, N., Too, J. K., & Kipng'etich, K. J. (2017). Perception of teachers on availability of instructional materials and physical facilities in secondary schools of Arusha District. *Tanzania Journal of Teachers*, 4(28), 68-102. <https://doi.org/10.15739/IJEPRR.17.012>
- Sibomana, A. B., Ukobizaba, F., & Nizeyimana, G. (2021). Teachers' perceptions of their teaching strategies and their influences on students' academic achievement in national examinations in Burundi: Case of schools in Rumonge

- province. *Rwandan Journal of Education*, 5(2), 153-166.
- Simiyu, C. N. (2019). Teachers' preparedness towards the implementation of free primary education in Bungoma County, Kenya. *International Journal for Innovation Education and Research*, 7(2), 210-220. <https://doi.org/10.31686/ijer.vol7.iss2.1341>
- Steinhaeuser, J., Chenot, J. F., Roos, M., Ledig, T., & Joos, S. (2013). Competence-based curriculum development for general practice in Germany: A stepwise peer-based approach instead of reinventing the wheel. *BMC Research Notes*, 6, Article 314. <https://doi.org/10.1186/1756-0500-6-314>
- Suyanto, S. (2017). *A reflection on the implementation of a new curriculum in Indonesia: A crucial problem on school readiness*. AIP Publishing.
- Tabaro, C. (2018). The Rwandan secondary school competence-based curriculum: Knowledge, skills and attitudes to Incorporate in the University of Rwanda-College of Education Programs to align them with the current curriculum. *International Journal of Education and Practice*, 6(2), 64-75. <https://doi.org/10.18488/journal.61.2018.62.64.75>
- Tilya, F., & Mafumiko, F. (2010). The compatibility between teaching methods and competence-based curriculum in Tanzania. *Papers in Education and Development*, 29, 37-56.
- Uakarn, C., Chaokromthong, K., & Sintao, N. (2021). Sample size estimation using Yamane and Cochran and Krejcie and Morgan and Green formulas and Cohen statistical power analysis by G\* power and comparisons. *Apheit International Journal*, 10(2), 76-88.
- Uwizeyimana, D. E. (2022). Analysing the importance of e-government in times of disruption: The case of public education in Rwanda during Covid-19 lockdown. *Evaluation and Program Planning*, 91, Article 102064. <https://doi.org/10.1016/j.evalprogplan.2022.102064>
- Victorini, S., & Wambiya, P. (2016). Assessment of the adequacy of resources and facilities to enhance learner-centered pedagogy in secondary schools in the Kilimanjaro region, Tanzania. *European Journal of Education Studies*, 2(2), 142-161.
- Yilmaz, A. (2021). The effect of technology integration in education on prospective teachers' critical and creative thinking, multidimensional 21st century skills and academic achievements. *Participatory Educational Research*, 8(2), 163-199. <https://doi.org/10.17275/per.21.35.8.2>

## **Analisis Kualitatif Komparatif Varian Dialek Melayu Jugra**

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### **ABSTRAK**

Kajian dialektal Melayu yang tergolong dalam bangsa Austronesia terus mendapat sambutan untuk dibincangkan oleh para ilmuwan bahasa. Hal ini turut diteruskan dalam kajian dialektal dengan meneliti keakraban atau kekerabatan atau genealogi dialek yang berasal daripada sesuatu bahasa. Oleh itu, kajian varian dialek Melayu Jugra (DMJ) Selangor yang menggunakan analisis kualitatif komparatif ini diketengahkan untuk meneruskan kesinambungan kajian dialektal ini. Oleh itu, makalah ini tuntasnya ingin melihat sebahagian aspek fonologi dan rekonstruksi dalaman dengan melihat kekerabatan varian semasa dengan bahasa induknya iaitu Bahasa Melayik Purba (BMP). Justeru, objektif kajian ini ialah membandingkan konsonan dan separuh vokal antara BMP dengan DMJ dan membincang inovasi ataupun retensi yang berlaku dalam DMJ. Pendekatan yang diguna pakai bagi menjawab objektif kajian ini ialah pendekatan perbandingan tradisional dan reka bentuk kajian perbandingan kualitatif. Hasil perbandingan memperlihatkan 13 ciri inovasi fonologi ataupun perselisihan fonetik (teratur dan sporadik) dan retensi yang diturunkan dalam DMJ dalam varian semasa iaitu varian Bandar (VBNDR), Kelanang (VKLNG) dan Permatang Pasir (VPP). Hasil persamaan dan perbezaan yang wujud antara kawasan terutamanya ini dapat mengukuhkan lagi hujah yang menyokong bahawa DMJ adalah daripada kelompok BMP. Justeru, penyelidikan ini secara tidak langsung membantu menambah dan memperlihatkan keterikatan

jalinan kesinambungan kajian linguistik bandingan terhadap dialek Melayu yang berada di bawah rumpun Austronesia melalui maklumat retensi yang diperoleh dalam DMJ daripada BMP. Sehubungan itu, DMJ perlu dipelihara dan dibukukan agar warisan negeri Selangor tidak hilang ditelan arus zaman.

*Kata kunci:* Fonologi, inovasi, konsonan, pendekatan perbandingan, tradisional

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## ***Comparative Qualitative Analysis of Jugra Malay Dialect Variants***

### **ABSTRACT**

*The study of Malay dialects belonging to the Austronesian race continues to be welcomed and discussed by linguists. This is also continued in dialectal studies by examining the closeness or kinship or genealogy of dialects originating from a language. Therefore, the study of Jugra Malay dialect variants (DMJ) of Selangor using this comparative qualitative analysis is highlighted to continue this dialectal study. Therefore, this paper ultimately wants to look at some aspects of phonology and internal reconstruction by looking at the kinship of the current variant with its parent language, which is Bahasa Melayik Purba (BMP). Therefore, the objective of this study is to compare consonants and semi-vowels between BMP and DMJ and discuss innovation or retention that occurs in DMJ. The approach used to answer the objectives of this study is the traditional comparative approach and qualitative comparative study design. The results of the comparison show 13 features of phonological innovation or phonetic disagreement (regular and sporadic) and retention revealed in the DMJ in the current variant, namely the Bandar (VBNDR), Kelanang (VKLNG) and Permatang Pasir (VPP) variants. The results of the similarities and differences that exist between these areas can further strengthen the argument that DMJ is from the BMP group. Thus, this research indirectly helps to add and show the interweaving of the continuity of comparative linguistic studies on the Malay dialects under the Austronesian cluster through the retention of information obtained in the DMJ from the BMP. Accordingly, DMJ needs to be preserved and recorded so that the heritage of the state of Selangor is not lost to the tide of time.*

Keywords: *Comparative approach, consonant, innovation, phonology, traditional*

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### **PENGENALAN**

Kajian dialektal ialah penyelidikan tentang hubungan, kekerabatan ataupun sejarah dialek yang berbeza yang berasal daripada bahasa yang sama. Dialek Melayu Semenanjung Malaysia telah dibahagikan kepada tujuh kumpulan dialek oleh Omar (1993). Pembahagian dialek yang dibuat oleh Omar (1993) ini sudah tentulah berdasarkan perbandingan aspek-aspek fonologi. Dialek-dialek tersebut merangkumi dialek yang letaknya di barat laut yang meliputi kawasan Perlis, Kedah (termasuk Langkawi), Pulau Pinang dan Perak Utara sehingga Taiping dan dikenali umum sebagai dialek utara atau

dialek Kedah. Kedua, dialek Perak yang meliputi kawasan Perak Tengah. Ketiga, dialek selatan yang meliputi Perak Selatan, Selangor, Melaka dan Johor. Keempat, dialek Kelantan yang kawasannya ialah keseluruhan negeri Kelantan dan juga termasuk kawasan-kawasan sempadan Pahang dan Terengganu. Kelima, dialek Terengganu yang terletak di bahagian timur Semenanjung. Keenam, dialek Pahang yang terdapat di negeri Pahang dan yang terakhir ialah dialek Negeri Sembilan yang dituturkan secara meluas di negeri Sembilan. Secara amnya, sesetengah pendapat (Bellwood, 1985; Dyen, 1965;

Kern, 1889), mendakwa orang Melayik (istilah Melayik diperkenalkan oleh Hudson [1970] bermaksud bahasa yang memiliki kesamaan ciri dengan bahasa Melayu—fonologi dan nahu. Justeru, semua bahasa di Borneo adalah dalam kelompok Melayik), asalnya dari Taiwan, China ataupun wilayah Nusantara. Tatacara kualitatif, yang biasanya disebut sebagai kaedah perbandingan tradisional (Collins, 1997), sebenarnya telah berakar sejak ilmu ini mula bangkit ke permukaan mandala akademik dunia pada pertengahan abad ke-19 lagi. Pengoperasian tatacara ini adalah dengan membandingkan ciri linguistik, misalnya fonologi ataupun morfologi bahasa serumpun. Serentak dengan itu, dibina pula perangkat kesepadanan (korespondensi) bunyi bagi membolehkan penentuan bentuk-bentuk bahasa purba dilakukan. Lalu daripada perbandingan ciri linguistik tersebut dicarikan ciri pengekal (retensi) dan perubahan (inovasi) yang terjadi. Ciri ini dapat mengukur hubungan dekat-jauh ataupun pengelasan antara bahasa yang dibandingkan (dapat dilihat dalam kajian yang telah dilaksanakan oleh Hamid et al. (2012), Aman et al. (2015), dan Ab Hamid et al. (2017, 2022). Disebabkan perbandingan ciri linguistik ini, ciri retensi (pengekal) dan inovasi (perubahan) dikenal pasti (Ringe & Eska, 2013). Ciri-ciri ini dapat digunakan untuk menggambarkan hubungan jauh dekat ataupun pengelasan antara bahasa yang dibandingkan. Oleh itu, dalam makalah ini dengan adanya varian semasa dialek Melayu Jugra (DMJ) dalam Bahasa Melayik Purba (BMP) telah mendorong

pengkaji untuk melakukan perbandingan tahap rendah (*lower level reconstruction*), iaitu perbandingan yang tidak melibatkan rumpun bahasa Melayu dengan rumpun bahasa lain di dunia. Perbandingan ini hanya melibatkan dialek yang serumpun dengan bahasa Melayu. Berdasarkan pernyataan tersebut, pengkaji membuat kesimpulan bahawa terdapat banyak dialek Melayu yang belum dikaji sepenuhnya. Oleh itu, dialek Melayu Jugra yang berada di bawah pentadbiran negeri Selangor menjadi tumpuan kajian ini kerana Jugra merupakan tamadun awal perkembangan Melayu negeri Selangor.

### Permasalahan Kajian

Mengumpul bahan terhadap kajian lepas merupakan salah satu cara memulakan sesebuah kajian. Justeru, dalam makalah ini, hanya tujuh buah penulisan bidang linguistik yang melibatkan pengkajian tentang dialek Jugra telah dilakukan oleh pengkaji terhadap kajian perpustakaan. Antara penulisan lepas yang telah dirujuk ialah Omar (1991), Collins (1996) dan Chelaeh et al. (2017) dan Ab Hamid (2018, 2019a, 2019b, 2020). Kajian yang ingin diketengahkan dalam dialek Selangor oleh Omar (1993) adalah untuk melihat secara langsung ciri leksikal sepunya dan ciri tersendiri leksikal yang diwakili dalam kawasan kajian tersebut. Perkara yang ingin diketengahkan di sini ialah usaha pengelompokan yang dibuat oleh Omar dibuat melalui kaedah kualitatif. Kaedah ini dilakukan berdasarkan perbandingan antardialek untuk mengesan dan perbezaan

dialektal. Mana-mana dialek yang memperlihatkan persamaan ciri linguistik akan dikelompokkan dalam kumpulan yang sama. Sebaliknya, jikalau ada perbezaan, maka dialek itu berada dalam kelompok yang berbeza. Hal ini bermakna, darjah perbezaan ataupun persamaan itu lazimnya bergantung kepada lokasi keberadaan dialek-dialek berkenaan.

Seterusnya, dalam kajian beliau itu juga memuatkan perbandingan antara subdialek Selangor Barat, subdialek Kuala Lumpur dengan dialek Minang (Min) yang melibatkan sistem vokal dan sistem konsonan. Masalahnya di sini, Omar tidak menyebut lokasi khusus yang menjadi tempat kajiannya. Bukan itu sahaja, malah Omar hanya melakukan pengelompokan secara umum sahaja sedangkan Omar sendiri menyebut dalam buku tersebut bahawa kajian dialek bagi negeri Selangor adalah rumit berbanding dengan kajian dialek di negeri-negeri lain. Hal ini disebabkan negeri Selangor merupakan tempat pertembungan penutur daripada pelbagai lapisan masyarakat dan mewakili pelbagai kawasan dialek lain (Omar, 1991). Jadi, pemerian Omar mestilah dalam skala yang lebih jitu. Tidak dinafikan Omar ada memerikan aspek fonologi dalam dialek Selangor, namun beliau tidak mengupas dengan lebih terperinci tentang sistem fonologi seperti pendeskripsian fonem inventori yang terdapat dalam dialek Selangor serta proses fonologinya. Yang beliau hanya lakukan ialah melakukan perbandingan dengan subdialek lain untuk membuktikan sama ada dialek Selangor mempunyai ciri khusus ataupun tidak.

Didapati juga Omar (1991) tidak menyatakan metodologi dan kaedah pengumpulan data kajiannya. Beliau tidak memberi penjelasan kawasan mana yang diambil sebagai lokasi kajian dan tidak membahagiakan dialek Selangor kepada variannya.

Sementara itu, Collins (1996) turut membuat penelitian dialek di Selangor, iaitu tinjauan di Jugra dengan mengenal pasti ciri-ciri tatabunyi di kawasan itu. Kajian Collins ini berbeza dengan kajian Omar kerana Collins menyatakan lokasi yang ingin dikaji berbanding dengan kajian Omar (1991). Lokasi kajian yang disebutkan oleh Collins dalam kajian beliau itu ialah Kelanang, Permatang Buah, Pulau Nyatuh di Mukim Kelanang serta Kampung Air Tawar, Katung, Gelanggang Buaya, Sungai Buaya Ujung, Sungai Arak, Bandar dan Sungai Ingat di Mukim Bandar. Bagaimanapun, kajian ini hanya memberi penekanan pada bunyi vokal dan konsonan akhir kata sahaja. Hasilnya, kajian Collins menemukan bahawa terdapat tujuh fonem vokal dalam dialek Jugra, iaitu /i/, /e/, /ɛ/, /ə/, /a/, /o/, dan /u/. Manakala, dapatan kajian tentang aspek bunyi konsonan, hanya terdapat tiga perkara sahaja yang ditekankan, iaitu /a/ dan alofonnya, perselisihan bentuk hentian akhir kata dan /s/ di akhir kata.

Collins (1996) turut membincangkan kaitan bentuk fonetik ini dengan sejarah penyebaran bahasa Melayu. Beliau juga mengakui bahawa informan yang dipilih hanyalah informan berketurunan Melayu sahaja, biarpun di Jugra ramai yang berketurunan Jawa. Selain itu, seperti juga kajian Omar, Collins juga tidak

memperincikan secara menyeluruh tentang dialek Melayu Jugra, misalnya pemerian aspek fonologi seperti inventori vokal, diftong, konsonan serta proses fonologinya. Collins juga tidak menyatakan varian-varian yang terdapat di Jugra secara terperinci. Jika diteliti penulisan-penulisan Collins sebelum-sebelum ini tentang dialek-dialek Melayu yang ada di Semenanjung Malaysia memang pemerianya secara umum sahaja.

Dapatlah disimpulkan bahawa kajian yang dikemukakan oleh Omar (1991) dan Collins (1996) tentang dialek Selangor begitu terhad. Aspek fonologi yang dikaji dalam dialek Melayu Selangor tidak diteroka secara menyeluruh. Kedua-duanya hanya menyenaraikan leksikal yang mengalami perubahan dalam fonologi. Penekanan Omar (1991) berkenaan pembahagian kelompok antara subdialek Selangor dengan subdialek Kuala Lumpur dan dialek Minang. Sementara Collins (1996) pula hanya menyatakan fonem apa yang berubah dan muncul dalam ragam Jugra. Kedua-dua kajian tidak membincangkan tentang ciri-ciri fonetik, proses-proses fonologi seperti pengguguran, peleburan, perubahan bunyi pada konsonan dan vokal dan rumus yang berlaku dalam dialek tersebut dengan jelas.

Sementara itu, kajian yang dilakukan oleh sekumpulan ahli penyelidik dari Universiti Kebangsaan Malaysia yang diketuai oleh Chelaeh et al. (2017) membawa sinar baharu daripada dua kajian sebelum ini. Kajian mereka dilihat lebih berpada kerana mereka membuat pendeskripsian fonologi atau variasi-variasi Jugra, mendeskripsikan inventori yang terdapat dalam dialek Jugra,

dan membincangkan proses fonologi yang wujud dalam variasi-variasi Jugra dengan terperinci. Yang menarik perhatian pengkaji juga dalam kajian mereka ini, ialah mereka ingin membuktikan sama ada kajian Omar ataupun Collins yang benar kerana Collins menemukan frikatif velar /ɣ/ dalam dialek Selangor yang menggantikan getaran getaran alveolar /r/ pada posisi awal kata dan tengah kata. Sebaliknya, dalam kajian Omar, beliau tidak membincangkan langsung mengenai fonem ini dan dalam data beliau, fonem /r/ ini dikekalkan. Oleh itu, dapatan kajian yang ingin dibuktikan oleh pasukan penyelidik yang diketuai oleh Chelaeh ini mendapati bahawa sememangnya kajian oleh Collins (1996) itu benar dan mereka membuat kesimpulan bahawa dialek Jugra tidak mempunyai fonem /r/ dan inilah yang dikatakan ciri unik bagi ragam kawasan ini. Sementara itu, fonem /a/ digunakan secara meluas dalam dialek dialek Melayu Jugra ini.

Bagaimanapun, pada hemat pengkaji, ada kelompangan yang wujud daripada kajian Omar (1991), Collins (1996) dan Chelaeh et al. (2017), iaitu pengelompokan varian perlu dilandaskan kepada sebuah metodologi yang kukuh dan menyakinkan. Sehubungan dengan itulah diperlukan disiplin linguistik perbandingan sejarawi yang bermatlamat untuk merekonstruksi induk varian-varian tersebut. Hasil rekonstruksi itu akan menyingkapi tabir ciri inovasi dan retensi (Campbell, 2004; Collins, 1989; Fox, 1995; Mahsun, 1995). Dengannya pasti akan memungkinkan sebuah pengelompokan varian yang benar-benar kukuh.

Manakala, kajian Ab Hamid (2018, 2019a, 2019b, 2020) pula hanya melihat analisis fonologi yang melibatkan aspek inventori fonem dalam dialek Melayu Jugra di varian Bandar Permatang Pasir, Kelanang, dan Jugra tanpa melibatkan ilmu perbandingan. Melihat kepada kajian lepas, sangat jelas kekurangannya jika timbang taranya adalah daripada aspek ilmu bandingan tersebut. Pengelompokan yang dilakukan tidak didasarkan kepada ciri inovasi ataupun ciri retensi. Sebaliknya, perkara itu hanya disandarkan melalui kaedah perbandingan antardialek, yakni dengan hanya membandingkan fonem sesebuah varian dengan varian yang lain untuk mengesan ciri persamaan dan perbezaan (Ab Hamid et al., 2017). Jika wujud persamaan, maka varian tersebut akan digolongkan dalam satu kelompok yang sama. Sebaliknya, jika terdapat perbezaan, maka varian yang memperlihatkan ciri itu tidak termasuk dalam kelompok yang memiliki persamaan itu tadi.

Kenyataan ini bukan bermakna pengkaji ingin meminggirkan kaedah perbandingan antardialek di suatu sudut yang terpendil. Kaedah ini juga penting untuk menguji teori persebaran dialek Melayu. Harus jelas bahawa salah satu matlamat disiplin linguistik perbandingan sejarawi adalah untuk mengelompokan atau mengklasifikasikan bahasa ataupun dialek. Ini juga bererti untuk melihat kekerabatan antara bahasa dengan dialek. Melalui kaedah rekonstruksi dan klasifikasi akan dikesani evolusi kesejarahan sesuatu bahasa ataupun dialek tersebut. Justeru, menerapkan disiplin

linguistik perbandingan sejarawi berupaya mengatasi kekangan kajian lepas (Ab Hamid et al., 2017).

Tujuh kajian terdahulu mengenai dialek Jugra telah dirujuk dalam kajian ini untuk mencari dan mengkaji kelemahan yang harus ditambah baik bagi menghasilkan kajian baharu yang lebih saintifik. Penemuan kajian terdahulu terhadap bahasa yang dikaji juga memberikan gambaran awal kepada pengkaji untuk menjalankan kajian yang baharu. Tidak keterlaluan untuk dikatakan di sini yang hasil penulisan ini adalah sebagai kajian perintis dalam bidang fonologi dan ilmu perbandingan DMJ.

Justeru, berdasarkan cerakinan kajian lampau tersebut membolehkan pengkaji membuat satu rumusan untuk dijadikan panduan bagi kajian yang dijalankan ini. Terdapat banyak isu yang muncul hasil daripada perbincangan ringkas mengenai kajian terdahulu. Antaranya ialah berkaitan jumlah inventori fonem yang telah dibahaskan dalam ketujuh-tujuh kajian yang dirujuk. Sehubungan itu, kajian lepas juga tidak pernah menyentuh soal perbandingan varian semasa dengan bentuk purbanya. Walau bagaimanapun, isu ini tidak menunjukkan bahawa kajian sebelumnya tidak tepat ataupun berkualiti; sebaliknya, ia menunjukkan bahawa kajian terhadap DMJ memerlukan kajian yang lebih teliti lagi. Namun begitu, dalam makalah ini, disimpulkan bahawa tujuan utama kajian ini ialah (data dan kajian yang telah diperoleh oleh dalam kajian pengkaji terhadap inventori semasa (Ab Hamid, 2018, 2019a, 2019b, 2020), memastikan inventori



yang sebenarnya bernuansa dalam varian semasa DMJ dibandingkan dengan bahasa Melayu Purba (BMP) bagi mengetahui ciri retensi dan inovasi yang wujud dalam DMJ. Hal ini bersesuaian dengan objektif yang diketengahkan dalam kajian. Susunan bahasa Melayik Purba (Adelaar, 1985) ialah asas dalam perbincangan ini. Aspek yang diteliti berhubung Melayik Purba ialah fonologi, khususnya konsonan yang terdapat dalam varian semasa DMJ. DMJ yang dimaksudkan ini tersebar luas di pelbagai kawasan, dan ia pastinya melampaui batas geografi setempat Selangor. Kajian ini hanya memfokuskan kepada enam varian berdasarkan mukim dan tiga mukim memperlihatkan kelainan yang dianggap dapat mewakili keseluruhan varian DMJ.

Kajian ini menggunakan pendekatan linguistik perbandingan kualitatif, iaitu dengan peristilahan yang diberikan oleh Collins (1997) ialah linguistik perbandingan tradisional. Justifikasi penggunaan pendekatan perbandingan linguistik kualitatif adalah untuk mengekalkan matlamat pengkaji pada permulaan bahagian ini bagi membandingkan dengan lebih baik varian DMJ semasa dengan BMP. Wajaran ini dilakukan kerana tiada pengkaji terdahulu yang menggunakan pendekatan ini dalam mengkaji DMJ dan secara tidak langsung akan membantu menghasilkan sumbangan dapatan yang baharu.

### **Objektif Kajian**

Kajian perbandingan DMJ dengan BMP dilaksanakan oleh pengkaji kerana belum ada kajian terdahulu yang menggunakan

perbandingan kualitatif dalam setiap penelitian kajian DMJ yang dilakukan. Sekiranya ada pendekatan yang telah dijalankan, kajian tersebut menyentuh aspek lain dan hasilnya masih dilihat lompong. Ekoran daripada beberapa permasalahan dan persoalan dalam kajian lepas, pada asasnya objektif kajian ialah (1) membandingkan penyebaran konsonan dan separuh vokal BMP dengan varian DMJ dan (2) membincangkan inovasi dan retensi bersama dalam ragam DMJ.

### **METODOLOGI**

Kajian tentang perbandingan DMJ dengan BMP menggunakan reka bentuk kualitatif dan berdasarkan kepada dua kaedah iaitu kepustakaan dan lapangan. Kaedah kepustakaan merupakan kaedah yang digunakan oleh seseorang pengkaji untuk mendapatkan data dan bukti melalui kajian ke atas dokumen dan rekod (Bakar, 1991). Kajian kepustakaan dilakukan untuk mendapatkan maklumat penting tentang masyarakat Jugra dan Selangor. Sebelum pengkaji pergi ke lapangan, maklumat tentang latar belakang masyarakat (lokasi, jumlah penduduk, penutur natif, kegiatan ekonomi dan lain-lain) ini adalah penting kerana ia boleh memberikan maklumat awal berkaitan kehidupan masyarakat tersebut. Selain itu, kaedah kepustakaan membolehkan pengkaji mendapatkan maklumat penting mengenai kajian terdahulu tentang subjek yang sedang dikaji. Maklumat tentang penyelidikan terdahulu dapat membantu pengkaji daripada menjalankan penyelidikan yang sama. Sebanyak tujuh

kajian (Ab Hamid, 2018, 2019a, 2019b, 2020; Chelaeh et al., 2017; Collins, 1996; Omar, 1991) sebelumnya telah dirujuk untuk mendapatkan pemahaman awal tentang kajian penyelidikan terhadap DMJ sebelumnya. Oleh itu, kajian perpustakaan juga dijalankan untuk menghasilkan garis panduan untuk pendekatan perbandingan bahasa. Selain perpustakaan, sumber awal turut diperoleh di Pejabat Daerah Jugra.

Berikutnya ialah kaedah kelapangan. Kerja lapangan ini adalah penting untuk pengkaji mendapatkan data dan maklumat yang boleh dipercayai bagi mencapai objektif kajian. Kajian ini dijalankan pada 17 hingga 24 Mac 2018. Kaedah lapangan ini melibatkan teknik pemilihan senarai kata/soal selidik, pemilihan kawasan dan batasan kajian, pemilihan informan, pengumpulan dan penyebaran data.

Senarai kata swadesh yang telah disesuaikan dengan masyarakat yang dikaji digunakan sebagai soal selidik dalam kajian ini dan turut digunakan dalam kajian Hasrah et al. (2010), Kaharuddin dan Aman (2011), Ab Hamid (2014, 2019a, 2019b, 2020), Ab Hamid dan Aman (2016), dan Ab Hamid et al. (2017, 2018, 2022).

Senarai kata ini terdiri daripada 400 perkataan asas yang digunakan dalam DMJ yang terdiri daripada dua belas domain makna (1) tubuh badan, (2) alat pertanian, (3) kata kerja, (4) makanan, (5) alat rumah, (6) waktu dan cuaca, (7) nama dan ganti nama, (8) kata ukuran, (9) binatang, (10) pakaian, (11) persaudaraan dan (12) kata bilangan. Pengkaji mengumpul dan menguji sendiri senarai kata ini di enam buah kampung: Kampung Kelanang

(VKLNG), Bandar (VBNDR), Permatang Pasir (VPP), Ayer Tawa, Sungai Buaya, dan Sungai Ingat. Walau bagaimanapun, selepas data dibersihkan, pengkaji menemui hanya tiga varian yang berbeza yang menunjukkan perbezaan antara satu sama lain, iaitu varian Kelanang (VKLNG), varian Bandar (VBNDR), dan varian Permatang Pasir (VPP). Bagi melaksanakan kerja perbandingan memadai 100 hingga 200 (Adelaar, 1985) dijadikan maklumat data untuk dianalisis. Oleh itu, untuk melaksanakan kerja perbandingan DMJ dengan BMP, sebanyak 186 kosa kata telah diambil dan dijadikan sebagai contoh data yang dianalisis. Data yang digunakan dalam kajian ini dapat dianggap sebagai data primer.

Bertepatan dengan tajuk penyelidikan, kawasan kajian meliputi batasan geografi setempat. Oleh itu, kawasan kajian yang dipilih adalah di mana dialek Melayu digunakan di Jugra. Pengkaji memilih kawasan kajian ini kerana percaya bahawa terdapat puluhan varian DMJ (andaian awal pengkaji sebelum bertemu informan). Walau bagaimanapun, selepas seminggu berada di kawasan lapangan, didapati bahawa terdapat beberapa puluhan kampung yang mencakupi DMJ ini, tetapi pengkaji hanya melihat tiga mukim yang mewakili sebahagian besar DMJ yang terdapat di kawasan tersebut. Pemilihan kawasan kajian turut dibantu oleh informan dan ketua kampung di sini. Data yang diambil dan dijadikan asas kajian ini ialah Varian Kelanang (VKLNG), varian Bandar (VBNDR), dan varian Permatang Pasir (VPP). Hasil temu bual selama seminggu menunjukkan bahawa bahasa informan agak

berbeza antara satu sama lain dalam tiga varian ini. Selain itu, faktor geografi yang memisahkan kawasan ini turut memainkan peranan dalam penentuan kawasan kajian (Ab Hamid, 2018, 2019a, 2019b, 2020).

Dalam kajian dialek dan linguistik bandingan, pemilihan informan merupakan kriteria yang penting untuk menunjukkan kejituan data yang dipungut. Informan berdasarkan jantina, umur, dan pendidikan telah dijadikan kayu ukur dalam pemilihan informan. Oleh itu, pengkaji telah memilih informan lelaki dan perempuan. Pewajaran memilih kedua-dua informan ini dibuat berdasarkan pemerhatian yang dilakukan oleh pengkaji yang mendapati percakapan informan lelaki dan perempuan dapat mewakili percakapan kawasan kajian. Daripada tiga kawasan kajian yang pengkaji kumpulkan data ini, pengkaji telah memilih informan lelaki dan wanita di varian Kelanang (VKLNG), varian Bandar (VBNDR), dan varian Permatang Pasir (VPP). Dari segi umur pula, informan pengkaji terdiri daripada golongan tua yang baik dan sempurna alat artikulasinya. Pengkaji mengambil informan yang berumur 50 tahun hingga 77 tahun. Seterusnya, dalam kajian ini pengkaji memilih informan yang tidak mempunyai pendidikan formal. Enam orang informan sebenarnya tidak mempunyai pendidikan formal. Mereka bekerja sebagai nelayan, ketua kampung dan suri rumah tangga.

Dalam kajian ini, senarai 400 perkataan telah diambil daripada senarai Aman (1997), dalam kajiannya yang bertajuk *Perbandingan fonologi dan morfologi bahasa Iban, Kantuk, dan Mualang*. Walaupun senarai

kata ini pada asasnya diambil daripada senarai kata tersebut, namun dalam kajian ini, senarai kata tersebut telah diubah suai supaya bersesuaian dengan masyarakat yang dikaji. Bagi tujuan perbandingan, 200 daftar kata BMP daripada Adelaar (1985) digunakan. Teknik temu bual, penceritaan, rakaman dan pemerhatian juga digunakan untuk mengumpul data. Data diperoleh melalui penggunaan bahasa secara lisan.

Pengkaji menggunakan teknik temu bual untuk menjalankan kajian ini. Senarai kata yang disediakan oleh pengkaji dikaitkan dengan soalan yang ditanya kepada informan. Sepanjang temu bual, pengkaji telah menggunakan pelbagai teknik dan gaya untuk memulakan temu bual. Pengkaji bertanya, “Mak cik, ini panggil apa?” sebagai salah satu cara untuk mengajukan soalan yang berkaitan dengan anggota badan, seperti perkataan “hidung” sambil menunjukkan hidung.

Selain itu, pengkaji meminta informan menceritakan asal-usul kawasan yang didiami. Sebagai contoh, informan di ketiga-tiga kawasan kajian menceritakan bahawa penduduk awal kawasan kajian dan sejarahnya. Teknik ini diguna pakai bagi mendapat maklumat tambahan selain data linguistik dan salah satu cara untuk mengelak informan merasa bosan. Jika informan kelihatan letih, pengkaji memberi mereka minuman untuk berehat. Selepas masa berehat selama lapan hingga dua belas minit, pengkaji mengembalikan informan ke topik asalnya dengan menanyakan soalan yang berkaitan dengan senarai kata. Sesi soal jawab ini berlangsung selama dua hingga tiga jam.

Pengkaji juga menggunakan teknik rakaman dengan menggunakan pita rakaman untuk menemu bual informan di setiap lokasi kajian. Sebelum memulakan sesi soal jawab untuk mengumpulkan data kajian, pengkaji telah meminta izin secara lisan dan memaklumkan kepada informan bahawa perbualan ini akan dirakam menggunakan pita rakaman. Apabila pihak informan bersetuju perbualan ini dirakam, pita rakaman diletakkan berhampiran pengkaji dan informan.

Untuk kajian, teknik rakaman adalah yang terbaik. Hal ini kerana maklumat yang diperolehi melalui teknik ini akan dapat disimpan untuk masa yang lebih lama untuk digunakan sebagai rujukan. Setiap perbualan informan dan soalan yang diajukan dirakam secara sedar dalam kajian ini. Selepas itu, setiap rakaman perbualan yang berkaitan dengan data kajian ini ditranskripsikan dalam bentuk fonetik. Lambang fonetik antarabangsa (IPA) digunakan untuk transkripsi data. Sepanjang temu bual dengan informan, teknik transkripsi digunakan semasa mencatat hasil data yang diperolehi di lapangan. Pengkaji turut menggunakan teknik pemerhatian ikut serta untuk melengkapkan data. Teknik ini digunakan oleh pengkaji untuk memastikan apa yang diujarkan oleh informan mengenai data yang dibincangkan adalah betul dengan melihat sendiri ujaran yang keluar daripada mulut informan. Pengkaji turut serta dalam perbualan dan menulis sedikit tentang perkara yang berkaitan dengan tajuk kajian. Pengkaji mencatat dan bertanya kembali kepada informan sekiranya mendengar perkataan yang kurang jelas. Memandangkan

percakapan adalah alamiah dan spontan, teknik ini sesuai untuk digunakan.

Seterusnya, kaedah pemaparan (data yang dianalisis dipaparkan serta dibandingkan dalam bentuk jadual terhadap ciri linguistik yang berlaku dan dihuraikan berdasarkan sumber data yang diperolehi di lapangan) dan analisis data (dibincangkan berdasarkan tatacara yang terdapat dalam perbandingan rekonstruksi dalaman dan menggunakan peristilahan yang terdapat dalam bidang linguistik bandingan serta membincangkan hasil penemuan) turut digunakan. Kajian ini menggunakan pendekatan ilmu perbandingan bahasa (diperkenalkan oleh seorang hakim kolonial, William Jones yang tiba di Culcatta pada tahun 1783 serta berusaha untuk mempelajari bahasa Sanskerta untuk mengetahui sistem undang-undang di India. Melalui proses belajar itu, Jones mulai sedar adanya hubungan erat antara Sanskerta, Latin dengan Yunani. Sebelumnya telah mengarang buku *Grammar of the Persian language* pada tahun 1771). Dengan wawasan itu, Jones mencetuskan permulaan ilmu linguistik moden-pidato disampaikan kepada anggota Persatuan Asia Diraja Benggala 1786, berjudul 'The Third Anniversary Discourse.' Esei inilah yang mengasaskan ilmu linguistik sejarawi dan pengkajian bahasa Keluarga Indo-Eropah (Jones, 1990). Manakala, William Morris Wade pula memperkenalkan pendekatan rekonstruksi dalaman pada tahun 1960-an (Campbell, 2001, 2004). Pendekatan rekonstruksi dalaman yang telah dimanfaatkan oleh Adelaar (1985), Crowley (1992), Campbell (2001, 2004), Collins (1986, 1989), dan Aman (2008) telah digunakan untuk mencapai semua objektif kajian.

Kajian ini melihat ciri retensi dan inovasi DMJ daripada BMP dengan menggunakan susunan bahasa Melayik Purba (BMP) yang dibangunkan oleh Adelaar (1985) sebagai asas perbandingan. Adelaar merekonstruksikan BMP pada tahun 1985. Oleh itu, susunan bahasa Melayik Purba ini digunakan sebagai asas untuk membandingkan varian DMJ bagi mencapai objektif kajian. BMP digunakan kerana BMP ialah bahasa Melayu yang lebih tua hasil daripada rekonstruksi dalaman yang telah dilakukan oleh Adelaar (1985). Oleh itu, bolehlah dikatakan bahawa BMP menyebabkan variasi yang berlaku dalam dialek Melayu lain.

## ANALISIS DAN PERBINCANGAN

### Perbandingan Fonem Bahasa Melayik Purba dengan Dialek Melayu Jugra

Bahagian ini adalah untuk membandingkan BMP dengan DMJ, yang dibatasi oleh elemen perubahan fonem dan fonotaktik untuk mencari elemen kedinamikan dan

ketahanan bahasa. Ini memenuhi tuntutan sebenar ahli linguistik bandingan. Kajian ini tidak akan membincangkan perbandingan leksikal dan maklumat klasifikasi kerana kajian ini terhad dalam tempoh setahun. Perbincangan bermula dengan:

- (1) membandingkan penyebaran konsonan dan separuh vokal BMP dengan varian DMJ dan
- (2) membincang status retensi bersama dan inovasi dalam ragam DMJ.

### Perbandingan Fonem Konsonan BMP dengan DMJ

Konsonan BMP yang dikemukakan oleh Adelaar (1985) dipaparkan sebelum membandingkan BMP dengan DMJ. Jadual 1 berikut menunjukkan rupa bentuk konsonan BMP.

#### BMP \*p

Konsonan plosif BMP \*p diturunkan secara teratur di setiap posisi kata dalam semua varian. Perbandingan penyebaran konsonan

Jadual 1  
*Inventori konsonan BMP*

Cara Sebutan	Daerah Sebutan	Dua-Bibir	Gigi-Gusi	Lelangit Keras	Lelangit Lembut	Pita Suara
Letupan/ Plosif	Tbs Bs	*p *b	*t *d		*k *g	*ʔ
Afrikat/ Afrikat	Tbs Bs			*tʃ *dʒ		
Frikatif/ Frikatif	Tbs Bs		*s		*ʎ	*h
Sengau/ Nasal	Tbs Bs	*m	*n	*ɲ	*ŋ	
Sisian/Lateral	Bs		*l			
Separuh Vokal	Tbs Bs	*w		*j		

Sumber: Adelaar (1985)

BMP \*p > [p] DMJ ditunjukkan dalam Jadual 2.

- BMP \*pindik ‘pendek’ > VKLNG, VBNDR dan VPP pendeʔ;
- BMP \*pandzaŋ ‘panjang’ > VKLNG, VBNDR dan VPP pandzaŋ;
- BMP \*panas ‘panas’ > VKLNG, VBNDR dan VPP panas;
- BMP \*pəgaŋ ‘pegang’ > VKLNG, VBNDR dan VPP pəgaŋ;
- BMP \*əmpat ‘empat’ > VKLNG, VBNDR dan VPP əmpat;
- BMP \*apa ‘apa’ > VKLNG, VBNDR dan VPP apə;
- BMP \*siapa ‘siapa’ > VKLNG dan VPP sapə; VBNDR siapə;
- BMP \*sajaŋ ‘sayap’ > VKLNG, VBNDR dan VPP sajaŋ;
- BMP \*asəp ‘asap’ > VKLNG, VBNDR dan VPP asap.

Jadual 2  
Perbandingan sebaran konsonan plosif BMP \*p > [p] dan DMJ

Posisi BMP/DMJ	Awal Kata	Tengah Kata	Akhir Kata
BMP	[*p-]	[*p-]	[*p-]
VKLNG	[p-]	[p-]	[p-]
VBNDR	[p-]	[p-]	[p-]
VPP	[p-]	[p-]	[p-]

**BMP \*t**

Pada semua kedudukan, setiap varian DMJ mengekalkan konsonan plosif BMP \*t secara teratur. Sumber data yang diperoleh di lapangan dan Jadual 3 menunjukkan perbandingan sebaran plosif BMP \*t > [t] DMJ seperti berikut:

- BMP \*tulan ‘tulang’ > VKLNG, VBNDR, dan VPP tulaŋ;

- BMP \*taŋan ‘tangan’ > VKLNG laŋan; VBNDR dan VPP taŋan;
- BMP \*dataŋ ‘datang’ > VKLNG, VBNDR, VPP dataŋ;
- BMP \*kitaʔ ‘kita’ > VKLNG, VBNDR, VPP kitə;
- BMP \*kulit ‘kulit’ > VKLNG, VBNDR dan VPP kulet;
- BMP \*yambut ‘rambut’ > VKLNG dan VBNDR; VPP yambut.

Jadual 3  
Perbandingan sebaran konsonan plosif BMP \*t > [t] dan DMJ

Posisi BMP/DMJ	Awal Kata	Tengah Kata	Akhir Kata
BMP	[*t-]	[*t-]	[*t-]
VKLNG	[t-]	[t-]	[t-]
VBNDR	[t-]	[t-]	[t-]
VPP	[t-]	[t-]	[t-]

**BMP \*k**

Semua varian DMJ mengekalkan konsonan plosif BMP \*k dengan teratur pada kedua-dua posisi awal dan tengah. Namun begitu, sesetengah data yang ditemui, contohnya data yang menunjukkan pada posisi akhir kata BMP \*k, didapati telah berlakunya inovasi secara teratur dalam semua varian apabila \*-k > [-ʔ]. Sumber data berikut dan Jadual 4 menunjukkan bandingan sebaran konsonan plosif BMP \*k > [k] atau [ʔ] dalam varian DMJ.

- BMP \*kunit ‘kuning’ > VKLNG, VBNDR dan VPP kuniŋ;
- BMP \*kitaʔ ‘kita’ > VKLNG, VBNDR dan VPP kitə;
- BMP \*akay ‘akar’ > VKLNG, VBNDR dan VPP aka;

BMP \*bakay ‘bakar’ > VKLNG bako;  
 VBNDR baka; VPP bakaw;  
 BMP \*baik ‘baik’ >VKLNG, VBNDR  
 dan VPP bajə?  
 BMP \*pindik ‘pendek’ >VKLNG,  
 VBNDR dan VPP pende?.

Jadual 4  
 Perbandingan sebaran konsonan plosif BMP \*k > [k] dan DMJ

Posisi BMP/DMJ	Awal Kata	Tengah Kata	Akhir Kata
BMP	[*k-]	[*-k-]	[-k]
VKLNG	[k-]	[-k-]	*-k > [-ʔ]
VBNDR	[k-]	[-k-]	*-k > [-ʔ]
VPP	[k-]	[-k-]	*-k > [-ʔ]

### BMP \*ʔ

Konsonan plosif BMP \*ʔ di posisi akhir kata diturunkan secara langsung dalam perkataan tertentu dalam setiap varian DMJ. Namun, ada contoh sumber data memperlihatkan di posisi akhir kata BMP\*ʔ menunjukkan telah berlakunya inovasi sporadik kepada semua varian ketika \*-ʔ > [-ø] dalam semua varian. Contoh data yang diperoleh adalah seperti berikut:

BMP \*timbaʔ ‘menembak’ > VKLNG dan VBNDR tembaʔ; VPP mənembaʔ;  
 BMP \*duaʔ ‘dua’ > VKLNG, VBNDR dan VPP duə;  
 BMP \*kitaʔ ‘kita’ > VKLNG, VBNDR dan VPP kitə;  
 BMP \*kamuʔ ‘kamu’ > VKLNG, VBNDR dan VPP kamu;  
 BMP \*manaʔ ‘mana’ > VKLNG, VBNDR dan VPP manə;  
 BMP \*iniʔ ‘ini’ > VKLNG, VBNDR dan VPP ini.

Jadual 5 menunjukkan perbandingan sebaran plosif BMP \*ʔ > [ʔ], atau [ø] dalam varian DMJ.

Jadual 5  
 Perbandingan sebaran konsonan plosif BMP \*ʔ > [ʔ] dan DMJ

Posisi BMP/DMJ	Awal Kata	Tengah Kata	Akhir Kata
BMP	-	-	[-ʔ]
VKLNG	-	-	*-ʔ > [-ʔ] atau [-ø]
VBNDR	-	-	*-ʔ > [-ʔ] atau [-ø]
VPP	-	-	*-ʔ > [-ʔ] atau [-ø]

### BMP \*b

Kesemua varian DMJ menunjukkan turunan konsonan plosif BMP \*b secara langsung di posisi awal kata. Namun begitu, dalam sesetengah data BMP \*-b telah mengalami perubahan secara sporadik pada posisi tengah kata dalam perkataan tertentu dengan berubah menjadi [-w], manakala dalam data lain ia kekal [-b-]. Contoh data dan Jadual 6 menunjukkan perbandingan sebaran plosif BMP \*b > [b], atau [w] dalam semua varian DMJ.

BMP \*bəlah ‘belah’ > VKLNG, VBNDR, VPP bəlah;  
 BMP \*bəlakəŋ ‘belakang’ > VKLNG, VBNDR, VPP blakəŋ;  
 BMP \*bəbah ‘bawah’ > VKLNG, VPP dan VBNDR bawah;  
 BMP \*yəmbut ‘rambut’ > VKLNG dan VBNDR rambut; VPP yəmbut;  
 BMP \*timbaʔ ‘menembak’ > VKLNG dan VBNDR temba; VPP mənembaʔ.

Jadual 6  
Perbandingan sebaran konsonan plosif BMP \*b > [b] dan DMJ

Posisi BMP/DMJ	Awal Kata	Tengah Kata	Akhir Kata
BMP	[*b-]	[*b-]	-
VKLNG	[b-]	*b- > [-b-] atau [-w-]	-
VBNDR	[b-]	*b- > [-b-] atau [-w-]	-
VPP	[b-]	*b- > [-b-] atau [-w-]	-

**BMP \*d**

BMP \*d turun secara langsung di posisi tengah kata dalam semua varian. Dalam sesetengah data yang ditemui didapati BMP\*d berubah secara sporadik dalam semua varian menjadi [l] pada posisi awal kata dalam perkataan tertentu. Berikut ialah contoh data, dan Jadual 7 menunjukkan perbandingan penyebaran konsonan plosif BMP \*d > [d], atau [l] dalam varian DMJ.

BMP \*di ‘di’ > VKLNG, VBNDR dan VPP di;

BMP \*dilah ‘lidah’ > VKLNG, VBNDR dan VPP lidah;

BMP \*dəkət ‘dekat’ > VKLNG, VBNDR dan VPP dəkət;

Jadual 7  
Perbandingan sebaran konsonan plosif BMP \*d > [d] dan DMJ

Posisi BMP/DMJ	Awal Kata	Tengah Kata	Akhir Kata
BMP	[*d-]	[*d-]	-
VKLNG	*d- > [d-] atau [l-]	[-d-]	-
VBNDR	*d- > [d-] atau [l-]	[-d-]	-
VPP	*d- > [d-] atau [l-]	[-d-]	-

BMP \*hidup ‘hidup’ >VKLNG dan VBNDR hidup; VPP idup.

**BMP \*g**

BMP \*g diturunkan secara teratur di kedua-dua posisi awal dan tengah kata dalam semua varian. Perbandingan penyebaran konsonan BMP \*g > [g] dalam varian DMJ ditunjukkan dalam Jadual 8 dan contoh data adalah seperti berikut:

BMP \*gigi ‘gigi’ > VKLNG, VBNDR, VPP gigi;

BMP \*gigit ‘gigit’ > VKLNG dan VPP gigit; VBNDR giget.

BMP \*pəgəŋ ‘pegang’ > VKLNG, VBNDR, VPP pəgəŋ.

BMP \*dəgəŋ ‘daging’ > VKLNG, VBNDR, VPP dəgəŋ.

Jadual 8  
Perbandingan sebaran konsonan plosif BMP \*g > [g] dan DMJ

Posisi BMP/DMJ	Awal Kata	Tengah Kata	Akhir Kata
BMP	[*g-]	[*g-]	-
VKLNG	[g-]	[-g-]	-
VBNDR	[g-]	[-g-]	-
VPP	[g-]	[-g-]	-

**BMP \*tʃ**

BMP \*tʃ menurunkan secara langsung di kedua-dua posisi awal dan tengah kata dalam semua varian. Jadual 9 menunjukkan perbandingan penyebaran plosif BMP \*tʃ > [tʃ] dalam varian DMJ.

BMP \*tʃium ‘cium’ > VKLNG dan VBNDR tʃijum; VPP tʃium;

BMP \*kətʃil ‘kecil’ > VKLNG, VBNDR dan VPP kətʃil;



Jadual 9  
Perbandingan sebaran konsonan afrikat BMP \*tj/ > [tʃ] dan DMJ

Posisi BMP/DMJ	Awal Kata	Tengah Kata	Akhir Kata
BMP	[*tʃ-]	[-*tʃ-]	-
VKLNG	[tʃ-]	[-tʃ-]	-
VBNDR	[tʃ-]	[-tʃ-]	-
VPP	[tʃ-]	[-tʃ-]	-

### BMP \*dʒ

BMP \*dʒ menurunkan secara langsung di kedua-dua posisi awal dan tengah kata dalam semua varian. Sumber data berikut dan Jadual 10 menunjukkan perbandingan penyebaran afrikat BMP \*dʒ > [dʒ] dalam varian DMJ.

- BMP \*dʒatuh ‘jatuh’ > VKLNG dʒatuh; VBNDR dan VPP dʒatoh;
- BMP \*dʒalan ‘jalan’ > VKLNG, VBNDR dan VPP dʒalan;
- BMP \*hidʒaw ‘hijau’ > VKLNG dan VPP idʒaw; VBNDR hidʒaw;

Jadual 10  
Perbandingan sebaran konsonan afrikat BMP \*dʒ > [dʒ] dan DMJ

Posisi BMP/DMJ	Awal Kata	Tengah Kata	Akhir Kata
BMP	[*dʒ-]	[-*dʒ-]	-
VKLNG	[dʒ-]	[-dʒ-]	-
VBNDR	[dʒ-]	[-dʒ-]	-
VPP	[dʒ-]	[-dʒ-]	-

### BMP \*s

BMP\*s menurunkan secara langsung dan teratur di semua posisi kata dalam semua varian. Perbandingan sebaran frikatif BMP \*s > [s] dalam varian DMJ ditunjukkan dalam Jadual 11 dan contoh data adalah seperti berikut:

- BMP \*sakit ‘sakit’ > VKLNG sakit; VBNDR dan VPP saket;
- BMP \*sajap ‘sayap’ > VKLNG, VBNDR dan VPP sajap;
- BMP \*masak ‘masak’ > VKLNG, VBNDR dan VPP masaʔ;
- BMP \*busuk ‘busuk’ > VKLNG, VBNDR dan VPP busuʔ;
- BMP \*tikus ‘tikus’ > VKLNG, VBNDR dan VPP tikus;
- BMP \*panas ‘panas’ > VKLNG, VBNDR dan VPP panas.

Jadual 11  
Perbandingan sebaran konsonan frikatif BMP \*s > [s] dan DMJ

Posisi BMP/DMJ	Awal Kata	Tengah Kata	Akhir Kata
BMP	[*s-]	[-*s-]	[-*s]
VKLNG	[s-]	[-s-]	[-s]
VBNDR	[s-]	[-s-]	[-s]
VPP	[s-]	[-s-]	[-s]

### BMP \*h

BMP \*h turun secara teratur di awal, tengah dan akhir kata dalam semua varian. Namun, apabila BMP \*h > ∅ di awal kata, sesetengah data memperlihatkan semua varian melalui perubahan sporadik pada posisi ini. Contoh data dan Jadual 12 menunjukkan perbandingan sebaran frikatif BMP \*h > [h] atau [∅] dalam varian DMJ.

- BMP \*hutan ‘hutan’ > VKLNG dan VBNDR utan; VPP otan;
- BMP \*hidup ‘hidup’ > VKLNG dan VBNDR hidup, VPP idup;
- BMP \*habu ‘bahu’ > VKLNG, VBNDR dan VPP abu;

BMP \*hitəm ‘hitam’ > VKLNG dan VPP hitam; VBNDR hitam;  
 BMP \*hati ‘hati’ > VKLNG ati; VBNDR dan VPP hati;  
 BMP \*dʒahət ‘jahat’ > VKLNG, VBNDR dan VPP dʒahat;  
 BMP \*dahan ‘dahan’ > VKLNG, VBNDR dan VPP dahan;  
 BMP \*babah ‘bawah’ > VKLNG, VBNDR dan VPP bawah.

\*ɣ menurunkan secara terus dalam semua varian, tetapi mengalami inovasi secara sporadik dalam VKLNG dan VBNDR ini menjadi [r] ataupun [ø] dalam sesetengah kata. Seterusnya bagi VKLNG pula, pada posisi akhir kata inovasi secara sporadik berlaku apabila BMP \*ɣ menjadi [-r], [-w] ataupun [-ø]. Contoh data yang diperoleh adalah seperti berikut:

Jadual 12  
 Perbandingan sebaran konsonan frikatif BMP \*h > [h] dan DMJ

Posisi BMP/DMJ	Awal Kata	Tengah Kata	Akhir Kata
BMP	[*h-]	[-h-]	[-h]
VKLNG	[*h-] > [h-] atau [ø-]	[-h-]	[-h]
VBNDR	[*h-] > [h-] atau [ø-]	[-h-]	[-h]
VPP	[*h-] > [h-] atau [ø-]	[-h-]	[-h]

**BMP \*ɣ**

BMP\*ɣ diturunkan secara langsung pada setiap posisi kata dalam VPP. Namun begitu, sesetengah data memperlihatkan posisi awal kata, BMP \*ɣ melalui inovasi secara langsung dan teratur menjadi [r] untuk VKLNG dan VBNDR, menjadi inovasi secara sporadik dalam VPP menjadi [r] atau [ɣ]. Pada posisi tengah kata pula, BMP \*ɣ diturunkan secara langsung dalam varian VKLNG dan VPP. Sementara itu, inovasi secara sporadik untuk sebahagian data yang ditemui di posisi tengah kata turut berubah menjadi [-r-] dan [-ɣ-], dalam VKLNG dan inovasi secara teratur menjadi [-r-] dalam VBNDR. Di akhir kata pula, BMP

BMP \*ɣambut ‘rambut’ > VKLNG dan VBNDR rambut; VPP ɣambut;  
 BMP \*ɣumput ‘rumput’ > VKLNG, VBNDR dan VPP rumput;  
 BMP \*təɣbaŋ ‘terbang’ > VKLNG dan VBNDR tərbaŋ; VPP təɣbaŋ;  
 BMP \*bəɣat ‘berat’ > VKLNG dan VPP bəɣat; VBNDR bərət;  
 BMP \*həɣi ‘hari’ > VKLNG dan VPP həɣi; VBNDR həri;  
 BMP \*miɣah ‘merah’ > VKLNG dan VBNDR merah; VPP meɣah;  
 BMP \*diɣi ‘diri’ > VKLNG dan VPP diɣi; VBNDR bədiri;  
 BMP \*gəɣut ‘garu’ > VKLNG dan VBNDR garu; VPP gəɣu;  
 BMP \*buɣuŋ ‘burung’ > VKLNG buruŋ VBNDR buruŋ; VPP buɣuŋ;  
 BMP \*tələɣ ‘telur’ > VKLNG tələ; VBNDR dan VPP tələ;  
 BMP \*kəɣəbaw ‘kerbau’ > VKLNG dan VBNDR; VPP kəɣəbaw;  
 BMP \*liheɣ ‘leher’ > VKLNG dan VPP leheɣ; VBNDR lehe;  
 BMP \*tiduɣ ‘tidur’ > VKLNG, VBNDR dan VPP tidu;  
 BMP \*ikuɣ ‘ekor’ > VKLNG ekor; VBNDR dan VPP eko;  
 BMP \*uləɣ ‘ular’ > VKLNG dan VBNDR ula; VPP ulaw;

BMP \*pasiy ‘pasir’ > VKLNG, VBNDR dan VPP pase;  
 BMP \*aiy ‘air’ > VKLNG, VBNDR dan VPP aje;  
 BMP \*bakay ‘bakar’ > VKLNG bako;  
 VBNDR baka; VPP bakaw;  
 BMP \*bəsay ‘besar’ > VKLNG dan VPP bəso;  
 VBNDR bəsa;  
 BMP \*libay ‘lebar’ > VKLNG lebo;  
 VBNDR lebar; VPP ləbaw.

Jadual 13 menunjukkan perbandingan sebaran frikatif BMP \*y> [y], [r], [w] atau [ø] untuk varian DMJ.

Jadual 13  
 Perbandingan sebaran konsonan frikatif lelangit lembut BMP \*y> [y] dan DMJ

Posisi BMP/DMJ	Awal Kata	Tengah Kata	Akhir Kata
BMP	[*y-]	[*-y-]	[*-y]
VKLNG	[r-]	[*-y-] > [-y-] atau [-r-]	[*-y] > [-r] atau [-ø]
VBNDR	[r-]	[-r-]	[*-y] > [-r] atau [-ø]
VPP	[*y-] > [y-] atau [r-]	[-y-]	[*-y] > [-r], [-w] atau [-ø]

**BMP \*m**

BMP \*m menurunkan secara langsung dan teratur pada semua posisi kata dalam semua varian DMJ. Contoh data dan Jadual 14 menunjukkan perbandingan penyebaran konsonan BMP \*m > [m] dalam varian DMJ.

BMP \*muntah ‘muntah’ > VKLNG, VBNDR dan VPP muntah;  
 BMP \*makan ‘makan’ > VKLNG, VBNDR dan VPP makan;

BMP \*səmpit ‘sempit’ > VKLNG səmpit; VBNDR dan VPP səmpet;  
 BMP \*yumput ‘rumput’ > VKLNG, VBNDR dan VPP rumput;  
 BMP \*daləm ‘dalam’ > VKLNG, VBNDR dan VPP dalam;  
 BMP \*maləm ‘malam’ > VKLNG, VBNDR dan VPP malam.

Jadual 14  
 Perbandingan sebaran konsonan nasal BMP \*m> [m] dan DMJ

Posisi BMP/DMJ	Awal Kata	Tengah Kata	Akhir Kata
BMP	[*m-]	[*-m-]	[*-m]
VKLNG	[m-]	[-m-]	[-m]
VBNDR	[m-]	[-m-]	[-m]
VPP	[m-]	[-m-]	[-m]

**BMP \*n**

BMP \*n menurunkan secara langsung dan teratur untuk semua varian di awal, tengah dan akhir perkataan. Namun, dalam sesetengah sumber data mengalami inovasi secara sporadik dalam VKLNG dan VBNDR pada posisi awal menjadi [-t] dan berubah menjadi [ŋ] pada posisi akhir kata untuk semua varian sedangkan data yang lain kekal [n-]. Contoh data serta Jadual 15 memaparkan perbandingan sebaran nasal BMP \*n > [n], [t] atau [ŋ] untuk varian DMJ.

BMP \*naik ‘naik’ > VKLNG, VBNDR dan VPP nai?;  
 BMP \*nipis ‘nipis’ > VKLNG tipes, VBNDR tipis; VPP nipes;  
 BMP \*anak ‘anak’ > VKLNG, VBNDR dan VPP ana?;  
 BMP \*bunuh ‘bunuh’ > VKLNG, VBNDR dan VPP bunuh;

BMP \*dʒalan ‘dʒalan’ > VKLNG, VBNDR dan VPP dʒalan;  
 BMP \*tulan ‘tulang’ > VKLNG, VBNDR dan VPP tulan;  
 BMP \*makan ‘makan’ > VKLNG, VBNDR dan VPP makan;  
 BMP \*awan ‘awan’ > VKLNG, VBNDR dan VPP awan.

**BMP \*ɲ**

Semua varian DMJ menurunkan BMP \*ɲ di awal dan tengah kata. Sumber data dan perbandingan sebaran nasal BMP \*ɲ > [ɲ] dalam varian DMJ adalah seperti berikut dan dalam Jadual 16.

BMP \*ɲamuk ‘nyamuk’ > VKLNG, VBNDR dan VPP ɲamoʔ;  
 BMP \*kupaɲ ‘kunyah’ > VKLNG, VBNDR dan VPP kupaɲ.

**BMP \*ŋ**

BMP \*ŋ diturunkan di tengah dan akhir kata untuk semua varian DMJ. Contoh data dan perbandingan sebaran nasal BMP \*ŋ > [ŋ] dalam varian DMJ ditunjukkan dalam Jadual 17.

BMP \*laŋit ‘langit’ > VKLNG dan VBNDR laŋit; VPP laŋit;  
 BMP \*aŋin ‘angin’ > VKLNG, VBNDR dan VPP aŋin;  
 BMP \*dataŋ ‘datang’ > VKLNG, VBNDR dan VPP dataŋ;  
 BMP \*bəlaŋaŋ ‘belakang’ > VKLNG, VBNDR dan VPP blaŋaŋ.

**BMP \*l**

BMP \*l menurunkan secara langsung dan teratur pada semua posisi kata dalam semua varian DMJ. Sumber data adalah seperti

Jadual 15  
 Perbandingan sebaran konsonan nasal BMP \*n > [n] dan DMJ

Posisi BMP/DMJ	Awal Kata	Tengah Kata	Akhir Kata
BMP	[*n-]	[*n-]	[*n]
VKLNG	[*n-] > [n-] atau [t-]	[n-]	[*n] > [n] atau [-ŋ]
VBNDR	[*n-] > [n-] atau [t-]	[n-]	[*n] > [n] atau [-ŋ]
VPP	[*n-] > [n-]	[n-]	[*n] > [n] atau [-ŋ]

Jadual 16  
 Perbandingan sebaran konsonan nasal BMP \*ɲ > [ɲ] dan DMJ

Posisi BMP/DMJ	Awal Kata	Tengah Kata	Akhir Kata
BMP	[*ɲ-]	[*ɲ-]	-
VKLNG	[ɲ-]	[ɲ-]	-
VBNDR	[ɲ-]	[ɲ-]	-
VPP	[ɲ-]	[ɲ-]	-

Jadual 17  
 Perbandingan sebaran konsonan nasal BMP \*ŋ > [ŋ] dan DMJ

Posisi BMP/DMJ	Awal Kata	Tengah Kata	Akhir Kata
BMP	-	[*ŋ-]	[*ŋ]
VKLNG	-	[ŋ-]	[ŋ]
VBNDR	-	[ŋ-]	[ŋ]
VPP	-	[ŋ-]	[ŋ]

berikut dan perbandingan penyebaran konsonan BMP \*l > [l] dalam varian DMJ dipaparkan dalam Jadual 18. Fenomena turunan ini dilihat persamaannya dengan dialek Melayu Tioman Aur Pemanggil (DMTAP).

BMP \*laki ‘laki’ > VKLNG, VBNDR dan VPP laki;

BMP \*lihey ‘leher’ > VKLNG dan VPP leher; VBNDR lehe;

BMP \*kulit ‘kulit’ > VKLNG, VBNDR dan VPP kulet;

BMP \*tulan ‘tulang’ > VKLNG, VBNDR dan VPP tulang;

BMP \*pukul ‘pukul’ > VKLNG bantaj; VBNDR dan VPP pukul;

BMP \*tumpul ‘tumpul’ > VKLNG tumpul; VBNDR tumpul; VPP tumpul (Ab Hamid et al., 2017, p. 238).

Jadual 18

Perbandingan sebaran konsonan lateral BMP \*l > [l] dan DMJ

Posisi BMP/DMJ	Awal Kata	Tengah Kata	Akhir Kata
BMP	[*l-]	[*-l-]	[*-l]
VKLNG	[l-]	[-l-]	[-l]
VBNDR	[l-]	[-l-]	[-l]
VPP	[l-]	[-l-]	[-l]

### BMP \*w

Dalam semua varian DMJ, BMP \*w diturunkan secara teratur di tengah dan akhir kata. Sumber data serta perbandingan penyebaran konsonan BMP \*w > [w] dalam varian DMJ dipaparkan dalam Jadual 19. Fenomena turunan ini dilihat

persamaannya dengan dialek Melayu Tioman Aur Pemanggil.

BMP \*tawa? ‘tertawa’ > VKLNG dan VPP tawə; VBNDR tətawa;

BMP \*awan ‘awan’ > VKLNG, VBNDR dan VPP awan;

BMP \*hidzaw ‘hijau’ > VKLNG dan VPP V idzaw; BNDR hidzaw

BMP \*kəyəbaw ‘kerbau’ > VKLNG dan VBNDR; VPP kəyəbaw (Ab Hamid et al., 2017, p. 238).

Jadual 19

Perbandingan sebaran konsonan separuh vokal BMP \*w > [w] dan DMJ

Posisi BMP/DMJ	Awal Kata	Tengah Kata	Akhir Kata
BMP	-	[-w-]	[-w]
VKLNG	-	[-w-]	[-w]
VBNDR	-	[-w-]	[-w]
VPP	-	[-w-]	[-w]

### BMP \*j

Dalam semua varian DMJ, BMP \*j diturunkan secara teratur di tengah dan akhir kata. Sumber data adalah seperti berikut serta perbandingan penyebaran separuh vokal BMP \*j > [j] dalam varian DMJ dipaparkan dalam Jadual 20. Fenomena turunan ini dilihat persamaannya dengan dialek Melayu Tioman Aur Pemanggil.

BMP \*kaju? ‘kayu’ > VKLNG, VBNDR dan VPP kaju;

BMP \*sajap ‘sayap’ > VKLNG, VBNDR dan VPP sajap;

BMP \*sunaj ‘sungai’ > VKLNG dan VBNDR sunaj; VPP sənaj. (Ab Hamid et al., 2017, p. 238).

Jadual 20  
Perbandingan sebaran konsonan separuh vokal BMP  
\*j> [j] dan DMJ

Posisi BMP/DMJ	Awal Kata	Tengah Kata	Akhir Kata
BMP	-	[-j-]	[-*j]
VKLNG	-	[-j-]	[-j]
VBNDR	-	[-j-]	[-j]
VPP	-	[-j-]	[-j]

### Perbincangan Perbandingan Konsonan dan Separuh Vokal BMP Dengan DMJ

Untuk mencapai objektif kajian, perbandingan antara BMP dengan varian DMJ telah dipaparkan. Hasil perbandingan yang telah dilaksanakan terhadap konsonan dan separuh vokal dalam Jadual 1 hingga 20 memperlihatkan bahawa terdapat konsonan dan separuh vokal BMP yang diturunkan secara langsung dalam semua DMJ. Untuk konsonan BMP \*p, \*t, \*s, \*m, dan \*l memperlihatkan penurunan secara langsung di semua posisi kata dalam semua varian dan fenomena ini dan situasi ini turut berlaku dalam dialek Melayu Tioman-Aur-Pemanggil (DMTAP; Ab Hamid et al., 2017). Retensi turut berlaku bagi konsonan BMP \*k di posisi awal dan tengah kata, \*b di awal kata, \*d di tengah kata, \*g dan tʃ di awal dan tengah kata sama dengan situasi DMTAP (Ab Hamid et al., 2017) \*h di tengah dan akhir kata sama dengan situasi DMTAP (Ab Hamid et al., 2017), \*n di tengah kata, \*ŋ, \*w dan \*j di tengah dan akhir kata sama dan sama situasi yang berlaku dalam DMTAP (Ab Hamid et al., 2017). Turunan langsung ini secara tidak langsung memperlihatkan DMJ dan DMTAP adalah daripada rumpun yang sama dengan

BMP dan memperlihatkan keterikatan antara kedua-dua dialek ini dengan induknya.

Oleh itu, keputusan perbandingan ini menunjukkan bahawa terdapat inovasi dan retensi BMP yang diturunkan dalam varian DMJ yang secara tidak langsung mengukuhkan bahawa ilmu linguistik sejarawi dapat mencerakinkan hubungan dan perubahan varian semasa dengan bahasa induknya melalui perbandingan diakronik yang telah dilaksanakan. Sehubungan itu, penemuan bolehlah dikatakan dapat membantu mengukuhkan teori *The Malay of Sundaland* kerana ia jelas menunjukkan bahawa varian DMJ dan DMTAP berasal dari tanah ranah orang Melayu. Selain ciri retensi ini, terdapat data yang memperlihatkan ciri inovasi telah berlaku dalam varian semasa. Perbincangan berkaitan inovasi yang telah berlaku dapat dilihat dalam bahagian analisis inovasi bersama dan perbincangan sebagaimana yang terdapat dalam Jadual 21.

### Analisis Inovasi Bersama dan Perbincangan

Dalam perbincangan sebelum ini, pengkaji telah membandingkan konsonan BMP dengan DMJ untuk menunjukkan bahawa beberapa varian mempunyai fonem yang kekal (retensi), manakala beberapa varian DMJ telah mengalami perubahan (inovasi) daripada bahasa induknya. Oleh itu, bahagian ini akan menunjukkan dan membincangkan inovasi fonologi ataupun perselisihan fonetik yang berlaku dalam setiap DMJ yang menyebabkan keterpisahan DMJ dengan BMP. Jadual 21 menggambarkan 13 ciri inovasi fonologi ataupun perselisihan

Jadual 21

*Inovasi (perubahan) fonologi atau perselisihan fonetis BMP dengan DMJ*

No.	BMP	Posisi Kata	Inovasi Fonologi atau Perselisihan Fonetis BMP dengan DMJ	Jenis Inovasi
1.	*-k	Akhir Kata	BMP*-k > [-ʔ] dalam semua VJRA.	Teratur
2.	*-ʔ	Akhir Kata	BMP *-ʔ> [-ø] dalam semua varian; sesetengah data yang lain kekal [-ʔ].	Sporadik
3.	*-b-	Tengah Kata	BMP *-b- > [w] dalam semua varian; data yang lain kekal [-b-].	Sporadik
4.	*d-	Awal Kata	BMP *d- > [l-] dalam semua varian; data yang lain kekal [d-].	Sporadik
5.	*h-	Awal Kata	BMP *h- > [ø-r] semua VJRA; data yang lain kekal [h-] dalam semua varian.	Sporadik
6.	*ɣ-	Awal Kata	BMP *ɣ- > [r-] VKLNG dan VBNDR; data yang lain kekal [ɣ-] dan [r-] dalam VPP.	Teratur
7.	*ɣ-	Awal Kata	BMP **ɣ- > [ɣ-] dan [r-] dalam VPP.	Sporadik
8.	*-ɣ-	Tengah Kata	BMP *-ɣ- > [-r-] dan [-ɣ-], dalam VKLNG	Sporadik
9.	*-ɣ-	Tengah Kata	BMP *-ɣ- > [-r-], dalam VBNDR	Teratur
10.	*-ɣ	Akhir Kata	BMP *-ɣ > [-r] dan [-ø] VKLNG dan VBNDR; VPP [-r], [-w] dan [-ø].	Sporadik
11.	*-ɣ	Akhir Kata	BMP *-ɣ > [-r], [-w] dan [-ø] VPP; VKLNG dan VBNDR [-r] dan [-ø].	Sporadik
12.	*n-	Awal Kata	BMP *n- > [t-] VKLNG dan VBNDR; data yang lain kekal [t-] dalam semua varian.	Sporadik
13.	*-n	Akhir Kata	BMP *-n > [-ŋ] dalam semua varian; lain-lain data kekal [-n] untuk semua varian.	Sporadik

fonetik yang dapat dikenal pasti melalui analisis dapatan perbandingan BMP dengan DMJ sebelum ini.

Setiap varian DMJ mengekalkan konsonan plosif \*k dalam BMP pada posisi awal dan tengah kata secara teratur. Walau bagaimanapun, contoh daripada data nombor 1 dalam Jadual 21 menunjukkan bahawa apabila \*-k berubah menjadi [-ʔ], dalam semua varian dan mengalami inovasi secara teratur pada posisi akhir kata. Konsonan plosif BMP \*-k diturunkan secara langsung pada posisi akhir kata dalam DMJ dalam sesetengah kata. Walau bagaimanapun, contoh data nombor 2 menunjukkan bahawa pada posisi akhir kata BMP \*[-ʔ], inovasi sporadik telah berlaku

dalam semua varian apabila \*[-ʔ] berubah menjadi [-ø].

Selanjutnya, setiap varian DMJ menunjukkan turunan secara langsung konsonan plosif BMP \*b pada posisi awal kata. Namun begitu, BMP\*-b- berubah secara sporadik dalam semua varian menjadi [-w-] dalam beberapa data, manakala yang lain kekal [-b-] dalam semua varian, seperti dalam data 3. Dalam semua varian, Jadual 21 pada item nombor 4 \*d dalam BMP berubah menjadi [l-] pada posisi awal kata dalam perkataan tertentu, dan dalam beberapa data ia kekal [d-]. \*h dalam BMP diturunkan secara teratur pada posisi tengah dan akhir kata dalam semua varian, seperti yang ditunjukkan oleh item nombor 5.

Walau bagaimanapun, pada posisi awal kata perubahan secara sporadik telah berlaku dalam sesetengah data dalam semua varian apabila \*h- dalam BMP menjadi [ø-] pada posisi ini dan data yang lain kekal sebagai [h-].

Dalam data 6 sehingga 11 memperlihatkan pada posisi awal kata, BMP \*y- telah mengalami inovasi secara teratur berubah menjadi [r-] untuk VKLNG dan VBNDR, menjadi inovasi secara sporadik dalam VPP menjadi [r-] ataupun [y-]. Pada posisi tengah kata pula, BMP \*-y- diturunkan secara langsung dalam varian VKLNG dan VPP. Namun, diposisi tengah kata ini, inovasi secara sporadik dalam sebahagian data turut berlaku menjadi [-r-] dan [-y-], dalam VKLNG dan inovasi secara teratur menjadi [-r-] dalam VBNDR. Pada posisi akhir kata pula, BMP \*-y diturunkan secara langsung dalam semua varian, namun mengalami inovasi secara sporadik dalam VKLNG dan VBNDR ini menjadi [-r] ataupun [-ø] dalam sesetengah kata. Seterusnya bagi VKLNG pula, pada posisi akhir kata inovasi secara sporadik berlaku apabila BMP \*-y menjadi [-r], [-w] atau [-ø].

Jadual 21 memperlihatkan BMP \*n menurun secara teratur dalam semua varian pada posisi awal, tengah dan akhir kata. Namun begitu, pada data 12 dan 13 dalam sesetengah data BMP \*n mengalami inovasi secara sporadik dalam VKLNG dan VBNDR pada posisi awal menjadi [-t] dan [ŋ-] pada posisi akhir kata dalam semua varian, sedangkan data yang lain kekal [n-].

Hasil analisis perselisihan fonetis ini menunjukkan bahawa terdapat satu

inovasi secara teratur berlaku dalam semua varian, seperti yang ditunjukkan pada item nombor 1. Inovasi secara teratur yang telah berlaku memperlihatkan kesemua varian ini mengalami perubahan daripada bentuk purbanya. Keteraturan inovasi dalam VBNDR dalam data 6 dan 9 memperlihatkan keterpisahan yang agak jauh daripada BMP berbanding VKLNG dan VPP.

Keterpisahan ini juga dikaitkan dengan faktor VBNDR adalah VBNDR, sebuah kampung tradisional Melayu, berfungsi sebagai pusat pemerintahan kedua di Selangor selepas Kuala Selangor. Pada tahun 1898, Sultan Selangor ke-5, Almarhum Duli Yang Maha Mulia (DYMM) Sultan Ala'eddin Sulaiman Shah ibni Almarhum Raja Muda Musa, membuka Kampung Bandar. Kampung ini dikenali sebagai Bandar Temasya oleh penduduk setempat kerana ia sesuai dengan pusat kerajaan dan pentadbiran Selangor. Memandangkan VBNDR pernah menjadi pusat pemerintahan, sudah tentulah kawasan ini dikunjungi oleh pelbagai kaum, etnik dan bahasa dari luar.

Sekiranya dilihat dalam semua inovasi daripada item 1 sehingga 13, didapati hubungan VPP agak rapat dengan BMP kerana kekerapan dan inovasi daripada bentuk purba kelihatan sedikit berbanding dengan VBNDR dan VKLNG. Sekiranya dilihat pada data 6 posisi awal kata, inovasi secara teratur telah berlaku ketika BMP \*y- berubah menjadi [r-] dalam VKLNG dan VBNDR dan data yang lain kekal [y-] dan [r-] dalam VPP. Data ini mengukuhkan bahawa Kampung Permatang Pasir ialah



salah satu kampung yang asal dan yang paling penting di Jugra bagi melambangkan penutur natif dialek Melayu Jugra. Kampung ini didiami oleh kira-kira seribu lebih orang. Sebahagian penduduk di kampung ini berketurunan Jawa. Tambahan pula, terdapat sebuah muzium di Kampung Permatang Pasir yang menyimpan maklumat sejarah lebih daripada seratus tahun tentang Kesultanan Melayu Selangor lama di Jugra.

## KESIMPULAN

Berdasarkan kepada kajian yang dilakukan, jelas menunjukkan bahawa varian DMJ merupakan salah satu bahasa yang mempunyai ciri-ciri yang tersendiri dalam tiga kawasan ini melalui proses fonetik dan fonologi. Sehubungan itu, kepelbagaian DMJ dalam BMP sendiri yang mendorong pengkaji untuk melakukan perbandingan tahap rendah (*lower level reconstruction*). Hubungan perbandingan BMP dengan DMJ yang dilaksanakan ini sedikit sebanyak telah merungkaikan beberapa persoalan yang belum terjawab dalam menentukan asal usul DMJ dan secara tidak langsung dapat merungkaikan tanggapan baharu yang dapat dikesan dalam hal inventori fonem BMP dan perbandingan antara varian DMJ dengan BMP. Penemuan retensi yang terdapat dalam DMJ daripada bahasa induknya BMP memperlihatkan adanya turunan langsung daripada bahasa induknya dan ini membuktikan keterikatan kekerabatan kedua-duanya di bawah satu induk yang sama iaitu rumpun Austronesia.

Seperti yang diketahui umum, pengkajian tentang dialek ini adalah salah

satu kajian yang semakin diminati. Justeru, akibat daripada minat yang mendalam untuk mencungkil perbandingan ini, pengkaji telah mengimplementasikan kajian ini dengan menggunakan kaedah tradisional dalam ilmu perbandingan. Oleh itu, bolehlah dianggap kajian ini merupakan satu kajian ‘rintis’ terhadap kajian DMJ dengan BMP yang dikaji menggunakan kaedah tradisional ini. Rintis yang dimaksudkan di sini bermakna sehingga kini masih belum ada kajian yang berusaha untuk merekonstruksi dan mengelaskan daripada sudut perbandingan BMP dengan varian DMJ dengan menggunakan kaedah tradisional. Bagi pengkaji, penerapan pendekatan ini ialah salah satu cubaan pengkaji untuk memperinci dan memantapkan lagi kajian dalam dialek ini di samping dapat merungkaikan hubungan jauh-dekatnya antara varian DMJ yang dikaji dengan BMP. Dengan ini, melalui laluan pertama yang dibuka dan disingkapkan oleh pengkaji dalam kajian ini dengan melakukan perbandingan dalam BMP dengan menggunakan kaedah tradisional ini, pengkaji menyarankan pula kajian akan datang untuk membandingkan BMP dengan dialek yang lain dengan menggunakan pendekatan yang sama.

Selain itu, pengkaji turut menyarankan supaya pengkaji akan datang dapat membuat perbandingan dari segi morfologi, sintaksis, dan semantik terhadap semua DMJ yang ada secara terperinci supaya jelas menampakkan persamaan dan perbezaan yang wujud antara kawasan terutamanya dalam mengukuhkan lagi hujah yang menyokong bahawa DMJ adalah daripada kelompok BMP. Klasifikasi

dari sudut ilmu perbandingan juga harus diteruskan. Dengan memperbanyak kajian terhadap DMJ dan BMP, akan dapat memperlihatkan dengan jelas apakah sebenarnya yang terkandung dalam bahasa Melayu dan secara tidak langsung dapat membangun dan mengukuhkan lagi teori *The Malay of Sundaland*. Oleh itu, dengan memperbanyak dan mempelbagaikan kajian dari pelbagai sudut kajian tentang dialek ini, akan dapat mengangkat dan menambahkan lagi khazanah dialek di samping dapat menambahkan kosa kata dalam bahasa Melayu itu sendiri. Oleh itu, pengkaji berharap pengkaji akan datang dapat mengkaji aspek linguistik lain dalam kajian mereka terhadap dialek lain supaya dapat mengungkapkan identiti sebenar penutur BMP.

## PENGHARGAAN

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## RUJUKAN

- Ab Hamid, N. (2014). *Rekonstruksi dan pengelasan bahasa Melanau Purba* [Tesis doktor falsafah, Universiti Kebangsaan Malaysia]. UKM Learning and Research Repository. <https://ptsldigital.ukm.my/jspui/handle/123456789/497544>
- Ab Hamid, N. (2018). Kajian awal dialek Melayu Jugra Varian Bandar. *Journal of Humanities & Social Sciences*, 5(2), 194-206.
- Ab Hamid, N. (2019a). Inventori fonem dialek Melayu Jugra di Permatang Pasir. *Jurnal Melayu*, 18(1), 29-42.
- Ab Hamid, N. (2019b). Kajian fonetik varian Kelanang: Dialek Melayu Jugra Selangor. *e-Bangi- Journal of Social Science and Humanities. Special Issues: Islamic Studies in Malaysia*, 16(2), 1-13.
- Ab Hamid, N. (2020). Komunikasi lisan dialek Melayu Jugra. *Jurnal Melayu*, (Isu Khas Disember), 517-529.
- Ab Hamid, N., & Aman, R. (2016). Varian Melanau Sarawak: Tinjauan di Melanau Mukah. *Jurnal Melayu*, 15(1), 99-112.
- Ab Hamid, N., Aman, R., & Hamid, S. A. (2018). Melanau language ancient consonant phoneme. *Dialectologia Revista Electronica*, 20, 21-42.
- Ab Hamid, N., Aman, R., & Hamid, S. A. (2017). Varian dialek Melayu Tioman-Aur-Pemanggil: Analisis linguistik bandingan. *GEMA Online® Journal of Language Studies*, 17(2), 219-244. <https://doi.org/10.17576/gema-2017-1702-13>
- Ab Hamid, N., Hamid, S. A., Aman, R., Ramli, N., Zakaria, Z., & Iswary, E. (2022). Malay dialect variants in Langkawi: A diachronic perspective analysis. *Journal of Nusantara Studies*, 7(1), 142-167.
- Adelaar, K. A. (1985). *Proto-Malayic: The reconstruction of its phonology and parts of its lexicon and morphology* [Disertasi ijazah doktor falsafah yang tidak diterbitkan, University of Leiden].
- Aman, R. (1997). *Perbandingan fonologi dan morfologi bahasa Iban* [Tesis Sarjana. Universiti Kebangsaan Malaysia]. UKM Learning and Research Repository. <https://ptsldigital.ukm.my/jspui/handle/123456789/460540>
- Aman, R. (2008). *Linguistik bandingan bahasa Bidayuhik*. Universiti Kebangsaan Malaysia.

- Aman, R., Ab. Hamid, N., & Hamid, S. A. (2015). Rekonstruksi vokal dan diftong bahasa Melanau Purba. *GEMA Online Journal of Language Studies*, 15(1), 189-206.
- Bakar, M. S. A. (1991). *Metodologi penyelidikan untuk ekonomi dan bidang-bidang berkaitan*. Universiti Kebangsaan Malaysia.
- Bellwood, P. (1985). A hypothesis for Austronesian origins. *Asian Perspectives*, 26(1), 107-117.
- Campbell, L. (2001). The history of linguistics. Dlm. M. Aronoff dan J. Rees-Miller (Pnyt.), *The handbook of linguistics* (pp. 81-104). Blackwell Publisher.
- Campbell, L. (2004). *Historical linguistic: An introduction*. The MIT Press.
- Chelaeh, M., Aman, R., Hamid, S. A., Othaman, N. N., Ruslan, S., Bakar, N. A., Salam, R. A., Fadzil, F. H. M., & Sinur, D. (2017). Penerokaan maklumat linguistik dalam dialek Melayu Jugra: Penelitian fonologi struktural. *e-Bangi Journal of Social Sciences and Humanities*, 14(3), Artikel 25.
- Collins, J. T. (1986). *Penyusunan salasilah bahasa Melayu di Malaysia*. Universiti Kebangsaan Malaysia.
- Collins, J. T. (1989). *Antologi kajian dialek Melayu*. Dewan Bahasa dan Pustaka.
- Collins, J. T. (1996). *Khazanah dialek Melayu*. Universiti Kebangsaan Malaysia.
- Collins, J. T. (1997). Ilmu linguistik: Perbandingan teori dan kenyataan. *Jurnal Dewan Bahasa*, 12(19), 1080-1087.
- Crowley, T. (1992). *An introduction to historical linguistics*. Oxford University Press.
- Dyen, I. (1965). *A lexiconstatal classification of the Austronesian languages*. Waverly Press.
- Fox, A. (1995). *Linguistics reconstruction: An introduction to theory and method*. Oxford University Press.
- Hamid, S. A., Aman, R., & Hamid, Z. (2012). Kajian akustik realisasi kontras penyuaran bunyi plosif bahasa Melayu. *GEMA Online® Journal of Language Studies*, 12(2), 745-760.
- Hasrah, M. T., Aman, R., & Hamid, S. A. (2010). Variasi dialek Pahang: Keterpisahan berasaskan jaringan sungai. *Jurnal Melayu*, 5, 315-332.
- Hudson, A. B. (1970). A note on Selako: Malayic Dayak and Land Dayak languages in Western Borneo. *The Sarawak Museum Journal*, XVIII(36-37), 301-318.
- Jones, W. (1990). *The life and mind of oriental Jones: Sir William Jones, the father of modern linguistics*. Cambridge University Press.
- Kaharuddin & Aman, R. (2011). Hukum bunyi dalam bahasa Indonesia dan bahasa Makassar. *Jurnal Melayu*, (7), 287-302.
- Kern, H. (1889). Taalkundige gegevens ter bepaling van het stamland der Maleis-Gh-Polynesische volkeren [Linguistic data to determine the ancestral land of the Malay-Gh-Polynesian peoples]. In *Verspreide Geschriften* (Vol. 7, pp. 105-120). Nijhoff.
- Mahsun. (1995). *Dialektologi diakronis sebuah pengantar*. Gajah Mada Universitas Press.
- Omar, A. H. (1991). *Kepelbagaian fonologi fialek-dialek Melayu* (Ed. ke-2). Dewan Bahasa dan Pustaka.
- Omar, A. H. (1993). *Susur galur Bahasa Melayu*. Dewan Bahasa dan Pustaka.
- Ringe, D., & Eska, J. (2013). *Historical linguistics toward a twenty-first century reintegration*. Cambridge University Press.



## **“I don’t want to do that anymore”: Motivation and Strategies to Desistance Among Juvenile Offenders in Indonesia**

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### **ABSTRACT**

Desistance plays a central role in understanding and addressing criminal behaviour. Uncovering the underlying motivation for desistance from crime can contribute to reforming current social control and crime prevention policies. This study adopts a narrative-based theory and explores the motivations for desistance among juvenile offenders in Indonesia and the strategies that juvenile offenders in Indonesia plan to use to desist from crime. This qualitative study involves six juvenile offenders in three correctional institutions in Indonesia in a semi-structured interview. The results show several emerging themes regarding motivations for desistance among juvenile offenders in Indonesia, which include transformation in identity and hope, having a positive role model, avoiding negative labelling, and filial piety. In addition, several emerging themes regarding strategies for desistance include work, finding family support, and avoiding delinquent peers. Based on this result, helping young delinquents to adopt a prosocial identity is crucial in promoting desistance in crime.

*Keywords:* Desistance from crime, Indonesia, juvenile offenders, motivation, strategies

### **INTRODUCTION**

Juvenile delinquency is a serious matter due to the worrisome rate in every part of the world. According to Davies and

Robson (2016), individuals under 18 years comprise 3.2% of the total prison population in Indonesia. Over the past decades, the rate of juvenile delinquency in Indonesia has escalated to almost twice the rate of misconduct performed by adults. This rate is also predicted to be persistent, which is a tremendous concern for law enforcement (Davies & Robson, 2016).

A study conducted in 11 correctional institutions in Australia found that one in every three or 33% of adolescent offenders admitted that crime was their ‘way of

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life.’ In addition, there is a strong positive correlation between the frequency of previous incarceration and the probability of describing crime as a way of life. Lastly, the earlier a young offender’s criminal career starts, the more likely it is to be identified as a way of life (Payne & Roffey, 2020). Another longitudinal study in the United States also found that a notable fraction of individuals continue engaging in criminal behaviour into their mid-20s (Brame et al., 2018). This shows that recidivism among juvenile offenders is a challenge that needs to be focused on. Therefore, a study about desistance is needed.

Desistance from crime typically denotes the cessation of engagement in criminal behaviour. The exploration of desistance from crime and overall offending has gained significant attention in criminological research in recent decades. Indeed, it is often considered the pinnacle of correctional research due to its crucial significance in comprehending and reducing criminal conduct (Serin et al., 2013). Uncovering the underlying reasons for desistance from crime can contribute to reforming current social control and crime prevention policies. In fact, understanding desistance is as important as understanding the development of a criminal career itself (Haggård et al., 2001).

However, the data from the literature review uncovered the knowledge gap in desistance among offenders. Most research highlighted the challenges and experiences of desistance (John, 2019; Rowe & Soppitt, 2014; Zahari et al., 2024), whereas the motivation of juvenile offenders for avoiding

crime has not been widely addressed. Information about offenders’ motivation to avoid crime is crucial since their motivation is one of the key factors of desistance (Gideon, 2010). In addition, most studies about desistance from crime have been conducted in the Western setting. However, western-based research may have limited applications for Asian policy and prevention (Yeung & Li, 2021). As such, research is necessary to explore the motivation that contributes to Indonesian juvenile offenders’ desire to avoid crime. Sharing knowledge from the Indonesian juvenile offenders’ point of view could enhance policymakers’ understanding of the desistance and uncover intervention that promotes this motivation.

This study is unique because it focuses on the motivational factors behind desistance among juvenile offenders in Indonesia, which has not been thoroughly examined. Meanwhile, most research has centred on Western offenders and the structural factors of desistance. This study aims to fill a critical gap by investigating the motivations for desistance in a non-Western context, providing insights that could influence policies and interventions tailored to Indonesia. By examining the perspectives of juvenile offenders themselves, this research moves beyond external observations. It seeks to understand how offenders in Indonesia perceive and plan their own pathways away from crime.

Juvenile offenders’ motivation needs to be followed with planned strategies to achieve successful reintegration. Panuccio et al. (2012) posited that motivation

comprises both a desire and a method for achieving a goal; mere desire alone is insufficient. Although prisoners may possess optimism and motivation regarding their desistance prior to release, their pre-release expectations are unlikely to persist without being bolstered by strategies to surmount the challenge (Villman, 2021). Therefore, in addition to exploring motivations, this study also aims to identify the strategies juvenile offenders in Indonesia plan to use to desist from crime. Unlike many studies focusing solely on desistance challenges, this research will delve into motivation and strategic planning, offering a comprehensive view of the desistance process. This approach will provide valuable insight into how juvenile offenders transition away from crime, revealing pathways that could guide more effective interventions.

Given the lack of comprehension regarding how juvenile offenders in Indonesia transition away from criminal activities, we contend that a qualitative approach to examining adolescent desistance is necessary. This study aims to (1) explore the motivations for desistance among juvenile offenders in Indonesia and (2) identify the strategies that juvenile offenders in Indonesia plan to use to desist from crime. To our knowledge, this is the first research focusing on desistance among juvenile offenders in Indonesia.

## **THE NARRATIVE-BASED THEORY**

The explanation of why juvenile offenders are motivated to desist may be explained

by the narrative-based theory (Maruna, 2001). Maruna (2001) found the narrative-based theory based on the research in the Liverpool Desistance Study. The focus was on understanding the role of changes in ex-offender identities in desistance. Two groups of offenders were analysed, one persisting and one desisting. Despite similar personality traits between the two groups, the key distinction emerged from their self-narratives obtained through qualitative research interviews. Active offenders exhibited a ‘condemnation script,’ perceiving life as bleak and hostile, feeling powerless against external circumstances, and harbouring resentment towards authority. In contrast, desisting ex-offenders developed a ‘redemption script,’ viewing themselves as essentially good individuals who faced challenges due to societal exclusion and disadvantage. This positive narrative rendered offending impossible and fostered optimism about their future.

Desisting ex-offenders believed they were victims of societal circumstances, having overcome a cycle of crime, addiction, and recidivism. Their redemption script empowered them to recognise their innate qualities and aspire to live a fulfilling life. This transformed perspective motivated them to help the next generation avoid similar paths, a concept Maruna (2001) termed ‘making good.’ The study also highlighted a high degree of generative concern among desisting ex-offenders, emphasising the rehabilitative effects of meaningful work, whether voluntary or vocational. This generativity, driven by inner motivations and

societal demands, manifested in a desire to give back to society through employment or volunteer work with depth and meaning. The narrative-based theory offers a compelling explanation for juvenile offenders' motivation to desist, highlighting the transformative power of adopting a 'redemption script' that reframes their self-identity and life trajectory towards positive social contribution and personal fulfilment.

### **Motivation to Desist**

According to previous studies, some factors enhance offenders' motivation to desist. In a study among 67 adults who had served a life sentence, a shift in identity is the biggest contributor to desistance. Offenders have discarded their past identity in favour of an alternative, prosocial identity and expressing a desire to "give back" (Liem & Richardson, 2014; O'sullivan et al., 2015). In addition, in a study involving a group of prisoners who were responsible for serious crimes, it was found that feelings of control also play a crucial part in enhancing motivation to desist. Offenders who feel they control their actions and behaviour are more likely to desist from crime than offenders who believe that criminal activities were due to external forces (Doekhie et al., 2017; Farrall & Shapland, 2022). Both studies are conducted among adult offenders, whereas in a study among juvenile offenders, the availability of adult role models is one of the predictors. When juvenile offenders feel more socially supported, adults can be a source that gives offenders a sense of purpose (Newson et al., 2024).

### **Strategies to Desist**

One of the strategies that offenders often mention as the way to desist is finding employment (Wooditch et al., 2014). Earning a living and coping with the earned income is viewed as a way to strive for control. Work creates necessary structures for life and delimited leisure time (Villman, 2021). Moreover, seeking help from supportive environments also becomes one of the strategies (Newson et al., 2024). Other than providing concrete support, offenders can benefit from the societal inclusion that this openness might create (Au & Wong, 2022; Villman, 2021). Offenders also often scale down their social lives to reduce the negative influence of the environment (Villman, 2021).

A study among Japanese young offenders also found that relational connections and a desire for integration are the key strategies to desist from crime. Offenders internalise their offences, meaning they view their actions as personal failings rather than blaming external factors like societal structures. This internalisation leads them to seek normality, which involves distancing themselves from the criminal justice system and overcoming the limitations imposed by their status as young offenders. Offenders want to reintegrate into society, free from the stigma of their past actions. Importantly, they rely on support from close relationships, such as family and friends, to help them navigate this desistance process. This contrasts with Scottish offenders, who tend to focus more on structural issues like employment or leisure opportunities



as factors influencing their desistance. In Japan, there is less consultation with young offenders, so they have a more self-determined approach, prioritising personal responsibility and relational support in their efforts to desistance (Barry, 2017).

## METHODS

This study involved six juvenile offenders in Indonesia who were detained at Jakarta Correctional Institution, Bandung Correctional Institution, and Tangerang Correctional Institution. The inclusion criteria are that juvenile offenders must be detained in Indonesian correctional institutions due to their crime between age 12 and 18 years, and they need to be able to communicate verbally. In phenomenology design, the researcher needs to ensure that recruited informants have experienced the phenomenon needed. Therefore, purposive sampling is suitable (O'Halloran et al., 2019). In addition, according to Heidegger, phenomenology research aims to produce rich contextual accounts of individuals' perspectives. Therefore, recruiting a small number of participants is useful as it allows individuals to express their emotions and

the role of these emotions in particular contexts (Gill, 2015). Hence, recruiting a small sample size was adopted to gain a detailed understanding of juvenile offenders' perspectives regarding desistance.

Due to prison regulations, the researcher could not freely choose which participant to be recruited. Prison staff use as gatekeepers for recruiting participants in prison studies has also been widely known (Abbott et al., 2018). Therefore, the researcher has discussed this with the staff of correctional institutions, and then they will recommend some of the juvenile offenders who were eligible for the study. The sampling procedure includes (1) selecting the criteria of the eligible participants, (2) obtaining the recommendation from the officers, (3) getting informed consent signed by the participant and officer, and (4) conducting the interview and observation. The detailed demographic background of the participants is stated in Table 1. Six participants recruited, in the end, were detained for school fights, stealing, planned murder, and sexual assault. There are also a variety of durations of imprisonment, ranging from eight months to two years.

Table 1  
*Participants' age and criminal activity*

Participants	Correctional institution	Age	Criminal activity	Duration in correctional institutions
Participant 1	Jakarta	17	Stealing	1.5 years
Participant 2	Jakarta	16	School fight	11 months
Participant 3	Tangerang	17	School fight	8 months
Participant 4	Tangerang	15	School fight	10 months
Participant 5	Bandung	18	Planned murder	2 years
Participant 6	Bandung	17	Sexual assault	10 months

### **Compliance with Ethical Standards**

Before starting the data collection, this study obtained ethical approval from the University of Malaya's Research Ethics Committee. The research proposal, including participant recruitment details, data collection techniques, and confidentiality protocols, was carefully reviewed to ensure compliance with ethical guidelines. The researcher also upholds some ethical standards when working with juvenile offenders by prioritising informed consent, confidentiality, and member checks to ensure the integrity of the research process. Informed consent is obtained from the juveniles and prison officers as their guardians. This process is adapted to be age-appropriate, using clear and simple language to ensure comprehension.

Confidentiality is rigorously maintained by anonymising data and securely storing all information to protect participants' identities and personal details from unauthorised access. Furthermore, member checks are employed to validate the accuracy and relevance of the findings, involving participants in reviewing and confirming their statements to ensure that their perspectives are accurately presented.

### **Protocol of Study**

In-depth semi-structured interviews were utilised as a method of the study to collect data. The study employed a phenomenological research design whereby the researchers explore the experiences of individual participants about a phenomenon being studied (Creswell, 2012). With

the qualitative research method and phenomenological design, the researcher can engage and observe the behavioural pattern and gain an in-depth exploration of juvenile offenders in correctional institutions (Rosenbaum, 2016; Xu & Storr, 2012).

Seidman's (2013) three-interview series was conducted to explore three different areas of participants' experience, including (a) understandings and past life with the phenomenon, (b) current life and experience with the phenomenon, and (c) interpretations and meaning-making. The semi-structured interviews were held for three sessions; each session consisted of 45 minutes for each person at the correctional institutions where each participant was detained. This approach was chosen because of the complex nature of the phenomena under investigation (e.g., the criminal background, experience of detainment, motivation, and strategies to desistance). Moreover, the researcher needs to carefully explore these complex experiences step by step. This requires taking the time to understand each part of the participant's story while building a strong relationship with them.

All the interviews were conducted in Indonesian, and the audio was recorded with the participants' permission. Before the data collection process, they were also asked to sign an informed consent form to approve data collection.

### **Data Analysis**

The data from the semi-structured interviews were systematically analysed using Interpretative Phenomenological Analysis

(IPA). IPA aimed to explore the thorough analysis of individual lived experience, the sense of this experience, and how they comprehend that experience (Smith, 2011). Due to the main elements of IPA that allow participants to “share their voice” as well as “make sense” of their experience, this design has become one of the most frequently implemented qualitative designs in psychology (Larkin & Thompson, 2011). For this reason, this study believes that IPA allows the researchers to understand better juvenile offenders’ motivation to stop offending.

Following the IPA, the analysis begins with familiarisation, where researchers do repeated readings. Initial coding follows, with researchers annotating meaningful phrases to capture explicit and implicit aspects of participants’ experiences. Themes are then generated by grouping related codes, and connections between themes are explored to develop a coherent interpretation. The analysis progresses towards identifying superordinate themes that encapsulate broader aspects of the phenomenon, and the final step involves defining, naming, and presenting these themes in a comprehensive research report (Smith, 2011). Lastly, several steps have been taken to ensure the data analysis’s trustworthiness. Initially, member checks with the juvenile offenders were conducted to check their understanding and whether the researcher had interpreted their words correctly. Subsequently, the researcher discussed interpretations with another independent scholar with counselling and psychology expertise.

## RESULTS

### Juvenile Offenders’ Motivation for Desistance

The analysis reveals a unanimous desire among juvenile offenders to avoid future criminal behaviour and further detainment. Five main themes emerged from the gathered data that describe why juvenile offenders do not want to commit a crime, which is (1) transformation in identity and hope, (2) having better self-control, (3) having a positive role model, (4) avoiding negative labelling, and (5) filial piety.

#### *Transformation in Identity and Hope*

Participant expresses transformation to positive behaviour during their detainment that has enabled them to shift in identity and hope for the future. For instance, some participants mentioned receiving academic and vocational education in the correctional institution. Gaining new skills and academic achievements allows juvenile offenders to construct alternative identities as learners and workers.

*Well, it is important, like when I am outside, I am not able to wake up early. In here, I can wake up and not feel sleepy; I just go straight to the shower. I just like to be a better person (Participant 4).*

*Now, I am smarter. Here, I became more disciplined and started school again. I read more, too; I like my changes. I used to think I would not be able to work better after I got out, but here it is different (Participant 1).*

### ***Having Better Self-control***

The participant realises that being in the correctional institution has transformed them into having better self-control. Previously, juvenile offenders liked to do physical attacks whenever they were angry, but not anymore. Juvenile offenders used to express their emotions in a grandeur manner, such as doing school fights and physical attacks. However, the correctional institution has created a system that will prolong the detainment duration when they misbehave during the detainment period. In the end, the juvenile offenders will comply and have better self-control.

*I also learned to be patient and was very impatient; I liked to beat people up when upset. While I am here, if I do that, I will be isolated; I can't go home.*  
(Participant 1)

### ***Having a Positive Role Model***

Juvenile offenders express increased hope after learning that other former offenders have successfully reintegrated into society as working individuals. This led them to believe that the positive path is possible. Previously, the participants had never had a role model with a similar background and a successful career. Their experience from the correctional institutions made them believe they could be better and would work hard for it. Besides observing former juvenile offenders, the participant observed the officers as positive role models. The staff members commit to their careers, inspiring young offenders to reconsider their choices.

*Before I was detained, people around me always said that school was unimportant; what did you want to be after school? You will not be successful either. However, here, the officers are nice, and they are going to school. I wanted to be like them, too.*  
(Participant 6)

### ***Avoiding Negative Labelling***

All participants experienced a transformation to positive behaviour, which made them feel more hopeful and, in the end, promoted the motivation to avoid crime. However, the motivation to avoid crime is also expressed as a part of compensating for the crime that they have done. Juvenile offenders stated that since they will be labelled as former offenders, they know that people may think they are untrustworthy. Therefore, they aim to be responsible and trusted in the future so society will no longer associate them with negative labelling.

*Now, people must be thinking of me as a bad kid because I am here in prison. I should not commit a crime again so that they will not think that way*  
(Participant 4).

### ***Filial Piety***

Juvenile offenders stated that being an offender has negatively affected their family's reputation. Therefore, they wanted to live a lawful life so their family would not be seen as unruly. During the detainment, juvenile offenders' parental relationships improved, and they realised how crime

impacted their family's reputation and well-being. They are deterred by the fear of bringing shame to their family, motivating them to avoid criminal behaviour.

*You know, the neighbours are talking about my family, saying that my mother failed to raise me. If I do the crime again, they will say more bad things about her. I don't want it to happen, and I don't want to do that anymore* (Participant 3).

### **Juvenile Offender's Strategies for Desistance**

Another aim of this study is to explore juvenile offenders' strategies to desist from criminal activities. Juvenile offenders have several plans to avoid criminal activities. Three main themes emerged regarding their plans, which are (1) having a job, (2) finding family support, and (3) avoiding delinquent peers.

#### ***Having a Job***

Juvenile offenders express their desire to work. Juvenile offenders believe that having a job often opens prospects for being productive individuals. This motivates juvenile offenders to distance themselves from criminal activities instead of focusing on building a positive future. Moreover, some juvenile offenders believe that having a stable job can be a proactive step towards reintegration into the family unit and repairing the family's reputation.

*I want to work and make my parents happy. I don't care whether I become a*

*taxi driver or package courier, as long as it's Halal. I will do it* (Participant 2).

*Going to the university that's my goal. I then wanted to work in a company. When you have a degree and work in a good company, you will not meet bad friends like that, right?* (Participant 3).

#### ***Finding Family Support***

The participants stated that finding family support is one way they could desist from crime. They believe that asking for forgiveness and spending time with their family is one effective way to avoid committing crimes. After the detainment, the participants realised that families serve as positive influences and that being with their family is beneficial for them to become better people.

*I want to wash my mother's feet, saying I completely regret it. Why do I make her suffer? I just want to stay at home and be with her. I know that if I just be with her and think about her, I will not think about doing another crime* (Participant 3).

#### ***Avoiding Delinquent Peers***

Another strategy highlighted by the participants is avoiding delinquent peers. The participants have talked about how interacting with delinquent peers can perpetuate a cycle of criminal behaviour. By avoiding such interactions, the participants seek to distance themselves from negative influences and surround themselves with individuals who may positively impact their

behaviour, such as their parents. Moreover, the participants also choose to disassociate from delinquent peers to align themselves to avoid pressures that may lead to criminal activities.

*There is no way I am going back to them. For them, doing crime is cool and will make you popular. However, now I know it's not cool; it's just making you miserable and making things harder to achieve in the future. I will never have them as my friends again (Participant 2).*

**DISCUSSION**

Five key themes emerged from the data to explain the motivations behind their desistance: (1) transformation in identity and renewed hope, (2) improved self-control, (3) the presence of positive role models, (4) a desire to avoid negative labelling, and (5) filial piety. Additionally, the study explores the strategies juvenile offenders plan to use to avoid criminal activities. Three main themes emerged from these strategies: (1)

securing employment, (2) seeking family support, and (3) distancing themselves from delinquent peers. Figure 1 shows the themes of the study and their relationships. Together, these findings provide valuable insights into the factors influencing desistance and the proactive steps juvenile offenders intend to take to avoid recidivism.

**Juvenile Offenders' Motivation for Desistance**

This study explores Indonesian juvenile offenders' motivation to desist from crime and the strategies they plan to implement once discharged. The participants express a strong desire to desist from criminal activities.

One of the motivations for desistance is the transformation in identity and hope. In the correctional institutions, Indonesian juvenile offenders received educational programs and vocational training that were not available to them in their previous environments. Added with support from the staff and teachers, juvenile offenders improved their academic

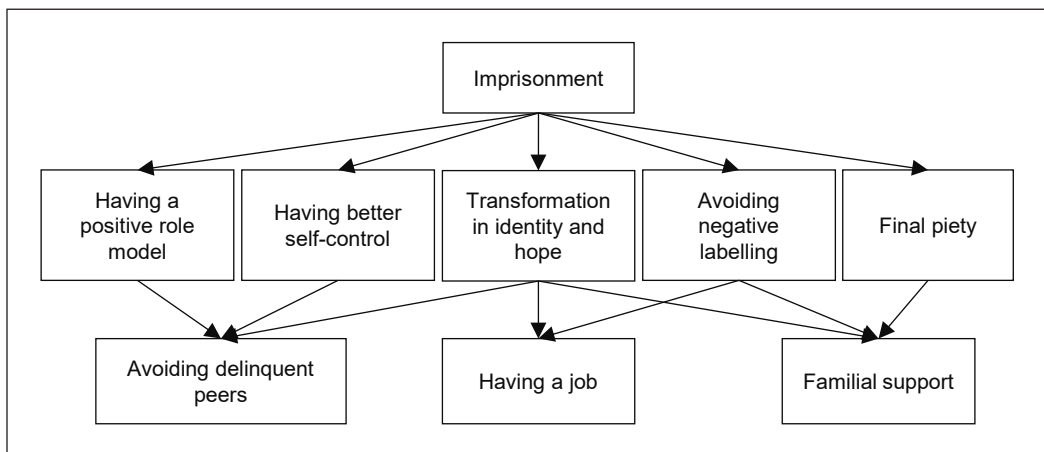


Figure 1. Relationship between motivations and strategies for desistance

achievements and vocational skills. This makes them feel empowered and hopeful for the future. This study is similar to a study among 50 male former prisoners in Ontario, Canada. Research revealed that offenders frequently experience stress related to the challenges of obtaining employment and housing. The prison environment can alleviate this stress by offering time and resources to foster a renewed sense of self (Maier & Ricciardelli, 2022).

Moreover, desistance involves discarding elements of the past and adopting clear scripts for a non-criminal future (Maruna & Roy, 2007). According to social identity theory, identity transformation happens when individuals are exposed to new relationships and opportunities. Ultimately, this process permits individuals to invest in themselves (Newson et al., 2024). Juvenile offenders provide new perspectives, opportunities, and a sense of competence when they have education and skill development. This positive transformation in identity may lead to increased motivation to desist from criminal behaviour as individuals see themselves in a new light, with the potential for a more prosocial and law-abiding future.

After being detained, juvenile offenders also improved their self-control. Juvenile offenders believe that their time in the correctional institution serves as a training ground, teaching them to refrain from easily expressing their emotions aggressively. The improvement in self-control occurs due to a lack of independence, retaliations, and pressures due to strict regulations (Meijers

et al., 2018). The more time adolescents spent in juvenile detention centres, the more hostile behaviours ensued (Van den Tillaart et al., 2018). Improving self-control also provides a sense of competence that, in the end, contributes to a shift in identity.

Juvenile offenders also have a positive role model from the staff, enhancing their confidence to thrive in society. This echoes similar findings that juvenile offenders who perceived the officers as legitimate and protective had less of a tendency to commit misconduct. Even when juvenile offenders observe misconduct in the correctional institution, reliable officers are an important buffer that helps juvenile offenders avoid misbehaviour (Brown et al., 2020). It explains what happens in correctional institutions in Indonesia; juvenile offenders perceive the staff as a positive figure that is fair and responsive whenever they reach out for help. Additionally, the staff members also serve as positive role models. A study found that the role models of adolescents were often family members or other adults with whom they had a personalised relationship. It shows that adolescents have a higher tendency to look up to adults they know and have frequent interactions with (Hurd et al., 2011). The need for positive role models has also been found in Malay adolescents to enhance their motivation when dealing with the inequality crisis and identity development (Hussain & Muhamad, 2022). Before detention, juvenile offenders lacked positive role models, often influenced by adults engaging in crime. However, within correctional institutions,

they find inspiration in staff members who have achieved the desired levels of status, motivating them to aspire towards similar achievements.

Juvenile offenders express motivation to avoid future crimes by acknowledging the need for compensation as they strive to counter the societal stigma associated with being labelled ex-offenders, working diligently to become responsible and trusted individuals to shed negative associations. The role of stigma in motivating desistance among young offenders has also been expressed in Japanese offenders. Offenders wanted to be free from the stigma of their past actions (Barry, 2017). Aside from personal responsibility, this belief makes sense due to moral compensation. Moral compensation means doing good things to compensate for an individual's mistake, helping them start fresh and improve (Sachdeva et al., 2009). First, immortality leads to guilt; second, psychological distress motivates moral compensatory behaviour (Ding et al., 2016). In the context of juvenile offenders, they feel guilty for the crime they committed, which leads them to do compensatory behaviour by working harder to be responsible and trusted. Juvenile offenders are also able to distance themselves from offenders' stigma, creating a more positive identity that helps them to desist from crime to avoid future crimes.

Juvenile offenders in Indonesia also developed the motivation to avoid crime due to filial piety. They believe that by avoiding crime, having high achievement in school, and doing productive work, they can repair the family's reputation. In Indonesia,

especially in Javanese culture, shame is the first step towards maturity. Shame is a significant motivator for Javanese individuals to conform to societal norms. The Javanese proverb "*mikul dhuwur, mendem jero*" embodies a prosocial significance, particularly emphasising the importance of respecting and upholding the dignity of parents, conveying a poignant message to children regarding their relationship with their parents (Budiarto et al., 2020). This finding is similar to the Confucian values often found in motivation to desist among offenders in Hong Kong. In cultural contexts like Hong Kong, the influence of Confucian values, which emphasise family loyalty and maintaining one's "face," reinforces the importance of family bonds. These cultural values help strengthen the offenders' motivation to desist from crime, as maintaining positive family ties can lead to social approval and redemption within their communities (Adorjan & Chui, 2014).

Moreover, since the parental relationship improves during imprisonment, a sense of appreciation and gratitude emerges, leading to the motivation to desist. A study in Malay society also found that it is common for children to care for their parents as a sign of repayment. When individuals were children, their parents took care of them. When they become adults, they remember and care for their parents (Nor & Ghazali, 2022). In the context of Indonesian juvenile offenders, desistance from crime and looking for family support is a sign of repayment as their parents have taken care of them during their vulnerable period of imprisonment.



Juvenile offenders in Indonesia are strongly motivated to desistance due to the cultural value of upholding their parents' dignity and repaying for their parents' kindness, viewing criminal behaviour as a failure that brings shame to their family, and experiencing moral compensation, which generates feelings of shame and guilt, ultimately driving their motivation to desist.

### **Juvenile Offenders' Strategies for Desistance**

Another aim of this study is to explore strategies for desistance among juvenile offenders in Indonesia. One of the strategies that juvenile offenders plan to implement is working. Even if they know that gaining employment can be challenging, juvenile offenders constantly search for jobs and expand their network through volunteers. Some also do not mind getting low compensation as long as it is not associated with crime. The findings echo the classic desistance theory, recounting the importance of having something to do and earning a living to achieve desistance from crime (Sampson & Laub, 2005; Uggen & Wakefield, 2008). The need to find employment is strong in juvenile offenders, and it often motivates them to continue their education and enhance their living skills inside the prison (Addae, 2020; Cuevas et al., 2017). Being employed keeps the offenders meaningfully engaged, builds their self-confidence, and supports the shift in identity (Chan & Boer, 2016; McMahan & Jump, 2018). This strategy is aligned with their motivation to desist from crime, which

is to support their identity transformation. Therefore, it makes sense that juvenile offenders plan to find employment once they are discharged. Moreover, getting a job also helps them to avoid negative labelling since they are driven by a desire to overcome the stigma of their criminal past and be viewed as responsible and trustworthy.

Adolescents encounter challenging developmental tasks, such as fitting into a peer group and advancing identity formation (Markova & Nikitskaya, 2017). Similarly, juvenile offenders in Indonesia conduct crimes to be accepted by their peers, and along the way, they believe that being a delinquent is part of their identity. Hence, to desist from crime, juvenile offenders planned to cut off contact with delinquent peers. When juvenile offenders are motivated to distance themselves from negative identities, supported with newfound self-control, they believe that cutting off from delinquent peers has often become a key step they should take.

Peers play a pivotal role in shaping criminal identity through sharing their experiences offers each other pertinent feedback on their identity decisions (Mercer et al., 2017). Peers who have criminal records can become risk factors for reoffending since they can be role models for delinquent acts. Reconnecting with these friends often leads to re-involvement in old activities such as drug addiction, theft, and robbery (Jasni et al., 2022). Therefore, distancing themselves from negative identities will help them move towards a more prosocial lifestyle (Copp et al., 2020; Cuevas et al., 2017).

Besides avoiding delinquent peers and finding employment, Indonesian juvenile offenders aim to reconnect with their families. During imprisonment, juvenile offenders' parents have become a source of strength by giving them compassion. This creates a feeling that they know someone is waiting for them outside and believes in them, provides them with an anchor and encourages them to choose a path of change and rehabilitation (Vignansky et al., 2018). Since individuals are often motivated to repay a kind action and punish an unkind action (Pelligra, 2011), it makes sense why juvenile offenders aim to reconnect with their families. Moreover, combined with the filial piety culture, juvenile offenders aim to repay it by spending more time with them.

The willingness to find family support also happens due to identity changes. The change in identity they experienced fuels the change in preferences. Juvenile offenders who wish to quit criminal lifestyles develop tastes for non-criminal actions and the newly perceived "comforts" of a non-delinquent routine. Hence, juvenile offenders started to think that a stable family is more important than their previous delinquent friendships. This strategy has also effectively reduced self-reported crime and identity changes since offenders spend more time with a supportive network (Copp et al., 2020).

## CONCLUSION

Desistance from crime plays a central role in understanding and addressing criminal behaviour. Information about offenders' motivation to avoid crime is crucial since

their motivation is one of the key factors of desistance. The study's results found that juvenile offenders in Indonesia were motivated to desistance due to transformation in identity and hope, having a positive role model, avoiding negative labelling, and filial piety. To support this motivation, juvenile offenders plan to find employment, cut off delinquent peers, and reconcile with their families. The study confirmed that a shift in identity is a key driver of desistance, influencing both motivation and strategies. This has important implications for narrative-based theory in desistance. Thus, professional interventions should focus on helping young delinquents adopt a prosocial identity through positive role models, avoiding negative labelling, and fostering parental bonding. However, this cross-sectional study involves six juvenile offenders in three Indonesian correctional institutions. Hence, the findings are not generalisable to all juvenile offenders. Therefore, geographically and culturally specific research is needed to understand juvenile offenders and create a suitable intervention thoroughly.

## Implications of the Study

In the past two decades, scholarly studies on desistance from crime have gained much attention. Nevertheless, a solid theoretical foundation across different cultural contexts has remained underdeveloped (John, 2019; Rowe & Soppitt, 2014; Zahari et al., 2024). The present study fills this research gap by undertaking a pioneer examination of the motivation to avoid crime and the strategies

among Indonesian juvenile offenders. Such findings may provide important references for other Asian countries, contributing to the overall advancement of the desistance theory. The narrative-based theory, particularly Maruna's (2001) concept of the "redemption script," helps explain why juvenile offenders are motivated to desist by focusing on transforming their self-identity.

Moreover, this study found that filial piety adds an important cultural layer to Maruna's narrative-based theory of desistance by showing how identity transformation is not only driven by personal motivations but also influenced by deeply rooted cultural values. In the context of Indonesian juvenile offenders, filial piety is a powerful motivator for desistance among juvenile offenders.

The study confirmed previous conceptions that a shift in identity is one of the most influential agents of change and may affect the motivation and strategies of desistance. Hence, helping young delinquents to adopt a prosocial identity by having a positive role model is crucial. This can be achieved by integrating role models, mentors, and peer support groups to reinforce positive identities and encourage long-term desistance from crime. For instance, DC Central Kitchen's Culinary Job Training (CJT) program is designed to help formerly incarcerated individuals transition back into society by providing vocational training in culinary arts. This program is effective in helping offenders to abandon their old criminal lifestyles and construct new prosocial identities. Including staff who

have previously been incarcerated played a crucial role. Their shared experiences helped build trust, provided role models, and supported the offenders in navigating their desistance (Matthews et al., 2020). Therefore, correctional institutions in Indonesia could establish a mentorship program where former juvenile offenders successfully desisted from crime mentor current offenders. This peer-based approach could build trust and create a path for juveniles to envision a crime-free future.

Moreover, strengthening family bonds, particularly parental involvement, can profoundly affect desistance. Correctional institutions should provide programs that improve family communication and offer counselling sessions to improve relationships between juvenile offenders and their parents. To do this, correctional institutions may organise family counselling sessions to build emotional connections and resolve conflicts. Programs could also provide parenting training to help families better support the rehabilitation process.

Nevertheless, this study has several limitations. It is cross-sectional in design and involves six juvenile offenders in three correctional institutions in Indonesia. Thus, the findings are not generally applicable to all juvenile offenders. Expanding the sample size and including more diverse populations of juvenile offenders across various regions could yield more comprehensive insights and enhance the generalisability of the results. By building on these initial findings, future studies may deepen the understanding of the broader experiences

and needs of juvenile offenders, leading to various effective interventions. Moreover, longitudinal studies about this topic are needed to determine whether juvenile offenders conducted their plan of desistance. Understanding whether and how juvenile offenders implement their desistance plans can help design more effective prevention strategies to reduce recidivism. It allows for the early identification of individuals who may need additional support to achieve long-term desistance.

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## REFERENCES

- Abbott, P., DiGiacomo, M., Magin, P., & Hu, W. (2018). A scoping review of qualitative research methods used with people in prison. *International Journal of Qualitative Methods*, 17(1). <https://doi.org/10.1177/1609406918803824>
- Addae, D. (2020). Learning behind bars: Motivations and challenges of learners in a correctional facility in Ghana. *International Journal of Educational Research*, 104, Article 101650. <https://doi.org/10.1016/j.ijer.2020.101650>
- Adorjan, M., & Chui, W. H. (2014). Aging out of crime: Resettlement challenges facing male ex-prisoners in Hong Kong. *The Prison Journal*, 94(1), 97-117. <https://doi.org/10.1177/0032885513512095>
- Au, G. W. Y., & Wong, D. S. W. (2022). Desistance from crime among Chinese delinquents: The integrated effects of family bonding, prosocial models, and religious bonding. *International Journal of Environmental Research and Public Health*, 19(10), Article 5894. <https://doi.org/10.3390/ijerph19105894>
- Barry, M. (2017). Young offenders' views of desistance in Japan: A comparison with Scotland. In J. Liu, M. Travers, & L. Y. C. Chang (Eds.), *Comparative criminology in Asia: Springer series on Asian criminology and criminal justice research* (pp. 119-129). Springer. [https://doi.org/10.1007/978-3-319-54942-2\\_9](https://doi.org/10.1007/978-3-319-54942-2_9)
- Brame, R., Mulvey, E. P., Schubert, C. A., & Piquero, A. R. (2018). Recidivism in a sample of serious adolescent offenders. *Journal of Quantitative Criminology*, 34(1), 167-187. <https://doi.org/10.1007/s10940-016-9329-2>
- Brown, C., Fine, A., & Cauffman, E. (2020). Mitigate institutional violence among youth. *Psychol Public Policy Law*, 25(1), 38-45. <https://doi.org/10.1037/law0000191>
- Budiarto, Y., Adiyanti, M. G., Febriani, A., & Hastuti, R. (2020). Why know and have shame are important? The Indonesian adolescents' experience. *Open Journal for Psychological Research*, 4(1), 17-30. <https://doi.org/10.32591/coas.ojpr.0401.02017b>
- Chan, J. P. S., & Boer, D. P. (2016). Managing offenders: Establishing the impact of incarceration and what works in Singapore. *Safer Communities*, 15(1), 33-48. <https://doi.org/10.1108/SC-06-2015-0024>
- Copp, J. E., Giordano, P. C., Longmore, M. A., & Manning, W. D. (2020). Desistance from crime during the transition to adulthood: The influence of parents, peers, and shifts in identity. *Journal of*

- Research in Crime and Delinquency*, 57(3), 294-332. <https://doi.org/10.1177/0022427819878220>
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Pearson Education.
- Cuevas, C., Wolff, K. T., & Baglivio, M. T. (2017). Self-efficacy, aspirations, and residential placement outcomes: Why belief in a prosocial self matters. *Journal of Criminal Justice*, 52, 1-11. <https://doi.org/10.1016/j.jcrimjus.2017.06.006>
- Davies, S. G., & Robson, J. (2016). Juvenile (in) justice: Children in conflict with the law in Indonesia. *Asia Pacific Journal on Human Rights and the Law*, 17(1), 119-147. <https://doi.org/10.1163/15718158-01701009>
- Ding, W., Xie, R., Sun, B., Li, W., Wang, D., & Zhen, R. (2016). Why does the “sinner” act prosocially? The mediating role of guilt and the moderating role of moral identity in motivating moral cleansing. *Frontiers in Psychology*, 7, Article 1317. <https://doi.org/10.3389/fpsyg.2016.01317>
- Doekhie, J., Dirkzwager, A., & Nieuwbeerta, P. (2017). Early attempts at desistance from crime: Prisoners’ pre-release expectations and their postrelease criminal behavior. *Journal of Offender Rehabilitation*, 56(7), 473-493. <https://doi.org/10.1080/10509674.2017.1359223>
- Farrall, S., & Shapland, J. (2022). Do the reasons why people desist from crime vary by age, length of offending career or lifestyle factors? *Howard Journal of Crime and Justice*, 61(4), 519-539. <https://doi.org/10.1111/hojo.12494>
- Gideon, L. (2010). Drug offenders’ perceptions of motivation: The role of motivation in rehabilitation and reintegration. *International Journal of Offender Therapy and Comparative Criminology*, 54(4), 597-610.
- Gill, M. (2015). A phenomenology of feeling: Examining the experience of emotion in organizations. In C. E. J. Hartel, W. J. Zerbe, & N. M. Ashkanasy (Eds.), *Research on emotion in organizations: New ways of studying emotion in organizations* (pp. 29-50). Emerald Group Publishing Ltd. <https://doi.org/10.1108/S1746-979120150000011003>
- Haggård, U. A., Gumpert, C. H., & Grann, M. (2001). Against all odds: A qualitative follow-up study of high-risk violent offenders who were not reconvicted. *Journal of Interpersonal Violence*, 16(10), 1048-1065. <https://doi.org/10.1177/088626001016010005>
- Hurd, N. M., Zimmerman, M. A., & Reischl, T. M. (2011). Role model behavior and youth violence: A study of positive and negative effects. *Journal of Early Adolescence*, 31(2), 323-354. <https://doi.org/10.1177/0272431610363160>
- Hussain, R. B. M., & Muhamad, H. (2022). ketaksamaan: Kesan ke atas pembentukan identiti remaja Bandar [Challenges of inequality: Effects on urban youth identity formationKemelut]. *Pertanika Journal of Social Sciences & Humanities*, 30(1), 121-138. <https://doi.org/10.47836/pjssh.30.1.07>
- Jasni, M. A., Abu Bakar Ah, S. H., Omar, N., & Nasir, N. C. M. (2022). Desistance and recidivism among former prisoners in Malaysia: A proposed model according to the age-graded theory. *Pertanika Journal of Social Sciences and Humanities*, 30(2), 517-540. <https://doi.org/10.47836/pjssh.30.2.06>
- John, T. K. (2019). An unpaid debt to society: How “punishment debt” affects reintegration and desistance from crime in Norway. *British Journal of Criminology*, 59(6), 1478-1497. <https://doi.org/10.1093/bjc/azz024>
- Larkin, M., & Thompson, A. R. (2011). Interpretative phenomenological analysis. In A. Thompson & D. Harper (Eds.), *Qualitative research methods in mental health and psychotherapy: A guide for students and practitioners* (pp. 99-

- 116). John Wiley & Sons, Oxford. <https://doi.org/10.1002/9781119973249>
- Liem, M., & Richardson, N. J. (2014). The role of transformation narratives in desistance among released lifers. *Criminal Justice and Behavior, 41*(6), 692-712. <https://doi.org/10.1177/0093854813515445>
- Maier, K., & Ricciardelli, R. (2022). "Prison didn't change me, I have changed": Narratives of change, self, and prison time. *Criminology and Criminal Justice, 22*(5), 774-789. <https://doi.org/10.1177/1748895821103133>
- Markova, S., & Nikitskaya, E. (2017). Coping strategies of adolescents with deviant behaviour. *International Journal of Adolescence and Youth, 22*(1), 36-46. <https://doi.org/10.1080/02673843.2013.868363>
- Maruna, S. (2001). *Making good: How ex-convicts reform and rebuild their lives*. American Psychological Association. <https://doi.org/10.1037/10430-000>
- Maruna, S., & Roy, K. (2007). Amputation or reconstruction? Notes on the concept of "knifing off" and desistance from crime. *Journal of Contemporary Criminal Justice, 23*(1), 104-124. <https://doi.org/10.1177/1043986206298951>
- Matthews, E., Bowman, R., Whitbread, G., & Johnson, R. (2020). DC Central Kitchen: Peer mentoring, structure and self-empowerment play a critical role in desistance. *Journal of Offender Rehabilitation, 59*(1), 22-43. <https://doi.org/10.1080/10509674.2019.1670319>
- McMahon, G., & Jump, D. (2018). Starting to stop: Young offenders' desistance from crime. *Youth Justice, 18*(1), 3-17. <https://doi.org/10.1177/1473225417741223>
- Meijers, J., Harte, J. M., Meynen, G., Cuijpers, P., & Scherder, E. J. A. (2018). Reduced self-control after 3 months of imprisonment; A pilot study. *Frontiers in Psychology, 9*, Article 69. <https://doi.org/10.3389/fpsyg.2018.00069>
- Mercer, N., Crocetti, E., Branje, S., van Lier, P., & Meeus, W. (2017). Linking delinquency and personal identity formation across adolescence: Examining between- and within-person associations. *Developmental Psychology, 53*(11), 2182-2194. <https://doi.org/10.1037/dev0000351>
- Newson, M., Peitz, L., Gitsham, H., Imada, H., & Abrams, D. (2024). 'We need community': Bridging the path to desistance from crime with community football. *Journal of Community and Applied Social Psychology, 34*(1), 1-18. <https://doi.org/10.1002/casp.2757>
- Nor, N. N. F. M., & Ghazali, S. (2022). Supporting the elderly: The "Kenang Budi" concept within the Malay society in Malaysia. *Pertanika Journal of Social Sciences & Humanities, 30*(4), 1881-1893. <https://doi.org/10.47836/pjssh.30.4.21>
- O'Halloran, L., Littlewood, M., Richardson, D., Tod, D., & Nesti, M. (2019). Doing descriptive phenomenological data collection in sport psychology research. *Research Methodologies for Sport Scholarship, 21*(2), 124-135. <https://doi.org/10.4324/9780429487521-9>
- O'Sullivan, K., Kemp, R., & Bright, D. (2015). Identity, self-story and desistance from crime. *Journal of Forensic Practice, 17*(3), 219-230. <https://doi.org/10.1108/JFP-03-2015-0020>
- Panuccio, E. A., Christian, J., Martinez, D. J., & Sullivan, M. L. (2012). Social support, motivation, and the process of juvenile reentry: An exploratory analysis of desistance. *Journal of Offender Rehabilitation, 51*(3), 135-160. <https://doi.org/10.1080/10509674.2011.618527>
- Payne, J. L., & Roffey, N. (2020). Youth crime as a 'way of life'? Prevalence and criminal career correlates among a sample of juvenile detainees in Australia. *Australian & New Zealand Journal of Criminology, 53*(4), 460-476. <https://doi.org/10.1177/0004865820960193>
- Pelligra, V. (2011). Empathy, guilt-aversion, and patterns of reciprocity. *Journal of Neuroscience, 31*(1), 1-11. <https://doi.org/10.1523/JNEUROSCI.4511-10.2011>

- Psychology, and Economics*, 4(3), 161-173. <https://doi.org/10.1037/a0024688>
- Rosenbaum, L. A. (2016). *A qualitative investigation of juvenile offenders* [Doctoral dissertation, Texas A&M University]. College of Education and Human Development Theses and Dissertations. <http://hdl.handle.net/1969.6/624>
- Rowe, M., & Soppitt, S. (2014). 'Who you gonna call?' The role of trust and relationships in desistance from crime. *Probation Journal*, 61(4), 397-412. <https://doi.org/10.1177/0264550514548252>
- Sachdeva, S., Iliev, R., & Medin, D. L. (2009). Sinning saints and saintly sinners: The paradox of moral self-regulation: Research article. *Psychological Science*, 20(4), 523-528. <https://doi.org/10.1111/j.1467-9280.2009.02326.x>
- Sampson, R. J., & Laub, J. H. (2005). Seductions of method: rejoinder to Nagin and Tremblay's "developmental trajectory groups: Fact or fiction?" *Criminology: An Interdisciplinary Journal*, 43(4), 905-913. <https://doi.org/10.1111/j.1745-9125.2005.00027.x>
- Seidman, I. (2013). *Interviewing as qualitative research: A guide for researchers in education and the social sciences* (4th ed.). Teachers College Press.
- Serin, R. C., Lloyd, C. D., Lloyd, L. D., & Shturman, M. (2013). What and who might enhance offender compliance: Situating responsibilities. In P. Ugwudike & P. Raynor (Eds.), *What works in offender compliance* (pp. 90-106). Palgrave Macmillan. [https://doi.org/10.1057/9781137019523\\_6](https://doi.org/10.1057/9781137019523_6)
- Smith, J. A. (2011). Evaluating the contribution of interpretative phenomenological analysis. *Health Psychology Review*, 5(1), 9-27. <https://doi.org/10.1080/17437199.2010.510659>
- Uggen, C., & Wakefield, S. (2008). What have we learned from longitudinal studies of work and crime. In A. M. Liberman (Ed.), *The long view of crime: A synthesis of longitudinal research* (pp. 191-219). Springer. [https://doi.org/10.1007/978-0-387-71165-2\\_6](https://doi.org/10.1007/978-0-387-71165-2_6)
- Van den Tillaart, J., Eltink, E., Stams, G.-J., Van der Helm, P., & Wissink, I. (2018). Aggressive incidents in residential youth care. *International Journal of Offender Therapy and Comparative Criminology*, 62(13), 3991-4007. <https://doi.org/10.1177/0306624X18758898>
- Vignansky, E., Addad, M., & Himi, H. (2018). Despair will hold you prisoner, hope will set you free: Hope and meaning among released prisoners. *Prison Journal*, 98(3), 334-358. <https://doi.org/10.1177/0032885518764920>
- Villman, E. (2021). Work, support and solitude: Prisoners' desistance expectations and self-regulating strategies. *Journal of Offender Rehabilitation*, 60(2), 95-116. <https://doi.org/10.1080/10509674.2020.1863299>
- Wooditch, A., Tang, L. L., & Taxman, F. S. (2014). Which criminogenic need changes are most important in promoting desistance from crime and substance use? *Criminal Justice and Behavior*, 41(3), 276-299. <https://doi.org/10.1177/0093854813503543>
- Xu, M. A., & Storr, G. B. (2012). Learning the concept of researcher as instrument in qualitative research. *Qualitative Report*, 17(21), 1-18. <https://doi.org/10.46743/2160-3715/2012.1768>
- Yeung, W.-J. J., & Li, H. (2021). Educational resilience among Asian children in challenging family environment. *Social Indicators Research*, 153, 675-685. <https://doi.org/10.1007/s11205-019-02143-7>
- Zahari, A. I., Zakaria, N. B., Hanafiah, M. H., & Ramli, L. E. (2024). Challenges to reintegration: A case study of violent extremist detainees and their reintegration into Malaysian society. *Safer Communities*, 23(1), 1-22. <https://doi.org/10.1108/SC-09-2022-0038>





## **Unveiling Biases in Indonesia's Online Media: Analyzing Sexual Violence Reporting in the Modern Era Through a Feminist Lens**

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### **ABSTRACT**

This paper reveals the imbalance of Indonesia's online media in reporting sexual violence. Content analysis showed a high number of violent events reported (119 news reports over three months), a tendency to favor authorities' perspectives over victims/perpetrators, and motives oriented towards exploitation and warnings. Critical discourse analysis further unveiled subtle discursive strategies perpetuating systemic gender oppression: naturalized masculine presuppositions framing violence as deviations from a male norm; gendered nomination strategies depersonalizing women through roles like "girl"/"mother"; deflecting agency away from victims by prioritizing institutional voices; and intersectional marginalization compounding gender-based subjugations through intersections with class/ethnicity/geography. These findings significantly demonstrate continuing gender biases and patriarchal ideologies in sexual violence reporting across five major online media platforms in post-democratization Indonesia, despite their national reach and influence. The multi-modal analysis integrating content and discourse techniques provides empirical validation for feminist theoretical critiques while offering nuanced understandings to catalyze more equitable and victim-centered journalistic practices.

*Keywords:* Feminism, inequality, new normal, online media reporting, sexual violence

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### **INTRODUCTION**

Incidents of sexual violence have been reported disproportionately by Indonesia's online media in the new normal era (Schwark, 2017). The imbalance of news coverage can be seen from two dimensions. First, the media tends to highlight the side of the victim with diction and exploitative sentences that

bring out the reader's sexual imagination through depictions of pornographic systems (Van der Pas & Aaldering, 2020). Readers have their meanings for sexual violence events based on their reading through the media (Harmer & Lewis, 2022). Second, reporting on sexual violence carried out by online media prioritizes cases that occur as the main topic and does not consider the social context (Aroustamian, 2020; S. Yusuf et al., 2020). This phenomenon is formally juridical, not following the journalistic code of ethics, which requires the media to uphold the principles of accuracy, balance, and good faith in protecting the identity of victims of sexual violence (Fairbairn, 2020). Based on these facts, it can be understood that the phenomenon of media imbalance in presenting news about sexual violence will also shape public attitudes toward sexual violence events.

Previous studies of the imbalance of reporting on the issue of sexual violence have tended to emphasize two things. First, studies look at the media in reporting cases using a single method, which includes content analysis, framing analysis, and critical discourse analysis (Powell & Henry, 2014; Risdaneva, 2018; I. A. Yusuf, 2023). Mardorossian's (2002) study focuses on how culturally radical feminist views see women as victims of violence. Women's news is still represented as the object of discriminatory news. Women often report incidents of sexual violence as helpless and cornered victims. Second, several studies focus only on one particular case as the object of research (Novianty & Burhanudin,

2020; Sahan & Witarti, 2021). It is also the case that the media has unilaterally committed victim blaming, which will either directly or indirectly harm the victim (Fairbairn, 2020). Based on the fact of the literature, which in its study is still limited to using a single approach, a study is needed that can see the events of sexual violence not only from the side of the news but also using a feminist approach in presenting news.

Within this context, analysis of online news media in the Indonesian setting is particularly compelling. Despite being the world's fourth most populous nation, public discussions around sexuality and gender-based violence remain stigmatized and understudied topics within this predominantly Muslim, socially conservative society. At the same time, the internet has catalyzed the rise of citizen journalism and alternative media, challenging the state-regulated mainstream press and opening counter-discursive spaces beyond elite ideological control (Lim, 2017). This study, therefore, represents a timely intervention unveiling how discursive constructions across Indonesia's mainstream online news platforms may covertly shore up and normalize - or conversely resist - dominant gender ideologies and power structures surrounding sexual violence reporting.

This research aims to complement previous studies that tend to see the reporting of sexual violence in the media based on monodisciplinary and with little attention to aspects of media partiality that tend to harm the victim. The alignments intended in this study are related to the intensity of

the news, the point of view of the subject of the news, and the motives behind the news. Meanwhile, sexual violence is understood as an act or attack committed on a person's physical or psychological mental integrity. This sexual violence usually occurs due to biased gender assumptions and societal inequality of power (Guarnieri & Tur-Prats, 2023; Rennison, 2014). Incidents regarding sexual violence in society have been openly informed to the public through the media (Gjika & Marganski, 2020). Unfortunately, not all media convey the event objective based on the principle of balance in accordance with the journalistic code of ethics. This study is built on the argument that media balance in reporting sexual violence cases is essential in the context of upholding human rights by the 1945 Law. In line with this, the role of the media becomes important in protecting the public from discriminatory treatment and upholding justice. Therefore, sexual violence is part of a gross violation of human rights because it has deprived victims of their rights as dignified citizens.

## LITERATURE REVIEW

### Sexual Violence in Media

Studies on media and sexual violence have been conducted by several researchers from different points of view (Abd. Rasyid, 2022; Baker et al., 2020; Morrison et al., 2021; Widiyaningrum & Wahid, 2021). Abd. Rasyid (2022) stated that rape is the dominant theme revealed by the media in North Maluku, indicating how certain forms of violence are foregrounded over others.

Meanwhile, Morrison et al. (2021) revealed that the media in Canada tends to dehumanize and stigmatize in framing the experiences of sexual violence against LGBTQ victims, reflecting a positioning that undermines and marginalizes this group.

In recent years, an influential body of work has examined such discursive constructions through critical lenses, such as feminist critical discourse analysis (Lazar, 2005, 2007). Studies have examined linguistic patterns depicting agency/patience roles (Ehrlich, 2001) and representations of genders/identities (Risdanaeva, 2018). This feminist theorizing on discursive power and mediated representations has inspired contextual examinations across varied sociocultural settings (Hutami & Sjaifirah, 2019). This multidisciplinary scholarship reaffirms the urgency of sustained feminist critique in unveiling subtle yet insidious discursive encodings of patriarchal oppression across evolving media landscapes.

On the other hand, Loney-Howes et al. (2021) assert that digital media is a channel to spread and perpetuate incidents of sexual violence in India. Furthermore, Widiyaningrum and Wahid (2021) looked at how the media reveals sexual violence from the point of view of discourse analysis. Thus, it can be understood that the position of the media is not only a channel for disseminating the phenomenon of sexual violence but also a tool in the process of stigmatization and dehumanization of victims of violence based on the media's point of view.

## **Media Construction in Gender Reporting**

Askanius and Hartley (2019) found that there were four different news frames in the reporting of the #metoo sexual assault movement in Denmark and Sweden, constituting diverse subject positions. In addition, differences in construction in the reporting of gender-based violence also occur in the world of sports (Marín-Montín & Bianchi, 2022). The study found that gender violence against female referees was the most common type of aggression, pointing to how certain narratives are privileged over others. Furthermore, gender reporting in the political world was revealed by Van der Pas and Aaldering (2020) in their study of 2,500 politicians.

The study explains that female politicians' representation centered more on their appearance, personal lives, negative behaviors, traits, and stereotypes - a positioning that trivializes their professional competency (Rohrbach et al., 2023). The media's significant role in raising women's issues and gender equality in Nigeria is that it pays attention to women's issues and gender equality. However, the intensity of reporting on these two issues will be more helpful if done regularly (Omonua et al., 2023). These studies provide an understanding that women and gender issues, on the one hand, are attractive themes for the media. On the other hand, the media has the authority to construct news that follows the goals achieved by positioning social actors and framing issues through particular ideological viewpoints.

## **Gender Representations in Media**

It has been a subject of extensive research, particularly in relation to the portrayal of sexual violence and the construction of gender narratives. Many studies have highlighted the prevalence of traditional gender stereotypes and the objectification of women in media content (Furnham & Paltzer, 2010). The media's perpetuation of hegemonic masculinity norms, which often link masculinity with aggression and dominance, has also been criticized for reinforcing attitudes that contribute to violence against women (Alexander, 2003; Rubio-Hernández, 2010).

Researchers have analyzed how media representations of gender roles and power dynamics can influence societal perceptions and attitudes toward sexual violence (Cuklanz & Moorti, 2006). For instance, victim-blaming narratives and the sexualization of victims in media coverage have been found to reinforce myths and misconceptions about sexual violence (Elmore et al., 2021). Conversely, media that challenges traditional gender norms and provides more balanced representations of both genders has been associated with greater awareness and empathy towards victims of sexual violence (Stankiewicz & Rosselli, 2008).

Furthermore, studies have explored the intersections of gender representations with other social categories, such as race, class, and sexuality, and how these intersecting identities shape media narratives and public perceptions (Byerly & Ross, 2006). Overall, the literature highlights the influential role

of media in constructing and reinforcing gender ideologies, underscoring the need for more nuanced and inclusive representations that challenge harmful stereotypes and promote gender equality (R. L. Collins, 2011).

### Critical Discourse Analysis

Through various subtle linguistic strategies, the CDA revealed deep-seated operations of phallogocentric ideology across the different online media sources, illuminating how language functions as a “medium of domination and social force” (Wodak, 1997, p. 5). These discursive mechanisms exemplify what feminist scholars identify as the “unmarked normativity” of masculinity that naturalizes male perspectives as the neutral, universal standpoint (Lazar, 2007). Presuppositions and naturalized beliefs, such as:

- A man with the initials S (29) in Cengkareng, West Jakarta, was arrested by the police. S was arrested on suspicion of rape of his 10-year-old nephew (Noviansah, 2022, para. 1).
- ... F was kidnapped and raped until she became pregnant by a man with the initials W (41) (Azhari & Carina, 2020, para. 8).

Such statements reinforce the “gender symbolic order” (Gal, 1991, p. 176) by presupposing a masculine default and framing violence against women as an aberration from this implied male norm, echoing a “patriarchal universe of discourse” (Lazar, 2005, p. 6).

Meanwhile, gendered nominations/representations are as follows:

- A high school student in Buru Regency, Maluku, was raped by two of her friends who were also high school students (Aco, 2020, para. 1).
- ... TT explained that at around 05.30 WITA, Tuesday (27/11/2020), the husband returned home drunk. When he arrived home, he was sleeping. Suddenly, she was beaten for no reason by her husband (Ninu, 2020, para. 6–7).
- “... the Counselling Guidance (BK) teacher had the heart to abuse his own student with the initials S..” (Puji, 2020, para. 2).

This overwrought gender-indexing enacts and references feminine roles like “girl” and “mother” to depersonalize and define women through patriarchal lenses.

As for perspectives and agency inscriptions:

- Sexual violence at universities is related to the power relationship between female students and thesis or research supervisors (Farisa & Meiliana, 2020, para. 19).
- Police investigated a woman who was raped by 10 men (*Perempuan diperkosa 10 pria*, 2020, para. 1).
- The Deputy Chief of Police explained that sexual harassment occurred (Putra, 2020, para. 3).

By prioritizing institutional male voices while backgrounding victims' perspectives, such examples demonstrate how news

discourse is “imbued with masculine institutional power” (Lazar, 2005, p. 1), reinforcing hegemonic masculine authority.

Intersectional marginalization can be found at:

- This informal job makes them vulnerable to violence and discrimination, ranging from low wages to sexual violence (Ritonga, 2020, para. 3).
- A 14-year-old child in Bima City, West Nusa Tenggara (NTB), was raped (Nickyrawi, 2020, para. 1).

Compounding subjugations through intersections of gender with class, ethnicity, and geography perpetuate “interlocking systems of oppression” (P. H. Collins, 1990, p. 221) that further marginalize vulnerable social groups.

The above examples across these major online news sources reveal how purportedly “objective” journalistic reporting is permeated by insidious “gender ideological repertoires” (Galasiński, 2004, p. 95) that discursively preserve and naturalize patriarchal power structures around sexual violence. Through unexamined presuppositions, representations diminishing female personhood, privileging of masculine voices, and compounded intersectional marginalization, the media language covertly sustains systemic “gender symbolic violence” (Bourdieu, 2001, p. 2) despite operating in a democratized national context.

## METHOD

This study employed a mixed-methods approach, integrating quantitative content

analysis with qualitative critical discourse analysis (CDA). This methodological synergy addressed the complex nature of sexual violence reporting in media, capturing macro-level patterns and micro-level discursive nuances. The combination of quantitative and qualitative methods allowed for both breadth and depth in analyzing sexual violence reporting. Content analysis provides a broad overview of reporting patterns, while CDA enables a deeper exploration of underlying ideologies and power structures. This triangulation enhanced the study’s validity by providing multiple perspectives on the same phenomenon.

The triangulated approach aligned with feminist commitments to capturing multidimensionality and intersectional power relations while privileging marginalized voices and experiential realities. The data comprised all online news reports covering incidents of sexual violence against women published between October–December 2020 across five major Indonesian online news platforms: Detik.com, Tribunnews.com, Kompas.com, Liputan6.com and Sindonews.com. These were purposively sampled as the most popular and nationally representative digital outlets spanning diverse ownership models (state media, commercial press, citizen journalism). Using the search terms “*kekerasan seksual*” (“sexual violence”), “*pemeriksaan*” (“rape”), and “*pelecehan seksual*” (“sexual harassment”), a total of 133 articles were retrieved through the platforms’ internal search functions. After data cleaning for duplicates and irrelevant items, the final corpus consisted of 119 reports.

This study was also guided by feminist theoretical frameworks viewing sexual violence not as isolated incidents but as systemic manifestations of patriarchal gender regimes subjugating feminine sexualities and corporeality (Hunnicut, 2009). It engages feminist poststructuralist concepts around the discursive construction of gendered power relations and subject positions through institutional discourses like news media (Weedon, 1997). Feminist critical discourse analysis (FCDA) principles are attuned to unveiling covert operations of gender ideology in text and/or conversations for an analytical approach (Lazar, 2005). The rationale for Critical Discourse Analysis (CDA), with its focus on the relationship between language, power, and ideology, aligns closely with the study's feminist theoretical framework. It allows for a nuanced exploration of how gender ideologies are embedded in news reporting, which purely quantitative methods might miss.

The CDA examined discursive strategies in constituting subject positions around victims, perpetrators, and gender roles, analyzing linguistic features that aligned with or contested dominant ideological framings (Benwell & Stokoe, 2006; Van Dijk, 2001). The quantitative content data was analyzed descriptively, while the qualitative CDA scrutinized language invoking particular subject positions that legitimized or resisted sexual violence through a feminist poststructuralist lens (Mardorossian, 2002; Sivakumaran, 2005). The critical discourse analysis was guided by feminist critical discourse analysis (FCDA) principles,

which advocate analyzing how power and ideology operate through discourse to sustain gendered social arrangements (Lazar, 2005). Specific FCDA analytical techniques like examining presuppositions, agency/patient constructions, and representations of gendered activities were employed (Lazar, 2007). By integrating content and discourse analyses, the study aimed to uncover patterns in representations as well as underlying ideological underpinnings shaping how Indonesian online media frame sexual violence.

A mixed-methods multi-modal discourse analysis combining quantitative content analysis and qualitative critical techniques was employed. The study employed two main procedures: content analysis and critical discourse analysis. For the content analysis, a quantitative approach was followed, using a codebook that captured variables such as the type of violence, representation of voices (victims, perpetrators, authorities), stated motives for reporting, and references to gender ideologies and rape myths. Content analysis is appropriate for systematically categorizing and quantifying large amounts of textual data (Krippendorff, 2004). It allows for identifying patterns in reporting frequency, focus, and framing across multiple news outlets. The quantitative nature of this method enables comparisons between different media sources and types of sexual violence reported, facilitating the examination of manifest content (Neuendorf & Kumar, 2016). Each report was coded accordingly based on these variables,

following an iterative process (Riffe et al., 2019). By integrating content and discourse analyses, the study aimed to uncover patterns in representations as well as underlying ideological underpinnings shaping how Indonesian online media frame sexual violence.

The critical discourse analysis (CDA) protocol was adapted from Lazar's (2007) framework, focusing on linguistic realizations, discursive strategies, and ideological effects. The analysis examined presuppositions and gendered beliefs, the construction of gendered subjects through nomination and representation strategies, and the inscription and resistance of gendered power relations. Intersemiotic references were also analyzed, particularly those that intersected gender marginalizations with other identity categories like class and ethnicity. The analysis involved a cyclical process of micro-level text analysis and wider socio-historical explanatory critiques (Van Dijk, 2001).

The study employed various strategies recommended for qualitative feminist inquiry to ensure trustworthiness, including analytical memos, researcher positionality notes, and peer debriefing with an expert in critical discourse analysis and positionality statements were maintained throughout the research process (Braun & Clarke, 2019); peer debriefing by conducting regular discussions with colleagues not involved in the study helped challenge assumptions and refine interpretations (Enworo, 2023); negative case analysis by looking into instances that appeared to

contradict emerging patterns were actively sought and analyzed (Lassig, 2022). Thick descriptions through detailed contextual information and illustrative quotes supported interpretations (Susen, 2024). The study employed strategies recommended for qualitative feminist inquiry, including analytical memos, researcher positionality notes, and peer debriefing with an expert in critical discourse analysis. Findings were triangulated across different data types and analyst perspectives. This mixed-methods design, grounded in feminist epistemologies and supported by rigorous procedures for reliability and trustworthiness, offers an empirically robust and theoretically rich examination of power and ideology in the discourse surrounding sexual violence against women in Indonesian online news.

## RESULT AND DISCUSSION

The study on the imbalance of reporting on sexual violence by online media found three essential points. First, the issue of sexual violence has received unequal attention from five online media during the first quarter of 2022. This inequality is shown by the results of studies that reveal significant differences in the amount of news between media. Second, the media carries out the imbalance of reporting, favoring one party who is the object of news, namely victims, perpetrators of violence, and officials or government. Third, the motive for reporting on sexual violence tends to exploit and warn rather than defense and education. These findings directly address the study's key objectives of (1) unveiling the subtle discursive strategies



and ideological framings perpetuating systemic gender-based oppression and (2) examining how intersecting identity vectors intersect with gender to further marginalize victims' voices and realities.

### **Intensity of Sexual Violence Reporting *Frequency and Distribution of Reports***

Our analysis revealed a high volume of sexual violence reports across the five major Indonesian online news platforms, with 119 articles published over three months. This frequency indicates that sexual violence remains a pressing issue in Indonesian society, echoing findings from previous studies on the prevalence of gender-based violence in the country (Komnas Perempuan, 2021). Our initial analysis revealed significant variations in sexual violence reporting intensity across five Indonesian online media platforms. This distribution pattern reflects differing editorial priorities in covering these sensitive issues. Table 1 is the detailed distribution of coverage across these media outlets.

As shown in Table 1, there is a significant disparity in the coverage across different media outlets. Tribunews.com allocated

the most space to these issues (33%), while Detik.com and Tempo.co provided comparatively less coverage (16% and 14%, respectively).

This study found that during three months of the recovery process after the COVID-19 pandemic (new normal), the reporting of sexual violence events in five online media reached a relatively high number, an average of 40 news a month. This phenomenon was revealed from the findings of a study where digital search results using the keyword "sexual violence" obtained data from 119 news reports distributed into nine forms of sexual violence based on the Law on Sexual Violence Criminal Acts (TPKS) in 2022. The content analysis revealed patterns aligning with feminist critiques of media representations. Across the 119 reports, victims were directly quoted in only 27% of cases, while authorities like police/government officials received substantially more voice representation (63%). Rape (43%) and sexual harassment (32%) were the most commonly reported types, while other forms like forced marriage (5%), sexual exploitation (7%), and forced contraception (3%) received relatively limited coverage (Table 2).

Data shows that tribunews.com allocates the most newsroom to sexual violence issues (33%). In contrast, detik.com and tempo.co respectively provide little space to uncover events of sexual violence in society (16% and 14%). The attention of these two media in quantity is far below the reporting done by tribunews.com. The other two online media, Kompas.com and

Table 1  
*Distribution of sexual violence news in online media*

No	Media	Total	%
1	Tribunews.com	39	33
2	Kompas.com	23	19
3	Cnnindonesia.com	22	18
4	Tempo.co	19	16
5	Detik.com	16	14
<b>Total</b>		<b>119</b>	<b>100</b>

Cnnindonesia.com, put their reporters in a moderate position towards the issue of sexual violence with a percentage below 20%. Incidents of sexual violence tend to be seen as a regular phenomenon that occurs in social life. This shows that both media place events of gender injustice have not been influential in the news (Das, 2021). These facts revealed that online media as a channel for delivering information to the public had not had a balanced concern regarding sexual violence events in the community. While these quantitative indicators shed light on overtly problematic representational trends, the qualitative critical discourse analysis enabled a richer interrogation of the covert discursive maneuvers perpetuating systemic gender oppression.

This uneven distribution of coverage suggests varying editorial priorities regarding sexual violence reporting. The dominance of certain outlets in covering these issues may lead to inconsistent public awareness, depending on readers' media preferences. This finding aligns with research by Easteal et al. (2019), which found that media attention to social issues can significantly impact public perception and policy priorities. The high frequency of reporting by Tribunnews.com, in particular, warrants further investigation into the factors driving this editorial focus and its potential impact on public discourse.

Our critical discourse analysis also revealed that the reporting frequency often correlated with sensationalist language and headlines. For instance, Tribunnews.com, which had the highest coverage

(33%), frequently used emotionally charged language in their headlines, such as: "Brutal Rape Shocks Quiet Neighborhood" and "Serial Predator Strikes Again: Community in Fear." This sensationalist approach, while potentially increasing readership, may inadvertently trivialize the serious nature of sexual violence and contribute to a culture of fear rather than understanding.

### *Types of Sexual Violence Covered*

Our content analysis, as presented in Table 2, demonstrates a narrow framing of sexual violence in media reporting. Rape (43%) and sexual harassment (32%) dominate the coverage, while other forms such as forced marriage (5%) and sexual exploitation (7%) receive minimal attention. This disproportionate focus potentially skews public perception, overlooking the diverse manifestations of sexual violence. Our content analysis further unveiled a narrow frame in the coverage of various forms of sexual violence. These findings indicate the media's disproportionate focus on certain forms of violence while neglecting others. Table 2 below shows the distribution of coverage based on types of sexual violence.

The data reveals the predominance of rape (43%) and sexual harassment (32%) reporting, while other forms, such as forced marriage (5%) and sexual exploitation (7%), received minimal attention. It aligns with what Loney-Howes (2018) terms the "rape script" (p. 36) in media narratives. More concerning, certain forms of violence, such as forced contraception and forced marriage, received no coverage whatsoever. This

Table 2  
Forms of sexual violence in online media

No	Forms of Violence	Media					Total
		Tribun	Kompas	CNN	Tempo	Detik	
1.	Rape	13	4	8	4	9	<b>38</b>
2.	Sexual harassment	4	2	5	4	7	<b>22</b>
3.	Sexual torture	1	0	1	0	0	2
4.	Sexual exploitation	1	0	0	0	0	1
5.	Coercion of contraception	0	0	0	0	0	0
6.	Forced marriage	0	0	0	0	0	0
7.	Forced prostitution	0	0	1	0	0	1
8.	Sexual slavery	0	1	0	0	0	1
9.	Forced abortion	0	0	1	0	0	1
<b>Total</b>		<b>19</b>	<b>7</b>	<b>16</b>	<b>8</b>	<b>16</b>	<b>66</b>

imbalanced coverage pattern potentially influences public perception of the true spectrum of sexual violence.

Our CDA findings further illuminate this issue. When reporting on rape and sexual harassment, the media often employed vivid, detailed language: “The victim was violently assaulted in a dark alley....” and “The perpetrator groped the woman repeatedly in the crowded train....” In contrast, reports on less frequent forms of sexual violence, such as forced marriage, used more detached, bureaucratic language:

“Authorities report an increase in underage unions in rural areas.” This discrepancy in linguistic choices may contribute to the public’s perception of what constitutes “real” sexual violence, potentially delegitimizing less-reported forms of abuse.

Moreover, the limited coverage of issues like forced marriage and sexual exploitation may reflect broader societal blind spots, as noted by Rahiem (2021) in her study of child

marriages in Indonesia. The implications of this selective coverage are significant. By predominantly reporting on rape and sexual harassment, the media may inadvertently narrow the public’s conception of sexual violence, potentially leaving other forms underrecognized and under-addressed. This could influence public opinion and policymaking, leading to gaps in support services and legal protections for victims of less-reported forms of sexual violence. The lack of coverage on forms of violence like forced contraception and forced marriage, as evident in our data, is particularly concerning given Indonesia’s context. Rahiem (2021) highlights the prevalence of child marriage in certain regions of Indonesia, yet our findings suggest this issue receives little media attention.

Furthermore, our CDA revealed a tendency to use passive voice when describing less-reported forms of sexual violence, particularly in cases of forced marriage and sexual exploitation: “Young

girls were married off to older men....” and “Women were found to be exploited in the underground economy....” This linguistic choice removes the agency from the perpetrators and can obscure the violent nature of these acts. In contrast, reports on rape and sexual harassment more often used active voice, clearly identifying perpetrators: “The man attacked his victim in broad daylight....” These subtle linguistic differences can shape public perception of different forms of sexual violence, potentially influencing which issues receive more attention and resources in policymaking and support services.

In conclusion, while the high frequency of sexual violence reporting indicates media recognition of its societal importance, the uneven distribution across outlets and the narrow focus on certain types of violence reveal significant gaps in coverage. By incorporating these CDA findings, we provide a more nuanced understanding of how language choices in reporting can influence public perception and reinforce certain narratives about sexual violence. This deeper analysis strengthens the argument for

more comprehensive and thoughtful reporting practices. These patterns in reporting have important implications for public awareness, policy formation, and, ultimately, the fight against sexual violence in Indonesia.

### Discursive Strategies in Media Narratives

#### *Voice and Agency in Reporting*

Our analysis of voice representation reveals significant power dynamics in sexual violence reporting across Indonesian online media. Table 3 demonstrates the distribution of news objects across the five media outlets.

The data in Table 3 demonstrates a clear institutional dominance, with authorities (41%) commanding the narrative space while victims’ voices (32%) and perpetrators’ perspectives (27%) remain relatively marginalized. This pattern is particularly evident in Tribunnews.com, where 18 out of 39 reports prioritized official voices compared to 13 victim accounts. This finding supports feminist critiques of mainstream media’s tendency to prioritize institutional narratives over survivors’ experiences (Easteal et al., 2019).

Table 3  
*The object of sexual violence news*

No	Media	Object		
		Victim	Perpetrators	Apparatus
1	Tribunnews.com	13	8	18
2	Kompas.com	8	3	12
3	Cnnindonesia.com	10	8	4
4	Tempo.co	2	6	11
5	Detik.com	5	7	4
<b>Total</b>		<b>38</b>	<b>32</b>	<b>49</b>
<b>Percentage</b>		<b>32</b>	<b>27</b>	<b>41</b>

This representational imbalance potentially produces biased narratives that fail to fully capture the complexity of sexual violence issues. The overrepresentation of authority figures in reporting can lead to what Gray et al. (2020) terms “institutional framing” (p. 201) of sexual violence, where the issue is predominantly viewed through the lens of law enforcement and governance rather than the lived experiences of survivors. The implications are significant for public understanding, as when institutional voices predominate, victims’ lived experiences become secondary to official interpretations.

Meanwhile, the underrepresentation of victims’ voices not only reinforces existing power structures but also potentially contributes to victim silencing and secondary victimization. As noted by Loney-Howes (2020), the absence of survivor voices in media narratives can perpetuate harmful myths about sexual violence and hinder public understanding of its complex realities. This imbalance may also discourage other victims from coming forward, fearing their stories will be overshadowed or misrepresented by institutional perspectives.

### ***Gendered Language and Representation***

Our critical discourse analysis uncovered gendered nomination strategies that consistently activate gendered identity categories before individual personhood. The analysis revealed how media discourse constructs victim identities through specific nomination patterns and linguistic choices. Common phrasings included “a 17-year-old

girl was raped” and “a married mother of three was assaulted,” demonstrating how victims are primarily identified through gendered roles rather than as individuals (Elmore et al., 2021, pp. 530, 534).

The Critical Discourse Analysis (CDA) revealed insidious operations of phallogocentric ideology through subtle linguistic strategies. The first strategy is presuppositions and naturalized beliefs. Reports frequently featured uninterrogated gendered presuppositions presenting sexual violence as deviations from an implied masculine norm, with descriptors like: “...the 25-year-old female victim was brutally assaulted...” and “...another case of violence against women has emerged....” This discursive framing positions masculine subjectivities as the invisible, naturalized anchor point against which violence towards the feminine is treated as aberrant departures requiring explicit demarcation.

The second strategy relates to gendered nominations/representations. Victim representation strategies consistently activated gendered identity categories before individual personhood. Common phrasings included: “...a 17-year-old girl was raped....” and “...a married mother of three was assaulted....” This linguistic pattern aligns with feminist poststructuralist concepts of how media discourse constructs and reinforces gendered power relations (Lazar & Kramarae, 2022). By prioritizing women’s roles (e.g., “girl,” “mother”) over their identities, these discursive strategies subtly perpetuate patriarchal ideologies.

Such gender representations can have significant implications. Firstly, they can contribute to the objectification of women, reducing them to their social roles rather than recognizing their full personhood. This supports Nussbaum's (1995) theory of objectification, where individuals are treated as mere instruments or denied autonomy. Secondly, these representations can reinforce stereotypical gender roles and expectations. The frequent use of terms like "girl" or "mother" in the context of sexual violence reporting may inadvertently perpetuate notions of female vulnerability or traditional familial roles, potentially obscuring the broader societal and structural factors contributing to sexual violence.

This gender nomination can intersect with other forms of marginalization. Our analysis revealed instances where class, ethnicity, or geographic location were mentioned alongside gendered terms, compounding the othering effect. For example: "The impoverished migrant worker from East Java was sexually exploited...." This intersectional marginalization strengthens Crenshaw's theory of intersectionality, demonstrating how multiple axes of oppression can interact in media representations of sexual violence (Paik, 2017).

The discursive strategies employed in media narratives of sexual violence in Indonesian online media reveal persistent gender biases and power imbalances. The privileging of institutional voices over those of survivors, coupled with gendered nomination strategies, serves to

reinforce existing patriarchal structures and potentially hinder comprehensive public understanding of sexual violence. These findings underscore the need for more victim-centered, gender-sensitive approaches in media reporting of sexual violence.

### **Intersectional Power Dynamics**

The analysis revealed complex intersections of power dynamics where gender marginalization intertwined with class and geographical locations in Indonesian online media reporting. The discourse analysis identified patterns where victims' socioeconomic status and geographic origins were prominently highlighted, particularly in cases from rural or economically disadvantaged regions. For instance, headlines like "The impoverished migrant worker from East Java was sexually exploited" and "The underage girl from a rural village in West Nusa Tenggara was raped" demonstrated how media discourse compounds gender-based marginalization with class and geographic markers (Harmer & Lewis, 2022, pp. 3–5, 8–11)

Cultural status representations emerged through linguistic choices that positioned victims within specific sociocultural contexts, such as "lower-caste Balinese minority victim" and "victim was a nightclub hostess." These representations align with what Guarnieri and Tur-Prats (2023) identify as cultural distance patterns in violence reporting, where multiple identity vectors create unique experiences of marginalization. The findings from five

major Indonesian news platforms showed that such intersectional marginalization not only reflected but actively reinforced existing social hierarchies, particularly affecting women from minority communities and lower socioeconomic backgrounds in post-democratization Indonesia. The analysis demonstrates how Indonesian media's coverage of sexual violence cases often perpetuates multiple patterns of marginalization where gender, class, and cultural identities create compounded vulnerabilities in representation.

### **Ideological Underpinnings in Media Discourse**

#### ***Naturalization of Masculine Norms***

Our critical discourse analysis revealed the pervasive naturalization of masculine norms in sexual violence reporting. Phrases like “another case of violence against women has emerged” implicitly frame male perspectives as the neutral, universal standpoint. This finding corroborates Lazar's concept of the “unmarked normativity” of masculinity in media discourse, demonstrating how seemingly objective reporting can covertly sustain systemic gender oppression (Lazar, 2007, p. 148). This naturalization of masculine norms manifests in several ways. Firstly, the language used often positions sexual violence as a deviation from a presumed male norm rather than as a systemic issue rooted in gender inequality. For instance, statements like “the perpetrator's actions shocked the community” implicitly suggest that such violence is anomalous rather than

a manifestation of broader societal issues.

Secondly, the media's framing often reinforces traditional notions of masculinity and femininity. Our analysis found that reports frequently described male perpetrators in terms of their strength or aggression, while female victims were characterized by their vulnerability or innocence. This emphasizes Connell's (2015) concept of hegemonic masculinity, where certain masculine traits are privileged and normalized. The implications of this naturalization are significant. By presenting masculine perspectives as the default, media discourse may inadvertently perpetuate the very power structures that enable sexual violence. As Hlavka (2014) argues, such normalization can lead to the internalization of harmful gender norms, potentially influencing public perception and individual behavior.

#### ***Intersectional Marginalization***

Our analysis also revealed instances of intersectional marginalization, where gender-based subjugation intersected with other identity factors such as class, ethnicity, and geography. Descriptions like “impoverished rural woman” compound vulnerabilities, aligning with P. H. Collins' (2002, p. 221) theorization of interlocking systems of oppression. This intersectional approach to reporting was evident in phrases such as: “The underage girl from a rural village in West Nusa Tenggara was raped...” (Wyndham-West, 2021, p. 5). Such representations not only gender the victim but also situate her within

specific socioeconomic and geographic contexts. While this additional information can provide important context, it can inadvertently reinforce stereotypes and compound marginalization.

The implications of this intersectional marginalization in media discourse are multifaceted. Firstly, it can lead to what Crenshaw (1991) terms “representational intersectionality” (p. 1283), where the media’s portrayal of marginalized groups can itself become a source of disempowerment. For instance, consistently associating sexual violence with poverty or rural areas may stigmatize certain communities while obscuring the prevalence of such violence in other contexts. Secondly, this intersectional framing can influence public policy and resource allocation. If media consistently portrays sexual violence as primarily affecting certain demographic groups, it may lead to targeted interventions that, while well-intentioned, fail to address the broader societal issues at play.

Moreover, the intersectional nature of these representations highlights the complex ways various forms of oppression interact in Indonesian society. As Yuval-Davis (2006) argues, these intersections are not simply additive but create unique experiences of marginalization that require nuanced understanding and response. The naturalization of masculine norms and the intersectional marginalization evident in media reporting not only reflect societal biases but also have the potential to perpetuate them. These findings underscore the need for more critical,

reflexive approaches to media reporting on sexual violence, ones that challenge rather than reinforce existing power dynamics and recognize the complex, intersectional nature of oppression. Therefore, ideological underpinnings revealed in our analysis of media discourse on sexual violence in Indonesia demonstrate the subtle yet powerful ways in which language can reinforce existing power structures.

## **Implications for Media Practice and Social Change**

### *Journalistic Ethics and Responsibility*

Our findings highlight significant ethical challenges in the reporting of sexual violence cases in Indonesian online media. The imbalance in voice representation (Table 3), with authorities dominating narratives (63%) over victims (27%), raises important questions about journalistic responsibility. This trend aligns with Fairbairn’s (2020) observations on the ethical implications of media representation in sexual violence cases. As revealed in our analysis, the prevalence of gendered nomination strategies and the naturalization of masculine norms in reporting underscore the need for increased gender sensitivity in journalism. These practices, while often subtle, can perpetuate harmful stereotypes and contribute to victim-blaming narratives. As Carll (2003) argues, such framing can have profound effects on public perception and policy responses to sexual violence.

There is an urgent need to address these issues for reform in journalistic practices and education. Media organizations should



prioritize training programs that enhance journalists' understanding of gender issues and the complexities of sexual violence. This aligns with recommendations by Eastal et al. (2019), who advocate for trauma-informed reporting practices. Our critical discourse analysis further illuminates these ethical challenges. For instance, we found recurring patterns of language that subtly reinforce victim-blaming narratives, such as: "The young woman was walking alone late at night when the incident occurred" and "The victim had been drinking at a party before the assault" (Matthews, 2024, p. 37). While seemingly factual, such phrasings can implicitly shift responsibility onto the victim. This aligns with Carll's (2003) argument about the profound effects of media framing on public perception.

The final dimension analyzed was the motives behind sexual violence reporting. Our findings revealed concerning trends in coverage objectives. The following Table 4 reveals the distribution of reporting motives across the five media outlets.

The data in Table 4 indicates that warning motives dominate (36.1%), followed by

exploitation (21%), while educational motives account for only 13.5% of reports. This emphasis on warning and exploitation over education represents missed public awareness and empowerment opportunities. The high percentage of exploitative reporting (21%) raises particular ethical concerns, potentially re-traumatizing victims and trivializing the issue of sexual violence. The development and implementation of ethical guidelines specifically tailored to report on sexual violence could significantly improve the quality and sensitivity of coverage. Such guidelines should emphasize the importance of victim-centered approaches, balanced representation, and the avoidance of sensationalism.

### *Media's Role in Shaping Public Discourse*

Such overwrought gender-indexing portrays women as unindividuated subjects defined through patriarchal lenses, prioritizing conventional feminine roles like virginal "girls" or married "mothers." This implicit denial of autonomous personhood aligns with feminist critiques of how phallogentric

Table 4  
*Motives for reporting sexual violence*

No	Media	Motive				
		Defense	Exploitation	Judgment	Commemoration	Education
1	Tribunnews.com	4	4	6	20	5
2	Kompas.com	1	3	3	10	6
3	Cnnindonesia.com	3	9	6	4	0
4	Tempo.co	3	2	3	6	5
5	Detik.com	1	7	5	3	0
<b>Total</b>		<b>12</b>	<b>25</b>	<b>23</b>	<b>43</b>	<b>16</b>
<b>Percentage</b>		<b>10.1</b>	<b>21</b>	<b>19.3</b>	<b>36.1</b>	<b>13.5</b>

discourses function. Firstly, Perspective and Agency Inscriptions. The CDA further revealed systematic patterns invalidating feminine subjectivities while reinforcing hegemonic masculine institutional authority: “According to the police statement, the 14-year-old victim had been drinking with friends before being assaulted.” Another example: “Investigators confirmed the woman had engaged in prostitution regularly, but still did not deserve to be raped.”

The victim perspective is relayed indirectly through institutional filters, reducing women to passive objects lacking narrative agency over their own experiences. Conversely, institutional agents are framed as active authorizers defining reality and adjudicating boundaries of legitimacy around violence (“still did not deserve”). These micro-linguistic strategies coalesced into overarching representational repertoires casting gender-based violence within narrow institutional/legalistic frameworks defined by masculine-coded authorities, hypersexualizing and depersonalizing feminine victims.

Secondly, Intersectional Subjugations. The analysis critically examined how intersections of gender with other identity vectors like class, ethnicity, and geography compounded subjugations and invisibilized further marginalized voices. Descriptors like: “impoverished rural woman,” “lower-caste Balinese minority victim,” and “the victim was a nightclub hostess.” These representations position victims at the crossroads of multiple interlocking oppressions through patriarchal ideological

framings around class, caste, profession and geographic signifiers intersecting with gender-based marginalization. This aligns with Black feminist theorizations of how intersecting power structures produce interlocking systems of domination, subjugating women occupying multiple matrix positionalities (P. H. Collins, 1990). These findings contribute crucial empirical understandings to feminist theoretical knowledge around systemic gender violence. They validate the imperative for journalists and institutions to urgently interrogate subtle linguistic biases and integrate feminist epistemological lenses attentive to intersectional power imbalances.

On the other hand, five forms of sexual violence, as identified in the regulation, receive less attention from online media, namely sexual torture, sexual exploitation, forced prostitution, sexual slavery, and forced abortion. These five issues were only published as many as 1–2 news. At the same time, the five *online* media subjects in this study did not publish two issues of sexual violence: forced contraception and forced marriage (Table 2). Based on these data, there is an imbalance in reporting on the issue of sexual violence by the media. This inequality is marked by high coverage of rape and abuse cases on the one hand and neglect of cases of forced contraception and forced marriage. This phenomenon is inversely proportional to the social fact that Indonesia is a country that is prone to child marriage cases (Rahiem, 2021).

Our findings underscore the critical role of media in addressing sexual violence

in Indonesian society. By adopting more ethical, sensitive, and comprehensive reporting practices, including a shift towards educational motives, as highlighted in Table 4, media can contribute significantly to challenging harmful norms, raising awareness, and promoting effective responses to sexual violence. This requires a concerted effort from journalists, editors, media organizations, and journalism educators to reimagine the way sexual violence is portrayed and discussed in public discourse, with a particular focus on increasing educational content and reducing exploitative reporting.

## CONCLUSION

The most crucial finding in this study shows that the imbalance of reporting carried out by Indonesia's online media regarding sexual violence in the new normal period occurs in terms of intensity, object, and motive of news. The press writes news from the perspective of the authorities, despite having many interpretations, with the passing of the Sexual Violence Crime Law (TPKS Law) as an effort to encourage and support the government. Meanwhile, regarding news motives, the media does not fully perform its role as a balanced conveyor of information to the public from the high warning and exploitation motives. In contrast, educational and defense motives have not received adequate space. The study's examination of discursive patterns and ideological constructions perpetuating systemic gender oppression has significant implications for journalism practice and

education. It highlights the urgent need for mainstream media to reform institutionalized worldviews and frameworks that marginalize women's voices and experiences. Practicing journalists must critically analyze linguistic choices, voice allocations, and narrative positions to avoid perpetuating rape myths, victim-blaming scripts, and gender stereotypes. Integrating intersectional feminist consciousness into reporting is crucial for challenging hegemonic perspectives and amplifying multiple marginalized perspectives. Journalism education programs should restructure curricula to foster critical consciousness about the politics of representation, equipping students with a theoretical grounding in feminist epistemologies and an understanding of intersectional subjectivities. Scholars can explore evolving discursive terrains of sexual violence across media environments and conduct investigations into journalism production cultures to disrupt oppressive discursive regimes. Ultimately, the study reaffirms the need to reformulate epistemologies of violence and nurture critical consciousness to transform rape-conducive cultures.

This study has limitations on Indonesia's online media coverage, reporting period, and nine types of sexual violence used as parameters for reporting sexual violence. In addition, this study also did not conduct a diction per diction study in every news. The study of diction is needed to get a clear picture of the meaning in the news of each word chosen by the media. Further research is required to obtain more comprehensive

results. Given the pressing nature of the issues identified in this study, the most urgent recommendation is to prioritize the integration of gender approaches into media reporting processes. Media organizations in Indonesia should promptly implement training programs aimed at enhancing the gender sensitivity of ICT journalists.

### **Implications for Theory and Practice**

This study offers significant theoretical and practical contributions to understanding gender bias in media reporting. Feminist media studies extend existing theoretical frameworks by demonstrating how intersectional power dynamics operate within Indonesia's digital media landscape, particularly highlighting how gender-based marginalization intersects with class and geographical factors in news discourse (Harmer & Lewis, 2022).

The findings emphasize the urgent need for gender-sensitive reporting protocols in journalism practice. Media organizations should implement comprehensive training programs focusing on balanced voice representation and avoiding stereotypical gender framing. This includes developing guidelines for trauma-informed reporting and prioritizing victims' perspectives over institutional voices.

Regarding policy development, the study advocates for regulatory frameworks that promote ethical reporting of sexual violence cases. These should include mandates for balanced coverage across various forms of sexual violence and requirements for gender-sensitive language in news reporting.

Such policies could significantly influence how media organizations approach sexual violence coverage, potentially leading to more equitable and victim-centered reporting practices (Guarnieri & Tur-Prats, 2023).

### **Limitations and Recommendations for Future Research**

This study encountered several methodological limitations that future research should address. The analysis was constrained to text-based content analysis, excluding multi-modal elements such as images and reader interactions. Additionally, the three-month sampling period during post-pandemic recovery may not fully represent long-term reporting patterns in Indonesia's evolving media landscape. Geographical constraints include focusing solely on national-level online media, potentially overlooking regional reporting dynamics and local media perspectives. The study's limitation to Indonesian-language content may have missed nuances in English-language reporting targeting international audiences, particularly in covering sensitive cultural topics and gender issues within the Indonesian context.

Future studies should consider longitudinal analyses examining reporting patterns over extended periods, incorporate multimedia content analysis, and explore cross-cultural comparisons. Researchers might also investigate the impact of newsroom decision-making processes and journalist training. For practical implementation, we recommend developing standardized reporting

guidelines, establishing gender-sensitive editorial policies, and creating monitoring mechanisms to track improvements in sexual violence coverage. These recommendations aim to enhance the quality and sensitivity of sexual violence reporting while promoting more equitable media practices.

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## REFERENCES

- Abd. Rasyid, S. B. (2022). Discourse analysis of online news media on sexual violence in North Maluku. *Marwah: Jurnal Perempuan, Agama dan Jender*, 21(2), 44-62. <https://doi.org/10.24014/marwah.v21i2.17925>
- Aco, H. (2020, February 8). *Siswi SMA diperkosa teman prianya usai dicekoki miras, dua siswi lainnya malah merekam* [High school student raped by her male friend after being fed alcohol, two other students even recorded it]. *Tribunnews.com*. <https://www.tribunnews.com/regional/2020/02/18/siswi-sma-diperkosa-teman-prianya-usai-dicekoki-miras-dua-siswi-lainnya-malah-merekam>
- Alexander, S. M. (2003). Stylish hard bodies: Branded masculinity in men's health magazine. *Sociological Perspectives*, 46(4), 535-554. <https://doi.org/10.1525/sop.2003.46.4.535>
- Aroustamian, C. (2020). Time's up: Recognising sexual violence as a public policy issue: A qualitative content analysis of sexual violence cases and the media. *Aggression and Violent Behavior*, 50, Article 101341. <https://doi.org/10.1016/j.avb.2019.101341>
- Askanius, T., & Hartley, J. M. (2019). Framing gender justice: A comparative analysis of the media coverage of #metoo in Denmark and Sweden. *Nordicom Review*, 40(2), 19-36. <https://doi.org/10.2478/nor-2019-0022>
- Azhari, J. R., & Carina, J. (2020, August 24). *Remaja 14 tahun yang dibawa kabur dan diperkosa tetangga menolak bertemu orangtuanya* [A 14-year-old teenager who was taken away and raped by a neighbor refused to meet her parents]. *Kompas.com*. <https://megapolitan.kompas.com/read/2020/08/24/12314271/remaja-14-tahun-yang-dibawa-kabur-dan-diperkosa-tetangga-menolak-bertemu>
- Baker, A., Williams, K., & Rodrigues, U. M. (2020). #metoo 2.0 to #meNOMore: Analysing Western reporting about sexual violence in the music industry. *Journalism Practice*, 14(2), 191-207. <https://doi.org/10.1080/17512786.2019.1674683>
- Benwell, B., & Stokoe, E. (2006). *Discourse and identity*. Edinburgh University Press. <https://doi.org/10.1515/9780748626533>
- Bourdieu, P. (2001). *Masculine domination*. Stanford University Press.
- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 11(4), 589-597. <https://doi.org/10.1080/2159676X.2019.1628806>
- Byerly, C. M., & Ross, K. (2006). *Women and media* (L. R. Collins, Ed.). Wiley. <https://doi.org/10.1002/9780470774908>
- Carll, E. K. (2003). News portrayal of violence and women. *American Behavioral Scientist*, 46(12), 1601-1610. <https://doi.org/10.1177/0002764203254616>
- Collins, P. H. (1990). *Black feminist thought: Knowledge, consciousness and the politics of empowerment*. Routledge Taylor & Francis Group.

- Collins, P. H. (2002). *Black feminist thought*. Routledge. <https://doi.org/10.4324/9780203900055>
- Collins, R. L. (2011). Content analysis of gender roles in media: Where are we now and where should we go? *Sex Roles*, 64(3-4), 290-298. <https://doi.org/10.1007/s11199-010-9929-5>
- Connell, R. (2015). Masculinities: The field of knowledge. In S. Horlacher (Ed.), *Configuring masculinity in theory and literary practice* (pp. 39-51). BRILL. [https://doi.org/10.1163/9789004299009\\_004](https://doi.org/10.1163/9789004299009_004)
- Crenshaw, K. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review*, 43(6), 1241-1299. <https://doi.org/10.2307/1229039>
- Cuklanz, L. M., & Moorti, S. (2006). Television's "new" feminism: Prime-time representations of women and victimization. *Critical Studies in Media Communication*, 23(4), 302-321. <https://doi.org/10.1080/07393180600933121>
- Das, J. (2021). Gender equality for sustainable development: Analysis of local journalists' role in Bangladesh. *World of Media*, (3), 35-61. <https://doi.org/10.30547/worldofmedia.3.2021.2>
- Easteal, P., Holland, K., Breen, M. D., Vaughan, C., & Sutherland, G. (2019). Australian media messages: Critical discourse analysis of two intimate homicides involving domestic violence. *Violence Against Women*, 25(4), 441-462. <https://doi.org/10.1177/1077801218780364>
- Ehrlich, S. (2001). *Representing rape: Language and sexual consent*. Routledge.
- Elmore, K. C., Scull, T. M., Malik, C. V., & Kupersmidt, J. B. (2021). Rape myth acceptance reflects perceptions of media portrayals as similar to others, but not the self. *Violence Against Women*, 27(3-4), 529-551. <https://doi.org/10.1177/1077801220908335>
- Enworo, O. C. (2023). Application of Guba and Lincoln's parallel criteria to assess trustworthiness of qualitative research on indigenous social protection systems. *Qualitative Research Journal*, 23(4), 372-384. <https://doi.org/10.1108/QRJ-08-2022-0116>
- Fairbairn, J. (2020). Before #MeToo: Violence against women social media work, bystander intervention, and social change. *Societies*, 10(3), 51-72. <https://doi.org/10.3390/soc10030051>
- Farisa, F. C., & Meiliana, D. (2020, October 30). *Hambatan pencegahan kekerasan seksual di lembaga pendidikan: Pelaku lebih dilindungi* [Barriers to preventing sexual violence in educational institutions: Perpetrators are more protected]. Kompas. <https://nasional.kompas.com/read/2020/10/30/11564311/hambatan-pencegahan-kekerasan-seksual-di-lembaga-pendidikan-pelaku-lebih>
- Furnham, A., & Paltzer, S. (2010). The portrayal of men and women in television advertisements: An updated review of 30 studies published since 2000. *Scandinavian Journal of Psychology*, 51(3), 216-236. <https://doi.org/10.1111/j.1467-9450.2009.00772.x>
- Gal, S. (1991). Between speech and silence. In M. di Leonardo (Ed.), *Gender at the crossroads of knowledge* (pp. 175-203). University of California Press. <https://doi.org/10.1525/9780520910355-007>
- Galasiński, D. (2004). *Men and the language of emotions*. Palgrave Macmillan UK. <https://doi.org/10.1057/9780230510128>
- Gjika, A., & Marganski, A. J. (2020). Silent voices, hidden stories: A review of sexual assault (non) disclosure literature, emerging issues, and call to action. *International Journal for Crime, Justice and Social Democracy*, 9(1), 163-176. <https://doi.org/10.5204/IJCJSD.V9I1.1439>
- Gray, H., Stern, M., & Dolan, C. (2020). Torture and sexual violence in war and conflict: The

- unmaking and remaking of subjects of violence. *Review of International Studies*, 46(2), 197-216. <https://doi.org/10.1017/S0260210519000391>
- Guarnieri, E., & Tur-Prats, A. (2023). Cultural distance and conflict-related sexual violence. *The Quarterly Journal of Economics*, 138(3), 1817-1861. <https://doi.org/10.1093/qje/qjad015>
- Harmer, E., & Lewis, S. (2022). Disbelief and counter-voices: A thematic analysis of online reader comments about sexual harassment and sexual violence against women. *Information, Communication & Society*, 25(2), 199-216. <https://doi.org/10.1080/1369118X.2020.1770832>
- Hlavka, H. R. (2014). Normalizing sexual violence. *Gender & Society*, 28(3), 337-358. <https://doi.org/10.1177/0891243214526468>
- Hunnicut, G. (2009). Varieties of patriarchy and violence against women. *Violence Against Women*, 15(5), 553-573. <https://doi.org/10.1177/1077801208331246>
- Hutami, M. F., & Sjafirah, N. A. (2019). Framing media online tribunews.com terhadap sosok perempuan dalam berita video pornografi Depok [Online media framing Tribunews.com female figure in Depok pornographic video news]. *Kajian Jurnalisme*, 2(1), 25-43. <https://doi.org/10.24198/kj.v2i1.21072>
- Komnas Perempuan. (2021, March 5). *Catatan Tahunan Komnas Perempuan Tahun 2020* [Women National Commission's Annual Report 2020] [Press release]. <https://komnasperempuan.go.id/siaran-pers-detail/catahu-2020-komnas-perempuan-lembar-fakta-dan-poin-kunci-5-maret-2021>
- Krippendorff, K. (2004). *Content analysis: An introduction to its methodology*. Sage.
- Lassig, C. (2022). Attributes of rigorous grounded theory research and reporting: Illustrations from a grounded theory of adolescent creativity. *Educational Researcher*, 51(2), 98-108. <https://doi.org/10.3102/0013189X211069571>
- Lazar, M. M. (2005). *Feminist critical discourse analysis: Gender, power and ideology in discourse*. Palgrave Macmillan UK. <https://doi.org/10.1057/9780230599901>
- Lazar, M. M. (2007). Feminist critical discourse analysis: Articulating a feminist discourse praxis I. *Critical Discourse Studies*, 4(2), 141-164. <https://doi.org/10.1080/17405900701464816>
- Lazar, M. M., & Kramarae, C. (2022). Gender and power in discourse. In J. P. Gee & M. Handford (Eds.), *The Routledge handbook of discourse analysis* (2nd ed., pp. 217-230). Routledge.
- Lim, M. (2017). Freedom to hate: Social media, algorithmic enclaves, and the rise of tribal nationalism in Indonesia. *Critical Asian Studies*, 49(3), 411-427. <https://doi.org/10.1080/14672715.2017.1341188>
- Loney-Howes, R. (2018). Shifting the rape script: "Coming Out" online as a rape victim. *Frontiers: A Journal of Women Studies*, 39(2), 26-57. <https://doi.org/10.5250/fronjwomestud.39.2.0026>
- Loney-Howes, R. (2020). Introduction: Keeping rape on the public agenda. In *Online anti-rape activism: Exploring the politics of the personal in the age of digital media* (pp. 1-15). Emerald Publishing Limited. <https://doi.org/10.1108/978-1-83867-439-720201001>
- Loney-Howes, R., Mendes, K., Fernández Romero, D., Fileborn, B., & Núñez Puente, S. (2021). Digital footprints of #MeToo. *Feminist Media Studies*, 22(6), 1345-1362. <https://doi.org/10.1080/14680777.2021.1886142>
- Mardorossian, C. M. (2002). Toward a new feminist theory of Rape. *Signs: Journal of Women in Culture and Society*, 27(3), 743-775. <https://doi.org/10.1086/337938>
- Marín-Montín, J., & Bianchi, P. (2022). "Go and wash up!": Gender violence in female refereeing

- and its media coverage in Brazil and Spain. *Communication and Sport*, 12(3), 465-490. <https://doi.org/10.1177/21674795221129197>
- Matthews, E. (2024). Do we blame victims? A critical analysis of victim blaming discourse found in defensive narratives of intimate partner femicide cases [Master's thesis, University of Gloucestershire]. University of Gloucestershire Research Repository. <https://eprints.glos.ac.uk/14721/>
- Morrison, M. A., Parker, K. M., Sadika, B., Sameen, D. E., & Morrison, T. G. (2021). 'Newsworthy enough?': Media framing of Canadian LGBTQ persons' sexual violence experiences. *Psychology and Sexuality*, 12(1-2), 96-114. <https://doi.org/10.1080/19419899.2020.1729845>
- Neuendorf, K. A., & Kumar, A. (2016). Content analysis. In G. Mazzoleni (Ed.), *The International Encyclopedia of Political Communication* (pp. 1-10). Wiley. <https://doi.org/10.1002/9781118541555.wbiepc065>
- Nickyrawi, F. (2020, December 7). *ABG perempuan diperkosa 4 temannya di Bima NTB, 1 pelaku ditangkap* [A girl raped by 4 friends in Bima NTB, 1 perpetrator arrested]. Detiknews. <https://news.detik.com/berita/d-5284713/abg-perempuan-diperkosa-4-temannya-di-bima-ntb-1-pelaku-ditangkap>
- Ninu, A. (2020, October 27). *Suami mabuk istri dihajar hingga terluka saat sedang tidur di kamar, ini terjadi di Kabupaten Sikka* [Drunken husband wife beaten to injury while sleeping in the room, this happened in Sikka Regency] (R. Woso, Ed.). Tribunnews.com. <https://kupang.tribunnews.com/2020/10/27/suami-mabuk-istri-dihajar-hingga-terluka-saat-sedang-tidur-di-kamar-ini-terjadi-di-kabupaten-sikka>
- Noviansah, W. (2022, March 30). *Bejat! Paman di jakbar perkosa keponakan hingga 5 kali dalam sebulan* [Depraved! Uncle in West Jakarta rapes niece up to 5 times a month]. Detiknews. <https://news.detik.com/berita/d-6008749/bejat-paman-di-jakbar-perkosa-keponakan-hingga-5-kali-dalam-sebulan>
- Novianty, F., & Burhanudin, A. M. (2020). Bias gender dalam berita "Kasus driver taksi online setubuhi mahasiswi asal Malang di dalam mobil" (Analisis wacana kritis Sara Mills) [Gender bias in the news "The case of an online taxi driver having sex with a female student from Malang in a car" (Sara Mills' critical discourse analysis)]. *ORASI: Jurnal Dakwah Dan Komunikasi*, 11(1), 71-86. <https://doi.org/10.24235/orasi.v11i1.6240>
- Nussbaum, M. C. (1995). Objectification. *Philosophy & Public Affairs*, 24(4), 249-291. <https://doi.org/10.1111/j.1088-4963.1995.tb00032.x>
- Omonua, L. A., Akpor, E. D., & Olley, W. O. (2023). Mass media coverage of women and gender inequality. *African Journal of Social Sciences and Humanities Research*, 6(4), 150-165. <https://doi.org/10.52589/ajsshr-fdl6snq3>
- Paik, L. (2017). Critical perspectives on intersectionality and criminology: Introduction. *Theoretical Criminology*, 21(1), 4-10. <https://doi.org/10.1177/1362480616677495>
- Perempuan diperkosa 10 pria di sebuah bengkel, polisi lakukan penyelidikan* [Woman raped by 10 men in a workshop, police conduct investigation]. (2020, October 20). Tribunnews.com. <https://wartakota.tribunnews.com/2020/10/20/perempuan-diperkosa-10-pria-di-sebuah-bengkel-polisi-lakukan-penyelidikan>
- Powell, A., & Henry, N. (2014). Framing sexual violence prevention. In *Preventing Sexual Violence* (pp. 1-21). Palgrave Macmillan UK. [https://doi.org/10.1057/9781137356192\\_1](https://doi.org/10.1057/9781137356192_1)
- Puji, S. (2020, September 1). *Guru BK cabuli siswi SMP di sekolah, polisi: Pengakuannya Khilaf* [Teacher sexually harrassed junior high school students at school, police: Khilaf's



- confession]. Kompas. <https://regional.kompas.com/read/2020/09/01/12533631/guru-bk-cabulis-siswi-smp-di-sekolah-polisi-pengakuannya-khilaf>
- Putra, I. G. A. B. A. (2020, October 19). *Pelecehan seksual berulang di Tangsel baru satu kasus terungkap* [Repeated sexual harassment in South Tangerang has only revealed one case]. Kompas. <https://www.kompas.id/baca/metro/2020/10/19/pelecehan-seksual-berulang-di-tangsel-baru-satu-kasus-terungkap>
- Rahiem, M. D. H. (2021). COVID-19 and the surge of child marriages: A phenomenon in Nusa Tenggara Barat, Indonesia. *Child Abuse & Neglect*, 118, Article 105168. <https://doi.org/10.1016/j.chiabu.2021.105168>
- Rennison, C. M. (2014). Feminist theory in the context of sexual violence. In G. Bruinsma & D. Weisburd (Eds.), *Encyclopedia of Criminology and Criminal Justice* (pp. 1617-1627). Springer. [https://doi.org/10.1007/978-1-4614-5690-2\\_70](https://doi.org/10.1007/978-1-4614-5690-2_70)
- Riffe, D., Lacy, S., Watson, B. R., & Fico, F. (2019). *Analyzing media messages*. Routledge. <https://doi.org/10.4324/9780429464287>
- Risdaneva, R. (2018). A critical discourse analysis of women's portrayal in news reporting of sexual violence. *Studies in English Language and Education*, 5(1), 126-136. <https://doi.org/10.24815/siele.v5i1.9433>
- Ritonga, M. W. (2020, November 25). *Perempuan pekerja migran Indonesia sangat rawan jadi korban kekerasan* [Indonesian migrant workers are very vulnerable to violence]. Kompas. <https://www.kompas.id/baca/nusantara/2020/11/25/perempuan-pekerja-migran-indonesia-sangat-rawan-jadi-korban-kekerasan>
- Rohrbach, T., Aaldering, L., & Van der Pas, D. J. (2023). Gender differences and similarities in news media effects on political candidate evaluations: A meta-analysis. *Journal of Communication*, 73(2), 101-112. <https://doi.org/10.1093/joc/jqac042>
- Rubio-Hernández, M. del M. (2010). The representations of men depicted in men's health magazine. *Comunicación: Revista Internacional De Comunicación Audiovisual, Publicidad y Estudios Culturales*, 1(8), 57-70.
- Sahan, M. Y., & Witarti, D. I. (2021). Representasi perempuan cantik di media feminis online Jurnal Perempuan dan Magdalene [Representation of beautiful women in online feminist media Jurnal Perempuan dan Magdalene]. *Avant Garde*, 9(2), 210-229. <https://doi.org/10.36080/ag.v9i2.1475>
- Schwark, S. (2017). Visual representations of sexual violence in online news outlets. *Frontiers in Psychology*, 8, 774-803. <https://doi.org/10.3389/fpsyg.2017.00774>
- Sivakumaran, S. (2005). Male/Male rape and the "taint" of homosexuality. *Human Rights Quarterly*, 27(4), 1274-1306. <https://doi.org/10.1353/hrq.2005.0053>
- Stankiewicz, J. M., & Rosselli, F. (2008). Women as sex objects and victims in print advertisements. *Sex Roles*, 58(7-8), 579-589. <https://doi.org/10.1007/s11199-007-9359-1>
- Susen, S. (2024). The interpretation of cultures: Geertz is still in town. *Sociologica*, 18(1), 25-63. <https://doi.org/10.6092/issn.1971-8853/18664>
- Van der Pas, D. J., & Aaldering, L. (2020). Gender differences in political media coverage: A meta-analysis. *Journal of Communication*, 70(1), 114-143. <https://doi.org/10.1093/joc/jqz046>
- Van Dijk, T. A. (2001). Critical discourse analysis. In D. Schiffrin, D. Tannen, & H. E. Hamilton (Eds.), *The handbook of discourse analysis* (pp. 352-371). Blackwell Publishing Inc.
- Weedon, C. (1997). *Feminist practice and poststructuralist theory*. Wiley-Blackwell.

- Widiyaningrum, W., & Wahid, U. (2021). Analisis wacana Sara Mills tentang kasus kekerasan seksual terhadap perempuan: Studi pemberitaan media Tribunnews.com dan Tirto.id [Sara Mills' discourse analysis on cases of sexual violence against women: A study of tribunnews.com and tirto.id media coverage]. *Gender Equality: International Journal of Child and Gender Studies*, 7(1), 14-32. <https://doi.org/10.22373/equality.v7i1.8743>
- Wodak, R. (1997). *Gender and discourse*. Sage Publications. <https://doi.org/10.4135/9781446250204>
- Wyndham-West, M. (2021). Gender and dementia national strategy policymaking: Working toward health equity in Canada through gender-based analysis plus. *Dementia*, 20(5), 1664-1687. <https://doi.org/10.1177/1471301220964621>
- Yusuf, I. A. (2023). Gender-sensitive reporting principles: A content analysis of violence against women and girls in Indonesian mainstream newspaper coverage. *Journalism Practice*, 17(1), 150-173. <https://doi.org/10.1080/17512786.2022.2037452>
- Yusuf, S., Idris, K., Samah, A. A., Ibrahim, A., Ramli, N. S., Ibrahim, M. S., & Rahman, N. A. A. (2020). Keyboard warrior, online predator or cyber bully? The growing menace of child exposure to internet harm based on research evidence. *Pertanika Journal of Social Sciences and Humanities*, 28(2), 1291-1309.
- Yuval-Davis, N. (2006). Intersectionality and feminist politics. *European Journal of Women's Studies*, 13(3), 193-209. <https://doi.org/10.1177/1350506806065752>

*Review Article*

## **Emerging Influential Factors in Malaysia's Halal Industry Development Ecosystem: A Story from Systematic Literature Review and Bibliometric Study**

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### **ABSTRACT**

This study aims to review and analyse key factors influencing the growth of Malaysia's halal industry by looking at research from 2019 to 2023 using Scopus data. The goal is to better understand the factors shaping the development of the halal industry in Malaysia. The study uses a Systematic Literature Review (SLR) and bibliometric analysis (BA) to carefully review current research. It follows the PRISMA Protocol, which involves steps like identifying, screening, and evaluating relevant studies. The findings highlight that (1) sustainability has been a major focus in halal industry research over the past five years; (2) in addition to sustainability, halal policy and halal brand management have been frequently studied; (3) research on halal policy covers topics like certification, standards, and supply chains, and; (4) halal brand management research focuses on stakeholder management, brand loyalty, brand positioning, and culture. This study contributes by summarising and organising key terms and factors that influence the development of Malaysia's halal industry. It suggests that future research should use methods from different fields to explore emerging topics. Finally, this review offers insights and recommendations for future research and industrial players by identifying factors that either connect or disconnect within the halal industry ecosystem.

*Keywords:* Bibliometric, Halal industry, systematic literature review, thematic study, VosViewer Online

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### **INTRODUCTION**

The halal industry has now ventured into other industries besides food and drink, including pharmaceuticals, cosmetics, tourism, and logistics. As the demand for

halal food items is constantly rising, the halal food business continues to expand. Over two billion Muslims worldwide consume halal foods, which are observed to have the highest standards of hygiene, which are paramount for maintaining good health and safety standards. Halal foods have also drawn non-Muslim consumers, as people of all faiths increasingly choose to follow halal standards and are becoming more concerned with the quality and safety of their food (Abdallah et al., 2021).

According to the State of the Global Islamic Economy Index, Malaysia has held the top spot in the global Halal food market for nine years (*State of the Global Islamic Economy*, 2022). All halal exports in 2022 were RM 59.46 billion, representing 7.4% of the country's gross domestic product (GDP). According to Bernama (2023), the Malaysian Halal Food Industry will increase to US\$ 113.2 billion (RM500.17 billion) by 2023 and contribute 8.1% to the country's GDP by 2025. As of 2021, there were about 200,000 businesses in the halal food industry.

According to Business Today (Harinderan, 2023), the Halal food industry received \$3.97 billion in investments between 2020 and 2021. These included financial commitments to Halal food technology platforms, including cloud kitchens and online cloud delivery apps. Particularly, the fast-moving consumer goods (FMCG) industry, which supplies packaged foods, beverages, toiletries, and cosmetics, has drawn a lot of interest. The Saudi Arabian Food Organisation

(C3 Arabia) and the investment firm (WK Holding) have joined forces and plan to invest \$200 million in the official launch of 500 stores over the next few years (C3 Arabia, 2021). Sainsbury will export more than 12,000 FMCG goods from the UK to the Middle East and Africa through its newly operating port at Oman's Sohar Port.

The Malaysian food industry has also been drawing sizable international investments. Tyson Foods, a US-based meatpacking company, recently paid \$104 million for a 49% stake in the poultry division of Malayan Flour Mills (The Star, 2021). Another US-based business, Johnsonville LLC, recently acquired PrimaBaguz, a Malaysian business-to-business (B2B) processed meat company (Best, 2020). This is a major development in the halal food industry's current state and its anticipated future expansion as the business venture continues to surge and gain acceptance. If the current pace of development in the market continues, a stable process of globalisation of trade in separate segments of commodity markets will show a steady development. Hence, competition is no longer limited within national borders. As halal standards have become a global standard, the ecosystem is developing standards akin to those of all Muslims as well as non-Muslims. This presents several challenges for the halal industry, such as coming up with a globalised identity and promotional strategies.

All the mentioned developments in the Halal industry have drawn significant importance to understanding the

phenomena. Thus, this paper aims to present an extensive review of literature that highlights the factors that influence Malaysia's Halal industry development ecosystem operating in the Halal sector. Although research is abundant in the mentioned field, a comprehensive examination of these findings is often overlooked. By identifying and categorising the critical factors contributing to halal businesses' success, this paper intends to provide valuable insights for organisations operating in the halal industry, as well as those interested in expanding their operations in this sector. Furthermore, this article will review the various factors that impact businesses in different sectors of the halal industry, highlighting the unique challenges and opportunities that each sector presents. This research also aims to address a significant gap in the literature by offering a systematic evaluation that focuses on factors influencing the development ecosystem in the Halal industry. This area needs more attention because most past studies have concentrated on halal chain management and halal certification (Ab Talib et al., 2016; Omar et al., 2015).

A literature review was conducted on the factors that affect the performance of organisations in various Halal businesses. This study focuses on the key factors that aid stakeholders in achieving successful organisational performance in the halal industry. The objective of this study is to present a comprehensive analysis of the factors that influence Malaysia's Halal industry ecosystem in the Halal sector.

## **METHODOLOGY**

The ever-emerging discipline of social sciences received significant assistance from the systematic literature review. The review provided high sensitivity, specificity, and accuracy in identifying duplicate studies and optimising reviewers' time and effort (Escaldelai et al., 2023).

Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) were used in this study to ensure transparency and reproducibility. PRISMA provides a structured approach to conducting and reporting systematic reviews and meta-analyses. This increases the reliability of the findings and helps reduce bias (Moher et al., 2009). PRISMA also improves the quality and comprehensiveness of reviews. Using PRISMA in this study helps ensure that all relevant studies are considered, which enhances the comprehensiveness of the review (Page et al., 2021). In this study, PRISMA is instrumental in summarising all articles that have been included, and it helps in synthesising the included articles for drawing generalisable conclusions (Shamseer et al., 2015.)

This research examines the factors affecting the performance of organisations adopting PRISMA as a systematic literature review methodology. According to Cavalcante and Tomasetti (2020), this methodology has its roots in the field of social science research. Systematic Literature Reviews (SLR) provide a more accurate and reliable approach for determining pertinent studies within a specific subject matter than conventional

literature reviews, which rely on manual article selection. SLR ensures a high-quality approach that allows comprehensive design, incorporating a structured search strategy, predetermined criteria for including or excluding studies, and a content analysis procedure conducted by multiple reviewers. A systematic review facilitates the selection of appropriate literature by screening a substantial quantity of research papers at first, prior to narrowing it down to fewer ones that address and concentrate on the subjects of this study. The approach and results of a systematic review can also be objective, repeatable, and reliable (Perez et al., 2020).

In this study, the systematic review aims to answer one research question: What are the important factors in the halal industry's development ecosystem? Therefore, the main objective of this study is to identify the factors that significantly affect the industry's ecosystem. Additionally, the subsequent section explores the justification for conducting this systematic review and offers a defence of the approach taken to answer the research question. The systematic review process and academic literature review allow the researcher to locate, select, and rate significant research. Finally, these discussions and arguments can bridge the knowledge gap and improve organisational performance within the Halal industry, as discussed in the concluding part, followed by appropriate recommendations.

As confirmed by prior studies (Bartolini, 2019; Huang et al., 2020; Linnenluecke et al., 2020; Puspitarini et al., 2023), this study

applies a methodical assessment of current literature along with bibliometric analysis. The PRISMA Protocol, which includes critical phases including identification, screening, eligibility evaluation, and inclusion criteria, serves as the foundation for this project (Page et al., 2021). As observed in earlier studies (Donthu et al., 2021; Huang et al., 2020), the procedural trip begins with designing research objectives, drafting research queries, and implementing thorough search techniques for data collection. This study seamlessly integrates the systematic phases of an SLR and Bibliometric Analysis (BA) with formulating research questions, developing search strategies for data acquisition, and the subsequent analytical evaluation. This review is organised by thoroughly searching for relevant datasets from the top down.

Integrating the SLR and BA approaches has become a widely accepted standard in the field of academic research. It has the potential to improve ongoing research in several areas, including sustainable global sourcing (Jia & Jiang, 2018), supply chain financing (Xu et al., 2018), green warehousing (Bartolini, 2019), and research methodology (Linnenluecke et al., 2020). However, research that concentrates primarily on obtaining a comprehensive literature review and bibliometric analysis of the factors influencing the growth of the Halal industrial ecosystem is noticeably lacking. As a result, the purpose of this research is to summarise, synthesise, and conduct a visual interpretation of studies that address factors associated with the

growth and performance of the Halal industrial ecosystem. The implementation of bibliometric visualisation analysis (BVA), a quantitative method used to analyse and illustrate bibliographical knowledge, complements this thematic systematic review and offers significant insights into the relationships and patterns found in journals or articles (Gorji et al., 2019; Huang et al., 2020).

While bibliometric analysis is a powerful tool for understanding publication trends, using it as the sole method in a study, especially one as complex as the development of Malaysia's halal industry ecosystem, has clear limitations. It focuses primarily on counting citations and keywords, offering only a surface-level view of research trends without capturing the deeper context or nuances of the subject (Linnenluecke et al., 2020). This can lead to a bias toward established studies, potentially overshadowing newer, innovative research (Jia & Jiang, 2018). Moreover, bibliometric analysis does not explore the theoretical or conceptual intricacies necessary to understand topics like sustainability or halal certification in depth. The tool also relies heavily on the scope of the database used, which may not include all relevant works, potentially skewing the results (Linnenluecke et al., 2020). Finally, it is difficult for bibliometric methods to address more human factors, such as the perceptions of stakeholders or the cultural and regulatory challenges within the halal industry. A richer understanding would come from blending quantitative data with qualitative insights,

such as interviews or case studies, to better grasp the full picture of this evolving industry.

### **Strategic Literature Search**

The review was executed in a systematic manner, observing every step in the SLR process. This process was performed by employing the procedural framework established at an early planning phase, drawing on knowledge from past studies (Cooper et al., 2018). For this study, a dataset spanning five years was deemed sufficient. This is also due to the expanding growth rate of the global Muslim population within these five years, which indicates a rise in Halal product consumption (Aulia & Azizah, 2023). The Scopus dataset was chosen as the source for analysis and study because of its wide coverage, data integrity, dependability, and conformance with accepted standards for publication ratings (Baas et al., 2020).

The following chronological order was observed for the dataset collection process: (1) logging onto Scopus.com, (2) entering the search terms listed in Table 1 into the appropriate search fields, which included the title, abstract, and keywords (halal, industry, halal industry, halal market, business, trade, commerce, factors, elements, characteristics, components, facet, aspect, development, growth, and evolution), (3) articles and reviews are included in the list of acceptable document types, (4) selecting the publication year between the years of 2011 and 2020, and (5) 89 articles and reviews from the search formed the dataset.

Table 1  
The Scopus search query for SLR and BA

Search Query	Search Area
TITLE-ABS-KEY ( ( "halal" ) AND ( "industr*" ) OR ( "halal industr*" ) OR ( "halal market" ) OR ( "business" ) OR ( "trad*" ) OR ( "commerce" ) AND ( "facto*" ) OR ( "elemen*" ) OR ( "characteristi*" ) OR ( "componen*" ) OR ( "face*" ) OR ( "aspec*" ) AND ( "develo*" ) OR ( "gro*" ) OR ( "evolv*" ) ) AND PUBYEAR > 2018 AND PUBYEAR < 2024 AND ( LIMIT-TO ( SRCTYPE , "j" ) ) AND ( LIMIT-TO ( DOCTYPE , "ar" ) ) AND ( LIMIT-TO ( SUBJAREA , "BUSI" ) OR LIMIT-TO ( SUBJAREA , "SOCI" ) OR LIMIT-TO ( SUBJAREA , "ECON" ) OR LIMIT-TO ( SUBJAREA , "ARTS" ) ) AND ( LIMIT-TO ( LANGUAGE , "English" ) ) AND ( LIMIT-TO ( AFFILCOUNTRY , "Malaysia" ) )	Title, abstract and keywords

The data was gathered in Comma Separated Values (CSV) format and entered into Mendeley, the reference manager. Subsequently, data in a CSV file was displayed using the Vosviewer software for BA analysis. The ensuing process involved screening or document extraction by applying the inclusion and exclusion standards established during the earlier identification phase.

**Inclusion and Exclusion Criteria**

At this stage, all articles and reviews were screened (extracted) to identify the data suitable for SLR analysis. The selection criteria are presented in Table 2.

The selection process based on these exclusion and inclusion criteria has resulted in the final 27 articles for the next eligibility assessment.

**Quality Assessment for Eligibility**

The articles selected will be assessed using the following quality assessment criteria questions:

- (a) Is the journal article’s topic relevant to the focus of this study?
- (b) Does the journal article extensively discuss key factors in the halal industry’s development ecosystem?

Next in the selection process, for the question listed above, each article will

Table 2  
Exclusion and inclusion criteria

No.	Exclusion Criteria	Excluded Result
1	Articles not within the Malaysian context	11
2	Articles not addressing related topics within the Halal industry development ecosystem	5
3	Conceptual articles	1
No.	Inclusion Criteria	Exclude Result
1	Full-text articles on important factors in Malaysia’s halal industry development ecosystem	3



be labelled with a response in the table as follows: 'Y' for 'yes' (if it addressed the questions), and 'N' for 'no' (if it did not address the questions). Twenty-seven articles went into full synthesis after the eligibility stage.

### ***Identification***

The articles were systematically searched using strategic search strings to identify relevant articles for this study. No article duplication was found in the article dataset, and forty-seven articles were screened in the second stage to determine inclusion and exclusion criteria. The criteria for inclusion included limiting the search to journals that cover the Malaysian context and excluding other types of publications, such as systematic reviews, meta-analyses, and conference proceedings. The articles selected for this study discussed the factors affecting the development of the Halal ecosystem in Malaysia, and one conceptual article was excluded to ensure that the discussion was based on empirical findings. A total of eighteen articles were excluded based on the inclusion and exclusion criteria.

### ***Screening***

A total of forty-seven articles were selected for the second stage, which involved screening. During this phase, titles, abstracts, and content of the articles were scrutinised to ensure that they met the inclusion criteria and were relevant to the study. After the screening, twenty-seven articles were excluded as they did not focus on findings related to the social sciences, were not based

on empirical procedures, and did not focus on the development of the Halal ecosystem in Malaysia. The remaining twenty-seven articles were deemed suitable for the study and represent various sectors of Malaysia's Halal industry development, which is the context that this study aims to explore using an empirical technique.

### ***Quality Assurance***

All chosen articles were subjected to a quality control procedure to ensure the fairness of the selection process. The PRISMA checklist was employed by an assorted panel of specialists from the domains of halal study, organisational communication, and brand study to scrutinise all the articles that were shortlisted for evaluation. Three experts were selected from these fields to evaluate the articles. For an article to be considered for the meta-analysis process, the quality assurance committee members need to reach a consensus. Any disagreements were thoroughly discussed to determine the validity of the articles in question. This process was crucial in ensuring that the selected articles met the specified criteria. Once all evaluating committee members agree, the final set of articles is confirmed, thus solidifying the justification for their inclusion. The quality control process was instrumental in establishing the validity of the selected articles (Shaffril et al., 2019).

Figure 1 shows the steps for selecting documents for the systematic literature review (SLR) and background analysis (BA). First, in the identification stage, all documents were gathered through an

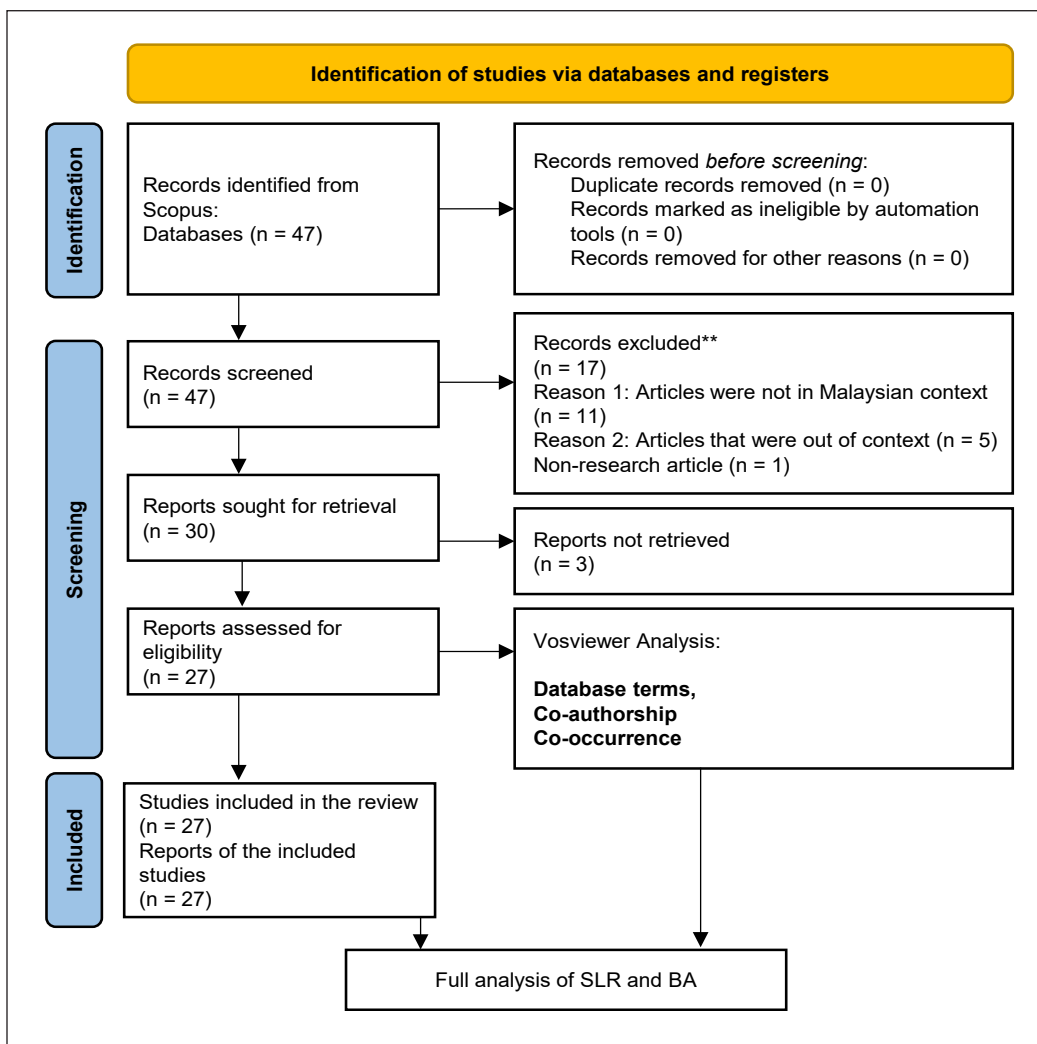


Figure 1. The review protocol of the article’s selection in the study

advanced search on Scopus using specific search terms and clear inclusion and exclusion criteria. This step helped set the study’s focus. Then, the search on Scopus targeted journal articles from 2019 to 2023 that explored factors in the development of Malaysia’s Halal industry, yielding thirty articles. After screening, three articles were removed due to unavailability, leaving

twenty-six suitable for BA with VOSviewer and thematic analysis for SLR. The findings from both analyses are discussed in detail in the results section.

### Analysis Software (Tools)

Version 1.6.19 of VOSviewer, a visualisation tool created by the University of Leiden’s Centre for Science and Technology Studies

(CWTS; Traag & Waltman, 2019), was used to map and analyse the data available on the VOSviewer website. This tool is widely used for visualising bibliometric networks and metadata, such as titles, authors, journals, abstracts, and keywords. The latest version of VV Online comes with a shared menu that enables readers to explore the visualisation results interactively and independently.

## RESULTS AND DISCUSSION

Out of 74 articles extracted based on the research questions identified, 36 were analysed in full text. The following data analysis presents visualisations and descriptions of the results in the order of the determined research questions.

### Publication Development over Time in the Scopus Database

The publication development over the course of all twenty-seven articles is shown in Table 3.

Table 3  
*The number of articles published each year*

Year	Frequency	Percentage
2019	5	18.5
2020	5	18.5
2021	5	18.5
2022	4	14.9
2023	8	29.6
Total	27	100

It shows the number of Scopus-indexed documents on the development of Malaysia's Halal industry ecosystem. The

number of studies was consistent from year to year. A slight decrease was observed in 2022, but research reached its peak in 2023. From 2019 to 2023, the number of articles continued to increase. The highest number of documents was found in 2023 (n = 8), while the year 2022 has the least amount of paperwork (n = 4). The consistent amount of research conducted until 2023 indicates that research on the development of Malaysia's Halal industry ecosystem is crucial and aligns with the vision and direction of the government.

The network visualisation is used to explore research on the development of Malaysia's Halal industry ecosystem. In network visualisation, interrelated terms are presented in previous studies. The visualisation consists of twenty-one clusters, 664 items, 11853 links, and 18782 total link strengths.

The various colours in Figure 2 show the dominant notes of the clusters of terms. The word "manufacturer" is linked with both "traceability system" and "model." The online VV tool helps readers observe the visualisation, which can aid future researchers in conducting independent studies to discover new research concepts by examining connected and undiscovered networks. Researchers can employ the map to investigate new ideas or concepts integrating established and diverse subjects. Future researchers are advised to select themes with non-networked keywords (i.e. "marketing" and "basic need") based on these results.

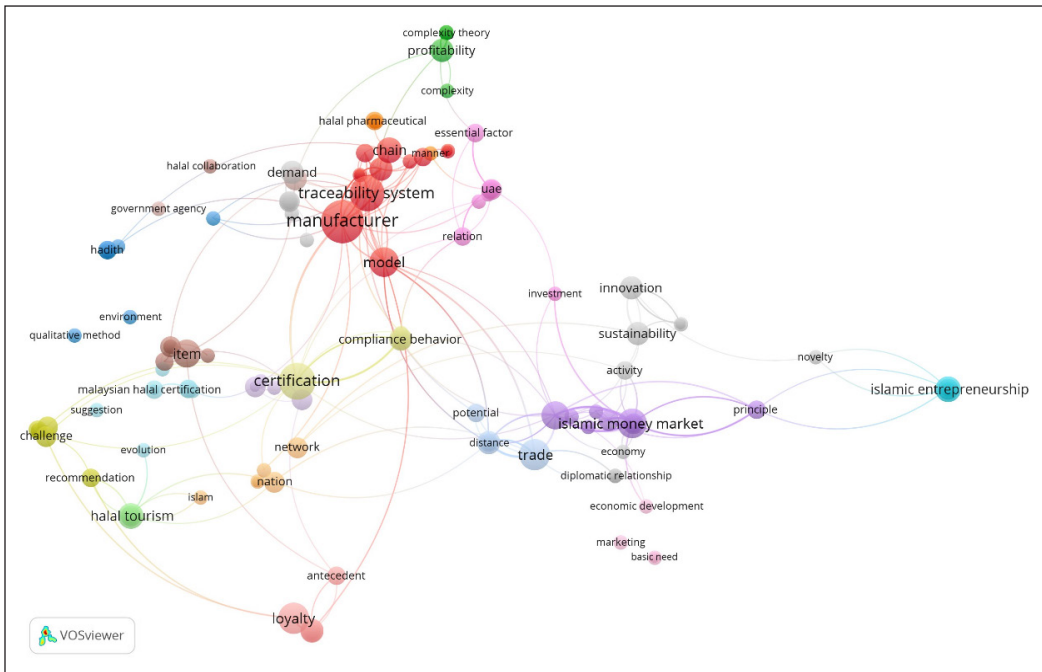


Figure 2. Dominant nodes cluster in this study

### Co-authorship Visualisation Analysis

The twenty-seven articles were analysed using VV. Vosviewer allows for adjusting the number of authors' minimum works to be displayed. Before visualising the dataset on the map, Vosviewer asks if the authors have a connection, with a "Yes or No" answer. "Yes" means only the author has a relationship or connection with each other, as indicated by the single large circle in the visualisation, representing the author as a top author. In this study, the researcher chose not to include co-authorship relationships, as indicated by the "No." selection to complete the analysis. Finally, the visualisation was generated and is presented in Figure 3.

The visualisation network sharing available in the latest version of VV allows readers to access the visualisation

interactively. This visualisation displays the names of authors with at least one document and shows their connections in circles and links. Ninety-six authors, thirty-six clusters, and 113 links are displayed in the visualisation. The size of the circle represents the centre of each cluster.

The authors with the highest citations are Hew et al. (2020), with sixty-seven citations. If the numerical value suggested by Vosviewer is increased, the number of authors who satisfy the criterion will decrease, and vice versa. Therefore, it is imperative for researchers to determine the minimum number of works an author should display. Several interconnected names in a cluster signify that the authors are collaborating. Consequently, this presents opportunities for collaboration with writers

who have not yet established a wide-ranging network. When many names are clustered together, it indicates that they are cooperating, and this results in writing opportunities being distributed globally and not yet having established a significant network.

The study's co-authorship visualisation analysis offers insights into collaborative trends among researchers in the field of halal industry development. Using VOSviewer software, a network map was generated to represent the connections among authors based on shared publications. This visualisation highlights prominent researchers within the network and reveals

those who are more engaged in collaborative work.

An important outcome from the analysis is the identification of distinct author clusters, which indicates that certain researcher groups are forming collaborative networks, likely due to shared research interests or geographical closeness. These clusters are beneficial for advancing knowledge in targeted areas of the halal industry, as they allow researchers to pool their expertise to address complex challenges more efficiently. This collaborative environment encourages the exchange of ideas, which can lead to new approaches and more in-depth studies.

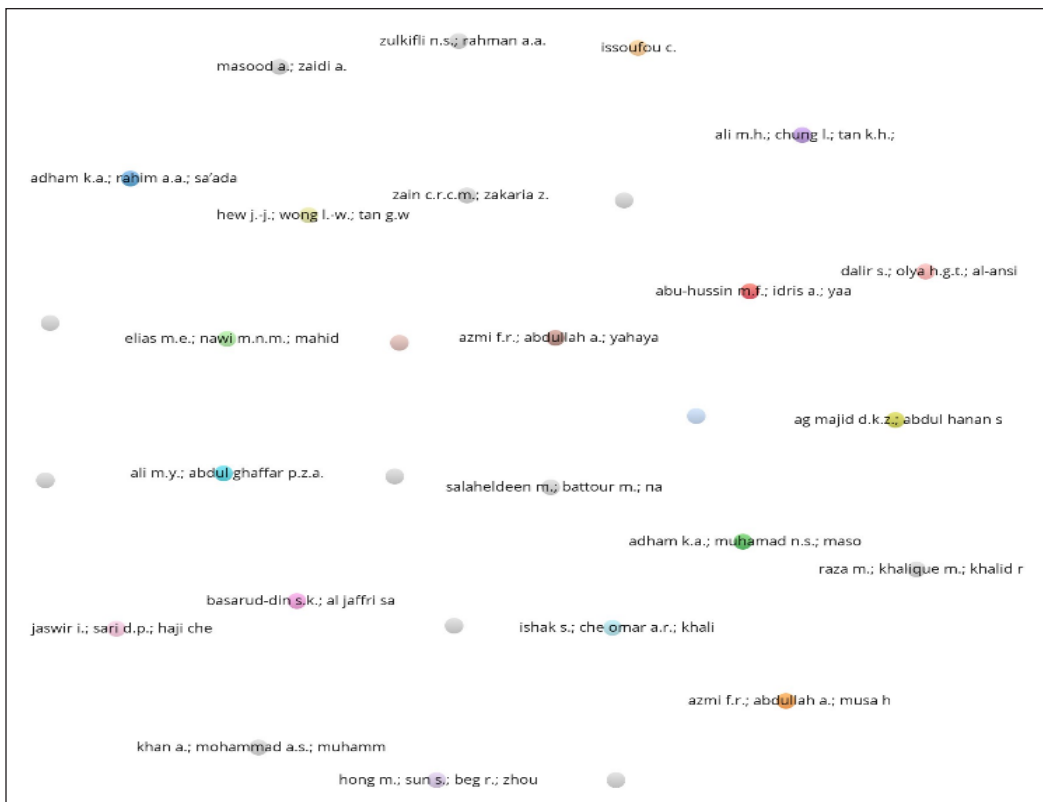


Figure 3. Network visualisation of co-authorship

The analysis further identified differences in connectivity levels among authors within the network. Certain researchers seem to work more independently, showing fewer connections to others. This limited interaction may reduce their access to interdisciplinary research opportunities and innovation, which frequently benefit from collaborative engagement. For these less-connected authors, joining collaborative efforts could potentially enhance their research influence and relevance within the halal industry.

It is important to note that the analysis deliberately omits certain co-authorship relationships based on researcher selection. As a result, while the visualisation offers a valuable overview, it may not entirely represent the complete co-authorship landscape within the halal industry. Additional researchers and collaborative efforts may be beyond those displayed in the present network, indicating that a broader analysis could offer a more thorough understanding by encompassing all potential connections.

### Co-occurrence Analysis of Authors' Keywords

Figure 4 illustrates the outcome of a co-occurrence analysis performed on the keywords present in the studies. Out of the 123 keywords that met the criteria of being mentioned at least once in the Scopus dataset between 2019 and 2023, the author selected those that appeared at least once due to the restricted number of articles in the dataset. This analysis furnishes a broader perspective on new research ideas, and the visualisation allows for online mapping, enabling readers to explore new research ideas by examining connected or unconnected networks independently.

Utilising VOSviewer, the co-occurrence examination of authors' keywords offers a comprehensive insight into the primary themes and subjects that scholars emphasise within the halal sector. This investigation pinpoints the most commonly employed keywords in scholarly publications and underscores their frequency of joint appearance in research. Consequently,

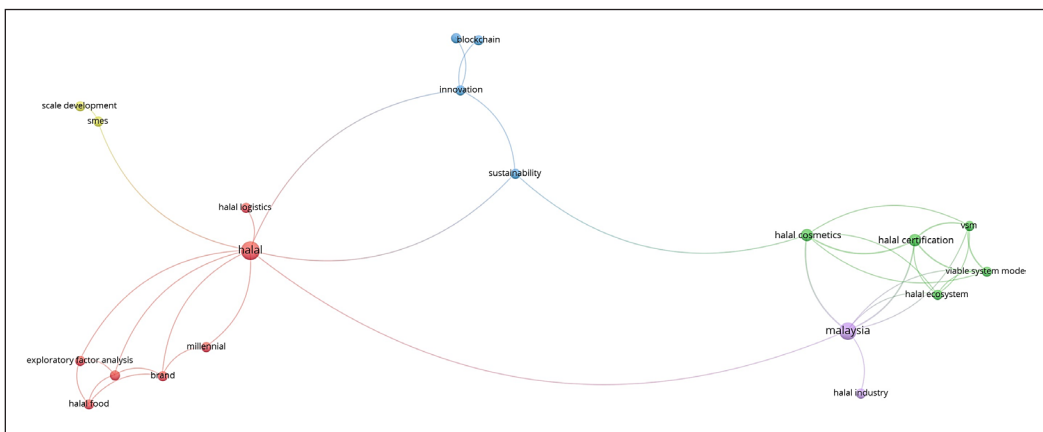


Figure 4. Co-occurrence visualisation author keywords

this aids in comprehending the principal areas of interest within the field and the interconnections between various topics.

The examination reveals that “*halal*” emerges as the most prevalent and pivotal term in halal industry research. While this is expected given the field’s focus, the significance lies in how this keyword interrelates with others, illuminating key research areas. For example, “sustainability” appears as a prominent keyword frequently occurring alongside “halal” in numerous studies. This implies that researchers are increasingly associating halal industry practices with sustainability initiatives, suggesting a growing recognition of the necessity for sustainable approaches in halal-related enterprises, such as food production, logistics, and product certification.

The term “*innovation*” emerges as another crucial keyword linked to both “*halal*” and “*sustainability*.” This connection indicates a drive to discover novel approaches for enhancing halal practices whilst maintaining environmental friendliness and social responsibility. It demonstrates that the halal sector is not merely adhering to conventional methods but is actively seeking cutting-edge solutions to contemporary challenges, such as employing technology for halal certification and safeguarding the authenticity of halal products in global supply networks.

Alongside sustainability and innovation, the analysis underscores keywords like “halal cosmetics” and “*halal logistics*,” revealing these as particular areas of burgeoning interest within the

broader halal industry. The emphasis on cosmetics implies growing attention to ensuring non-food items, including beauty and personal care products, also comply with halal standards. Concurrently, “*halal logistics*” suggests that researchers focus on how halal goods are stored, transported, and delivered to consumers, ensuring adherence to halal guidelines throughout the supply chain.

The co-occurrence analysis also highlights emerging topics that have yet to be thoroughly explored. For instance, the keyword “*blockchain*” appears in relation to “*innovation*,” indicating that researchers perceive potential in utilising blockchain technology to enhance transparency and traceability in the halal supply chain. However, this subject has not been extensively researched, presenting an opportunity for future studies to investigate how blockchain can be employed to improve halal certification processes and consumer confidence.

In summary, this co-occurrence analysis provides a clear overview of the key themes driving contemporary research in the halal industry. It reveals a strong focus on sustainability, innovation, and specific sectors such as cosmetics and logistics. Furthermore, it identifies emerging topics like blockchain that show promise for future investigation. This analysis offers valuable insights into the direction of the field and suggests areas where researchers and industry stakeholders could concentrate their efforts to meet the evolving demands of the halal market.

A comprehensive search resulted in the discovery of forty-seven relevant studies, which were systematically evaluated. Following this process, a total of twenty-seven articles were ultimately selected for thematic synthesis. The table below details the findings of each study. Furthermore, a thorough narrative summary is essential to provide readers with a clear understanding of the key themes and discoveries presented in the chosen articles.

Table 4 explains the findings in all selected articles from the thematic study through SLR. Summarising the findings is fundamental to offering readers a better understanding.

In Table 4 and Table 5, all articles were pooled based on publish date, along with the themes and sub-themes of all findings.

This article presents a systematic literature review using thematic analysis and network visualisation of twenty-seven articles on the key factors in the halal industry's development ecosystem. The study describes, analyses, and summarises the scope of discussions related to this research field. It was found that the studies' discussion revolved around sustainability as the epicentre of the study. Our analysis shows sustainability as a focal point, anchoring other themes identified in this SLR and BA. Innovation and activities in the halal industry were correlated with sustainability factors. This indicates that the Halal industry is consistently operating businesses that are in line with the Sustainable Development Goals (SDGs). This will open a new frontier for future researchers to explore more

possibilities for sustainable practices and management in the halal industry ecosystem. Sustainability, certification, Halal standards, performance, warehouse, and identity values were the themes that became the largest themes studied in the most recent years (2022 and 2023). Certification, Halal standards, performance, warehouse, and identity shared the sub-themes as follows: (1) legal, (2) politics, (3) knowledge, (4) stakeholders, (5) challenges, (6) business, (7) spiritual, (8) practices, and (9) culture.

The SLR and BA analyses contributed to identifying themes and sub-themes from previous studies, (2) exploring and integrating the previous research areas into the new practices and environment in Halal businesses, (3) visualising the interconnection between the keywords in selected articles by visualisations of author keywords, and (4) generating the topic network in the research area to facilitate more advanced discussions pertaining to the Halal industry ecosystem.

As one of the biggest global industries, a strategic development ecosystem is paramount for the halal industry. Efforts to internalise the value of sustainability into the halal business ecosystem through its strategic management effort are vital (Karia & Asaari, 2016). The implementation of the Halal certification programme and blockchain technology is a promising area for innovation and collaboration by local authorities, industrial organisations, and key consumers. This could potentially drive growth in fair trade, ethical business practices, green animal husbandry,



Table 4  
Summarisation of findings

Authors	Findings
Abu-Hussin et al. (2021)	The prevalence of "Islamic commercial brands" in most interactions indicates that the religious element remains relevant despite the political and economic factors.
Jaswir et al. (2023)	Most food companies in Malaysia have yet to understand the significance of implementing the Halal Food Standard (HFS) despite the Malaysian Government's goal of achieving its HFS MS1500.
Ag Majid et al. (2021)	The level of concern for halal, understanding of halal, and perception of halal logistics all directly impacted consumers' willingness to pay for halal logistics services. Furthermore, consumers' awareness of halal logistics played a significant role in their willingness to pay as long as their perception of halal logistics was favourable.
Zulkifli & Rahman (2019)	The five external factors of government pressure, supplier pressure, customer pressure, competitor pressure, and government support are found to have a significant relationship with the adoption of Halal certification among cosmetic manufacturers in Malaysia.
Hew et al. (2020)	Manufacturers who adopt a comprehensive Halal orientation strategy will be better prepared to handle the institutional pressures that demand participation in a traceability system. In response to these pressures, manufacturers will evaluate the technological features of the system and determine their level of interest. Subsequently, manufacturers with a favourable perceived desirability will opt to join the system.
Azmi et al. (2020)	The perception of food manufacturers with regard to the potential business benefits they expect to reap is a crucial factor in the adoption of the Halal Food Supply Chain. Halal integrity is the second factor that motivates companies to adopt this supply chain, followed by organisational readiness, which drives the adoption.
Zainudin et al. (2020)	The three dimensions of the Halal brand—personality excitement, sophistication, and righteousness—have a strong correlation with brand loyalty.
Jaafar et al. (2021)	An examination of qualitative data from 38 port stakeholders in southern Malaysia indicates that the establishment of a halal-friendly sustainable port could support the pursuit of sustainable practices. The results of the focus groups confirm that four key elements are crucial for the effective implementation of a Halal-Friendly Sustainable Port (HFSP): (1) a dedication to separation and halal protocols, (2) the implementation of proper sanitation practices in port operations, (3) the identification of halal control points, and (4) the monitoring of the halal status of cargo.
M. Y. Ali et al. (2022)	The trading partners' strong economic standing (gross domestic product) boosts halal trade, and distance does not impact the volume of halal food exports. Furthermore, Malaysia has the potential to export only a limited number of food commodities to key halal markets.
Salaheldeen et al. (2023)	The following four dimensions can impact the success of a halal market: Islamic success, economic success, social success, and environmental success.
Harun et al. (2023)	Two internal challenges that Halal auditors face when presenting Halal certification are the documentation process and the status of raw materials or ingredients. This research has revealed the problems in these areas and three other external obstacles that fall outside the scope of the Halal audit, including customer issues, a lack of equipment, and time allocation.
Nizam et al. (2019)	The following are some key factors that impact the globalisation of the halal food industry: (1) Halal certification, (2) Halal logistics, and (3) Trade barriers.

Table 4 (continue)

Authors	Findings
M. S. S. Ali et al. (2021)	The study indicates that social media networks are crucial for marketing strategies. Social media has a significant impact on enhancing brand positioning and differentiation. Furthermore, the study shows that new digital marketing trends meet basic marketing needs, such as generating sales, and create opportunities for small and medium-sized enterprises (SMEs) in the halal food industry to grow and succeed.
Raza et al. (2023)	The study found that there are two key themes that contribute to the positive business performance of Halal SMEs, which are: (1) ethical business practices such as trustworthiness, honesty, and truthfulness, and (2) the spiritual aspects of Islamic entrepreneurship, including <i>taqwa</i> , having good intentions, and respecting religious obligations.
Adham et al. (2022)	The study found that there are four factors that have an impact on the establishment and success of the Malaysian halal certification system. These are (1) the legal framework and policies for developing the halal industry, (2) the government's commitment to supporting the religious practices of its citizens and investing in centralised management and enforcement of halal standards, (3) knowledge of Islam and true halal practices within the central authority, and (4) the active involvement of consumers who demand the integrity of halal practices.
Elias et al. (2019)	The R <sup>2</sup> value of the research model is 0.724, indicating that the halal industry, halal collaboration, and halal international logistics can each explain 72.4% of the variability in the relationship's extent. The high demand for halal logistics services from international halal logistics, the collaboration between the F&B industrial sector and government agencies, and the growing awareness of halal interests among customers are the factors that are putting pressure on SMEs to adopt halal logistics services.
Khan et al. (2021)	The level of brand experience plays a crucial role in determining brand love, which in turn impacts trust, satisfaction, and loyalty for Halal brands. The direct or indirect effects of brand experience and love on brand-related outcomes such as trust, satisfaction, and loyalty have been observed.
Ishak et al. (2020)	The study suggests that the cosmetic purchase behaviour of millennial Muslims is categorised as "limited decision-making," due to their proactive behaviour in seeking information about ingredients, halal certification, country of origin, health safety guarantees, and the benefits of cosmetic products.
Kamarulzaman et al. (2022)	The results of the empirical study showed a strong relationship between a halal traceability system's perceived utility (PU) and environmental aspect (EA). The introduction of such a system appears to be contingent upon several factors, including sales revenue, PU, perceived ease of use, technological aspects, organisational aspects, and EA.
Azmi et al. (2019)	The study reveals that in the Halal standard, two factors are grouped under the technological factor: compatibility and perceived benefits. Six factors are grouped under the organisational factor: Halal integrity, awareness, top management support, expected business benefits, understanding of practices, and organisation readiness. Lastly, four environmental factors are grouped: Halal market demand, consumer pressure, competitive pressure, and government support.
Adham et al. (2023)	The Malaysian halal certification system for cosmetics has shown promise, but there is a lack of dedicated policy for halal cosmetic development and a comprehensive legal framework to govern its creation and use.
Issoufou (2019)	The use of third-party guarantees in Islamic money markets is acceptable, but to distinguish it from conventional money markets, where fees are commonly charged, it should be voluntary and without any fee.

Table 4 (continue)

Authors	Findings
Wong et al. (2023)	The research findings uncovered the warehouse workflow, employees' adherence to halal guidelines in the warehouse, and their perception of the significance of halal warehouse practices in producing halal pharmaceuticals.
Basarud-din et al. (2022)	The investigation revealed a positive and meaningful impact of attitude, social influence, and awareness on the determination to adhere to Malaysian halal certification. The mediating effects of attitude and awareness demonstrated positive and substantial relationships between social influences and the intention to comply with halal certification. Furthermore, the determination to comply also had a significant and positive effect on the conduct of Malaysian Muslim entrepreneurs regarding halal certification.
Hong et al. (2020)	By maximising consumer utility, diplomatic relationships and other institutional factors, such as halal-related variables, are integrated into an augmented gravity model. The results indicate that strengthening and improving diplomatic relations tend to increase trade between countries.
Masood & Zaidi (2023)	The utilisation of cybernetics and systems thinking within a growth diagnostics framework has facilitated the identification of comprehensive growth constraint variables for the halal cosmetics ecosystem and the mapping of these variables in a relationship network. The results of this analysis indicate that the enforcement activities of the National Pharmaceutical Research Agency's Cosmetics Unit have the greatest impact on five growth constraints and are associated with three additional growth constraint variables, making it the most restrictive growth constraint in the ecosystem.
Musthofa et al. (2023)	The emergence of Islamic identity in aspects of halal tourism in a nation has the potential to hinder the development of cultural tourism commodities due to debates surrounding the growth of halal tourism.

Table 5

*Themes and subthemes of findings*

Author	Themes	Subthemes
Issoufou (2019), Azmi et al. (2019), Elias et al. (2019), Nizam et al. (2019), Zulkifli, & Rahman (2019)	Stakeholder perception, integrity, brand personality, organisation readiness, and knowledge	Pressures, collaboration, interest, certification, logistics, loyalty, and information-seeking
Hong et al. (2020), Ishak et al. (2020), Zainudin et al. (2020), Azmi et al. (2020), Hew et al. (2020)	Strategic, logistics, pressures, economic strength, partnership, brand love	Willingness to pay, strategic traceability system, partnership proximity, experience
Khan et al. (2021), M. Y. Ali et al. (2022), Jaafar et al. (2021), Ag Majid et al. (2021), Abu-Hussin et al. (2021)	Sustainability, religious element, social media	Brand communication, traceability system, practices, success, and brand positioning
Basarud-din et al. (2022), Kamarulzaman et al. (2022), Adham et al. (2022), M. Y. Ali et al. (2022)	Certification	Legal, politics, knowledge, and stakeholders
Adham et al. (2023), Harun et al. (2023), Raza et al. (2023), Wong et al. (2023), Musthofa et al. (2023), Masood & Zaidi (2023), Jaswir et al. (2023), Salaheldeen et al. (2023)	Halal Standard, performance, warehouse, identity	Challenges, business, spiritual practices, culture

and environmental economics, thereby contributing to sustainable development (Bux et al., 2023).

The findings suggest that SLR and BA methodologies were able to highlight the latest themes and sub-themes in halal industry development research, and these findings are fundamental in shaping future practices and developments in halal business. This has a significant impact on the halal industry development ecosystem (M. Y. Ali et al., 2022; Amalia et al., 2023). As Scopus has indexed the latest mentioned themes and sub-themes, trending research can open a new prospect for researchers exploring sustainable practices for the Halal industry. It is imperative to delve into this topic, as the findings can serve as a reference and basis for the growth and evaluation of its internalisation. The visualisation of networks displays a comprehensive outline of the lesser-explored subjects, providing a mapping of the factors that influence the development of the Halal industry ecosystem. The primary contribution of this paper lies in its systematic classification and summary of the key determinants that shape the Halal industry.

The results from the systematic literature review (SLR) and bibliometric analysis (BA) highlighted the central importance of sustainability in underpinning key themes within the expanding research on the Halal industry ecosystem. Alongside sustainability, significant attention has been directed towards Halal policy and Halal brand management. Research on Halal policy primarily addresses certification

processes, standards, and the intricacies of the supply chain. Meanwhile, studies on Halal brand management emphasise aspects such as stakeholder engagement, brand loyalty, positioning strategies, and cultural influences.

The study's findings indicate that Malaysia's halal industry is poised for substantial growth, driven by key factors such as sustainability, innovation, and diversification across multiple sectors. Sustainability has become increasingly important as businesses are encouraged to adopt eco-friendly practices like waste reduction, energy-efficient production, and the responsible sourcing of materials. These efforts appeal to environmentally conscious consumers and enhance the global standing of halal-certified businesses. Additionally, the integration of advanced technologies, such as blockchain, is significantly transforming the industry. Blockchain technology ensures transparency and traceability throughout the halal supply chain, which strengthens consumer trust in halal products. This is particularly important as the industry expands into sectors like cosmetics, pharmaceuticals, and logistics, all of which require strict compliance with halal certification standards.

## CONCLUSION

Malaysia is uniquely positioned to drive the global growth of the halal industry, largely due to its internationally respected and comprehensive halal certification framework. The country must continue upholding rigorous standards while adapting

to evolving global market demands to sustain its leadership in this sector. As the halal industry expands, new opportunities emerge in areas such as halal-certified cosmetics, pharmaceuticals, tourism, and logistics. These sectors cater to Muslim and non-Muslim consumers' ethical and quality preferences. Malaysia's commitment to innovation and strong regulatory foundation provides a significant advantage in tapping into these growing markets.

As the global demand for halal products rises, Malaysia can enhance its leadership position by fostering greater collaboration among businesses, government bodies, and certification agencies. This unified approach will help Malaysia maintain its edge over international competitors while driving innovation in critical areas like halal logistics, supply chain management, and the use of emerging technologies such as artificial intelligence and blockchain for certification and compliance. By staying adaptive to both global and local trends—particularly in sustainability and digital transformation—Malaysia's halal industry is well-positioned to sustain its competitive advantage. The future outlook is optimistic, as advancements in technology, coupled with a growing range of halal-certified products, will ensure that Malaysia remains a pivotal player in the global halal market.

### **Implications of Study**

As for the research implications, the advancement of technology in blockchain, social media, and artificial intelligence (AI) are the recommendations for future

researchers who might want to explore this area of study with a focus on enhancement in management practices, market competitiveness, and overall profitability (Adwan & Altrjman, 2024; Enshassi et al., 2024; Purwaningsih et al., 2024). Following the advancement of technology, it is pivotal to advance the development of the Halal industry as a major contributor to the world economy. In practice, this study holds significant implications for Halal authorities, industries, and stakeholders engaged in the policy and certification of Halal goods and services. This, in turn, will allow them to respond appropriately to the latest issues and challenges in the Halal market.

Lastly, the outcomes of past research trends can be determined by analysing the distribution of the number of recorded keywords based on the year of publication of the research. Future researchers are encouraged to conduct bibliometric and SLR studies. It is recommended that they utilise databases from various indexing journals to gain a comprehensive range of study options.

### **Recommendations**

The study will benefit industrial players operating within the halal industry in Malaysia by offering a number of practical recommendations. Industrial players should focus on sustainability, where companies need to adopt eco-friendly procedures in their operations, such as maximising the use of resources, adopting processes that are energy-efficient, and sourcing materials responsibly. Through the integration of

sustainable methods, industrial players will not only be able to reduce the environmental impact but also create interest from consumers who prioritise sustainability in their daily lives. This will boost their brand reputation and foster a strong loyalty to their customers, both domestically and internationally.

Another recommendation from this study that will improve the ecosystem in the industry is the betterment of supply chain transparency. Modern technologies such as blockchain enable companies to develop a digital record of steps in their production process, allowing for better tracking of resource origins for more robust management of halal products. High transparency is paramount in maintaining customer trust, especially in business where halal certification plays a crucial role in influencing purchase decisions. In the end, this will ensure that products adhere to halal standards, from production to product sales. This, of course, will strengthen the business's credibility within the industry.

Apart from sustainability and improvements in the supply chain, businesses should also focus on effective halal brand management. This should include identifying the importance of cultural and religious aspects of products for all important consumer groups and utilising this opportunity to strategically position their brand. Frequently engage with customers and stakeholders through various platforms to listen to their feedback for refining products and services. This will ensure nurturing brand loyalty and

developing an in-depth connection with their customers.

Lastly, it is imperative for businesses to stay up to date with the latest developments pertaining to halal regulations and standards. In a constantly evolving industry, new certifications and policies will be introduced regularly. Businesses should sustain a good relationship with halal authorities and constantly participate in industry discussions to ensure they stay compliant with these changes. Through a constant update with evolving regulations, companies will not only be able to prevent potential legal and operational challenges but also capitalise on new opportunities in the growing halal market. Overall, adopting sustainable practices, enhancing transparency in the supply chain, improving brand management, and staying up close on regulatory changes are paramount steps for businesses to be successful in the competitive and rapidly evolving halal industry.

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## REFERENCES

- Ab Talib, M. S., Abdul Hamid, A. B., & Chin, T. A. (2016). Can halal certification influence logistics performance? *Journal of Islamic Marketing*, 7(4), 461-475. <https://doi.org/10.1108/JIMA-02-2015-0015>
- Abdallah, A., Rahem, M. A., & Pasqualone, A. (2021). The multiplicity of halal standards: A

- case study of application to slaughterhouses. *Journal of Ethnic Foods*, 8, Article 7. <https://doi.org/10.1186/s42779-021-00084-6>
- Abu-Hussin, M. F., Idris, A., Yaakop, M. R. M., & Salleh, M. A. (2021). Essential factors influencing Malaysia's relations with the United Arab Emirates. *Contemporary Review of the Middle East*, 8(4), 477-495. <https://doi.org/10.1177/23477989211031785>
- Adham, K. A., Muhamad, N. S., Masood, A., & Rahim, A. A. (2023). Diagnosing a Halal certification system for cosmetics: The viable system model approach. *Systemic Practice and Action Research*, 37, 139-159. <https://doi.org/10.1007/s11213-023-09647-x>
- Adham, K. A., Rahim, A. A., Sa'adah Muhamad, N., Masood, A., & Said, M. F. (2022). Evolution of the Malaysian Halal certification system: The viable system model as the diagnostic framework. *Jurnal Pengurusan*, 66, 29-40.
- Adwan, A., & Altrjman, G. (2024). The role of social media marketing and marketing management promoting and developing brand sustainability strategy. *International Journal of Data and Network Science*, 8, 439-542. <https://doi.org/10.5267/j.ijdns.2023.9.011>
- Ag Majid, D. K. Z., Hanan, S. A., & Hassan, H. (2021). A mediator of consumers' willingness to pay for Halal logistics. *British Food Journal*, 123(3), 910-925. <https://doi.org/10.1108/BFJ-01-2020-0047>
- Ali, M. S. S., Ahamat, A., & Yas, R. (2021). Exploring social media marketing strategies in small and medium enterprises (SMEs) of the halal food industry. *SEARCH Journal of Media and Communication Research*, 13(3), 157-168.
- Ali, M. Y., Ghaffar, P. Z. A. A., Kabir, S., & Munir, S. (2022). Halal food export and Malaysia's potential: The applicability of the gravity theory of trade. *Journal of Islamic Marketing*, 13(2), 309-328. <https://doi.org/10.1108/JIMA-01-2020-0019>
- Amalia, F. A., Lestari, Y. D., Wang, K.-J., Saidah, F., & Putri, A. N. A. (2023). Pivotal stimulants to halal certified firms: A case study of Taiwan. *Journal of Islamic Marketing*, 14(12), 3133-3149. <https://doi.org/10.1108/JIMA-06-2022-0181>
- Aulia, V., & Azizah, N. (2023). A historical review on Halal industry in the world: Challenge and improvement opportunities. *Multidisciplinary Reviews*, 7(1), Article e2024020. <https://doi.org/10.31893/multirev.2024020>
- Azmi, F. R., Abdullah, A., Musa, H., & Wan Mahmood, W. H. (2020). Perception of food manufacturers towards adoption of halal food supply chain in Malaysia: Exploratory factor analysis. *Journal of Islamic Marketing*, 11(3), 571-589. <https://doi.org/10.1108/JIMA-12-2018-0236>
- Azmi, F. R., Abdullah, A., Yahaya, S. H., Woźniak, M., & Purnomo, M. R. A. (2019). Adoption of halal standard in Malaysian food industry: A case of small and medium enterprises. *Journal of Advanced Manufacturing Technology*, 13(3), 37-49.
- Baas, M. A., van Pampus, M. G., Braam, L., Stramrood, C. A., & de Jongh, A. (2020). The effects of PTSD treatment during pregnancy: Systematic review and case study. *European Journal of Psychotraumatology*, 11(1), Article 1762310. <https://doi.org/10.1080/20008198.2020.1762310>
- Bartolini, W. M. (2019). *Convection-permitting ensemble forecasts of the 10–12 December 2013 Lake-Effect Snow Event: Sensitivity to microphysical, planetary boundary layer, and surface layer parameterizations* [Master's thesis, State University of New York at Albany]. Legacy Theses & Dissertations (2009–2024). <https://scholarsarchive.library.albany.edu/legacy-etc/2220>

- Basarud-din, S. K., Saad, R. A. J., Aminullah, A. A. (2022). Malaysian Halal certification: A study of compliance behavior of Muslim entrepreneurs. *Global Journal Al-Thaqafah*, 12(2), 46-65. <https://doi.org/10.7187/GJAT122022-4>
- Bernama. (2023, March 23). Halal industry to expand to US\$113.2bil by 2030, GDP contribution 8.1% by 2025 - Tengku Zafrul. *The Star*. <https://www.thestar.com.my/business/business-news/2023/03/23/halal-industry-to-expand-to-us1132bil-by-2030-gdp-contribution-81-by-2025---tengku-zafrul>
- Best, D. (2020, August 27). *US meat firm Johnsonville buys Malaysian group PrimaBaguz*. Just Food. <https://www.just-food.com/news/us-meat-firm-johnsonville-buys-malaysian-group-primabaguz/>
- Bux, H., Zhang, Z., Sohail, M. T., Ahmad, N., & Ali, A. (2023). Sustainable development through corporate social responsibility adoption and its drivers: Evidence from corporate industrial sector. *Environmental Science and Pollution Research*, 30, 102750-102771. <https://doi.org/10.1007/s11356-023-29540-3>
- C3 Arabia. (2021, June 1). C3, the fastest-growing omnichannel food tech platform, has created a joint venture in Saudi Arabia with global investment group WK Holding. *PR Newswire*. PR Newswire. <https://www.prnewswire.com/news-releases/c3-the-fastest-growing-omnichannel-food-tech-platform-has-created-a-joint-venture-in-saudi-arabia-with-global-investment-group-wk-holding-3013023-92.html>
- Cavalcante, R. C., & Tomasetti, G. (2020). Pentoxifylline and tocopherol protocol to treat medication-related osteonecrosis of the jaw: A systematic literature review. *Journal of Cranio-Maxillofacial Surgery*, 48(11), 1080-1086. <https://doi.org/10.1016/j.jcms.2020.09.008>
- Cooper, C., Booth, A., Varley-Campbell, J., Britten, N., & Garside, R. (2018). Defining the process to literature searching in systematic reviews: A literature review of guidance and supporting studies. *BMC Medical Research Methodology*, 18, Article 85. <https://doi.org/10.1186/s12874-018-0545-3>
- Donthu, N., Kumar, S., Pandey, N., Pandey, N., & Mishra, A. (2021). Mapping the electronic word-of-mouth (eWOM) research: A systematic review and bibliometric analysis. *Journal of Business Research*, 135, 758-773. <https://doi.org/10.1016/j.jbusres.2021.07.015>
- Elias, E. M., Nawi, M. N. M., Mahidin, N., Affendi, M., & Pozin, M. A. A. (2019). Improving 3RD party halal local service providers in halal logistics: The driving factors from Malaysian F&B manufacturing perspectives. *International Journal of Supply Chain Management*, 8(1), 644-652.
- Enshassi, M., Nathan, R., Soekmawati, S., Al-mulali, U., & Ismail, H. (2024). Potentials of artificial intelligence in digital marketing and financial technology for small and medium enterprises. *IAES International Journal of Artificial Intelligence*, 13(1), 639-647. <https://doi.org/10.11591/ijai.v13.i1.pp639-647>
- Escaldelai, F. M. D., Escaldelai, L., & Bergamaschi, D. P. (2023). Validity assessment of a computational system in the identification of duplicate studies. *Escola Anna Nery*, 27. <https://doi.org/10.1590/2177-9465-ean-2022-0143en>
- Gorji, Z., Varkaneh, H. K., Talaei, S., Nazary-Vannani, A., Clark, C. C. T., Fatahi, S., Rahmani, J., Salamat, S., & Zhang, Y. (2019). The effect of green-coffee extract supplementation on obesity: A systematic review and dose-response meta-analysis of randomized controlled trials. *Phytomedicine*, 63, Article 153018. <https://doi.org/10.1016/j.phymed.2019.153018>
- Harinderan, K. (2023, July 14). Commentary: Malaysia's halal food industry's exponential growth continues to soar. *Business Today*.



- <https://www.businesstoday.com.my/2023/07/14/commentary-malaysias-halal-food-industrys-exponential-growth-continues-to-soar/>
- Harun, N. H., Che Ibrahim, N., & Daud, M. Z. (2023). Halal auditing challenges: A case study on auditors in Jabatan Hal Ehwal Agama Islam Kelantan (JAHEAIK). *Global Journal Al-Thaqafah, Special Issue*, 140-149. <https://doi.org/10.7187/gjatsi072023-11>
- Hew, J. J., Wong, L. W., Tan, G. W. H., Ooi, K. B., & Lin, B. (2020). The blockchain-based Halal traceability systems: A hype or reality? *Supply Chain Management*, 25(6), 863-879. <https://doi.org/10.1108/SCM-01-2020-0044>
- Hong, M., Sun, S., Beg, R., & Zhou, Z. (2020). Malaysia's exports to China: Does diplomatic relationship matter? *Economic Papers*, 39(1), 72-88. <https://doi.org/10.1111/1759-3441.12270>
- Huang, I., Lim, M. A., & Pranata, R. (2020). Diabetes mellitus is associated with increased mortality and severity of disease in COVID-19 pneumonia - A systematic review, meta-analysis, and meta-regression. *Diabetes & Metabolic Syndrome*, 14(4), 395-403. <https://doi.org/10.1016/j.dsx.2020.04.018>
- Ishak, S., Che Omar, A. R., Khalid, K., Intan, I. S., & Hussain, M. Y. (2020). Cosmetics purchase behavior of educated millennial Muslim females. *Journal of Islamic Marketing*, 11(5), 1055-1071. <https://doi.org/10.1108/JIMA-01-2019-0014>
- Issoufou, C. (2019). Islamic money market and application of third-party guarantee for economic development. *Humanities and Social Sciences Reviews*, 7(2), 384-388. <https://doi.org/10.18510/hssr.2019.7245>
- Jaafar, H. S., Aziz, M. L. A., Ahmad, M. R., & Faisal, N. (2021). Creating innovation in achieving sustainability: Halal-friendly sustainable port. *Sustainability (Switzerland)*, 13(23), Article 13339. <https://doi.org/10.3390/su132313339>
- Jaswir, I., Sari, D. P., Daud, M. R. B. H. C., & Sukmana, R. (2023). Motives for participation in halal food standard implementation: An empirical study in Malaysian halal food industry. *International Journal of Islamic and Middle Eastern Finance and Management*, 16(5), 928-954. <https://doi.org/10.1108/IMEFM-07-2021-0264>
- Jia, F., & Jiang, Y. (2018). Sustainable global sourcing: A systematic literature review and bibliometric analysis. *Sustainability*, 10(3), Article 595. <https://doi.org/10.3390/su10030595>
- Kamarulzaman, N. H., Muhamad, N. A., & Nawi, N. M. (2022). An investigation of adoption intention of halal traceability system among food SMEs. *Journal of Islamic Marketing*, 13(9), 1872-1900. <https://doi.org/10.1108/JIMA-11-2020-0349>
- Karia, N., & Asaari, M. H. A. H. (2016). Halal business and sustainability: Strategies, resources and capabilities of halal third-party logistics (3PLs). *Progress in Industrial Ecology, an International Journal*, 10(2-3), 286-300. <https://doi.org/10.1504/PIE.2016.082143>
- Khan, A., Mohammad, A. S., & Muhammad, S. (2021). An integrated model of brand experience and brand love for halal brands: Survey of halal fast food consumers in Malaysia. *Journal of Islamic Marketing*, 12(8), 1492-1520. <https://doi.org/10.1108/JIMA-11-2019-0236>
- Linnenluecke, M. K., Marrone, M., & Singh, A. K. (2020). Conducting systematic literature reviews and bibliometric analyses. *Australian Journal of Management*, 45(2), 175-194. <https://doi.org/10.1177/0312896219877678>
- Masood, A., & Zaidi, A. (2023). Empowerment of SME's sustainability in halal cosmetics' ecosystem by diagnosing growth constraints. *Journal of Islamic Marketing*, 14(2), 622-644. <https://doi.org/10.1108/JIMA-12-2020-0371>
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & The PRISMA Group. (2009). Preferred reporting items for systematic reviews and meta-analyses:

- The PRISMA statement. *PLoS Medicine*, 6(7), Article e1000097. <https://doi.org/10.1371/journal.pmed.1000097>
- Musthofa, B. M., Pranita, D., Sattar Rasul, M., & Haidlir, B. M. (2023). Institutional dynamics of Halal tourism development in Indonesia and Malaysia. *Journal of ASEAN Studies*, 11(1), 89-110. <https://doi.org/10.21512/jas.v11i1.9431>
- Nizam, N. Z., Supaat, S. H., & Masrom, N. R. (2019). Sustainability and future challenges of halal product consumption. *International Journal of Human and Technology Interaction*, 3(2), 140-149.
- Omar, W. M. W., Rahman, S., & Jie, F. (2015). Halal food chain management: A systematic review of literature and future research directions. In *Proceedings of the 13th ANZAM Operations, Supply Chain and Services Management Symposium (ANZAM 2015)* (Vol. 1, pp. 1-476). Australian and New Zealand Academy of Management (ANZAM).
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, Article n71. <https://doi.org/10.1136/bmj.n71>
- Perez, J., Díaz, J., Garcia-Martin, J., & Tabuenca, B. (2020). Systematic literature reviews in software engineering—Enhancement of the study selection process using Cohen’s kappa statistic. *Journal of Systems and Software*, 168, Article 110657. <https://doi.org/10.1016/j.jss.2020.110657>
- Purwaningsih, E., Muslikh, M., Suhaeri, S., & Basrowi, B. (2024). Utilizing blockchain technology in enhancing supply chain efficiency and export performance, and its implications on the financial performance of SMEs. *Uncertain Supply Chain Management*, 12, 449-460. <https://doi.org/10.5267/j.uscm.2023.9.007>
- Puspitarini, D., Degeng, I. N. S., Praherdhiono, H., & Suryati, N. (2023). Humanistic Pesantren: Systematic literature review and bibliometric visualization analysis on character, moral, and ethical values. *Pertanika Journal of Social Sciences and Humanities*, 31(2), 465-490. <https://doi.org/10.47836/PJSSH.31.2.01>
- Raza, M., Khalique, M., Khalid, R., Kasuma, J., Ali, W., & Selem, K. M. (2023). Achieving SMEs’ excellence: Scale development of Islamic entrepreneurship from business and spiritual perspectives. *Journal of Islamic Accounting and Business Research*, 16(1), 86-106. <https://doi.org/10.1108/JIABR-02-2023-0060>
- Salaheldeen, M., Battour, M., Nazri, M. A., Ahmad Bustamam, U. S., & Hashim, A. J. C. M. (2023). The perception of success in the halal market: Developing a halal entrepreneurship success scale. *Journal of Islamic Marketing*, 14(3), 799-825. <https://doi.org/10.1108/JIMA-10-2021-0341>
- Shaffril, H. A. M., Samah, A. A., Samsuddin, S. F., & Ali, Z. (2019). Mirror-mirror on the wall, what climate change adaptation strategies are practiced by the Asian’s fishermen of all? *Journal of Cleaner Production*, 232, 104-117. <https://doi.org/10.1016/j.jclepro.2019.05.262>
- Shamseer, L., Moher, D., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., Shekelle, P., Stewart, L. A., & the PRISMA-P Group (2015). Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: Elaboration and explanation. *BMJ*, 349, Article g7647. <https://doi.org/10.1136/bmj.g7647>
- State of the Global Islamic Economy Report 2022*. (2022). Dinar Standard. <https://www.dinarstandard.com/reports/state-of-the-global-islamic-economy-2022>

- The Star. (2021, February 11). *US-based Tyson Foods buys 49% stake of MFM's poultry business for RM420m*. Retrieved December 1, 2023, from <https://www.thestar.com.my/business/business-news/2021/02/11/tyson-foods-investing-in-malayan-flour-mills-poultry-business>
- Traag, V. A., & Waltman, L. (2019). Systematic analysis of agreement between metrics and peer review in the UK REF. *Palgrave Communications*, 5, Article 9. <https://doi.org/10.1057/s41599-019-0233-x>
- Wong, M. S. M. A., Hussin, Z. I., & Moidin, S. (2023). Implementation of Halal logistics in Halal pharmaceutical industry: A study on halal warehouse system in Pharmaniaga Lifescience. *Global Journal Al-Thaqafah*, (Special Issue), 90-103. <https://doi.org/10.7187/GJATSI072023-8>
- Xu, X., Chen, X., Jia, F., Brown, S., Gong, Y., & Xu, Y. (2018). Supply chain finance: A systematic literature review and bibliometric analysis. *International Journal of Production Economics*, 204, 160-173. <https://doi.org/10.1016/j.ijpe.2018.08.003>
- Zainudin, M. I., Hasan, F. H., & Othman, A. K. (2020). Halal brand personality and brand loyalty among millennial modest fashion consumers in Malaysia. *Journal of Islamic Marketing*, 11(6), 1277-1293. <https://doi.org/10.1108/JIMA-10-2018-0187>
- Zulkifli, N., & Rahman, A. A. (2019). Halal cosmetics: External pressures to adopt Halal certification. *Global Journal Al-Thaqafah*, (Special Issue), 19-28. <https://doi.org/10.7187/GJATSI112019-2>



## **Designing Curriculum Framework for Early Childhood Education Based on Thinking of *Al-Ghazālī*: Fuzzy Delphi Analysis**

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### **ABSTRACT**

This study aims to develop an early childhood education curriculum framework rooted in al-Ghazālī's educational philosophy. The research, which employed a mixed exploratory method, explored al-Ghazālī's thinking on early childhood education through document analysis of his work in *Ihyā' 'Ulūm al-Dīn* as well as secondary sources by relevant scholars. A Fuzzy Delphi method involving 25 field experts validated the proposed items in the framework, which covered curriculum elements like aims, objectives, content, teaching strategies, learning activities, and assessment methods. With over 75% consensus, the experts supported the six curriculum elements comprising 58 items. In this analysis, Al-Ghazali demonstrates visionary thinking in the field of educational philosophy, with a specific emphasis on improving Islamic education in the context of child education. He underscores the significance of these elements of the curriculum in nurturing the growth of an exemplary individual who aligns with the divine educational objectives of Islam. This framework presents an early proposition for enhancing existing early childhood education curriculum standards and emphasizing practical student outcomes.

*Keywords:* Al-Ghazālī, curriculum framework, Islamic early childhood education

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### **INTRODUCTION**

Education stands as a fundamental necessity in societal development. Rapid conditions influence the dynamic educational environment in 21<sup>st</sup>-century learning and hence require continuous development (Leng et al., 2023). While efforts have been made to adapt the current curriculum

to these changes, a significant gap exists in integrating comprehensive Islamic educational philosophies within early childhood education frameworks. In alignment with the needs of an evolving society, the curriculum of Islamic education demands critical discourse to accommodate the diverse needs of today's learners (Mughal, 2021). This gap necessitates a critical discourse on Islamic education curricula to address the diverse needs of today's young Muslim learners. Early childhood education, as a preparatory process for children before formal education, needs to be highlighted as the first step in adapting to new challenges. The curriculum for early childhood education in Malaysia is structured through the National Standard Preschool Curriculum, aiming to develop children's potential holistically and comprehensively across various developmental aspects, encompassing physical, emotional, spiritual, intellectual, and social dimensions (Rahman & Noor, 2018). This process is facilitated through a safe learning environment that fosters enjoyable, creative, and meaningful learning experiences. Abu Hamid ibn Muhammad al-Ghazālī, famously known as Al-Ghazālī, a prominent figure in Islamic education, introduced several key concepts about true education. His valuable thoughts became a reference in various disciplines during the golden era of Islamic knowledge, which led to his title of *Hujjat al-Islam* (Nofal, 1993). His educational concepts are methodically analyzed, forming the basis of a curriculum design for early childhood education.

This paper will begin by exploring the current state of early childhood education in Malaysia, pointing out certain gaps in current research, especially in Islamic early childhood. It will then delve into an analysis of al-Ghazali's insight into education and the psychology of children. The study will propose a curriculum framework based on this foundation that integrates the thinking of al-Ghazali with a contemporary curriculum framework. Finally, the paper will conclude with recommendations and future research that will benefit educators and policymakers. This comprehensive examination aims to examine the significance and necessity of integrating al-Ghazālī's educational thought scheme into the contemporary early childhood curriculum frameworks. By synthesizing these elements, the research seeks to offer valuable insights into the creation of a holistic and culturally relevant curriculum framework for early childhood education in Islamic contexts.

### **Problem Statement**

While the structured nature of Malaysia's National Standard Preschool Curriculum provides a solid foundation, there remains a significant gap in integrating comprehensive Islamic educational philosophies that cater to the holistic development of children. Saptri et al. (2021) mentioned that current frameworks primarily focus on broad developmental aspects but often lack a deep integration of spiritual and moral education rooted in Islamic thought. This gap can create a disconnection between the child's early education and cultural and

religious values, potentially affecting their overall development and identity formation. Although the curriculum covers various developmental aspects, it predominantly focuses on secular knowledge with limited emphasis on religious and moral education, resulting in an education system that does not fully address the spiritual needs of Muslim children (Hashim, 2019a). The long-term implications of this curricular gap affect multiple stakeholders: parents struggle to maintain religious and cultural continuity, educators face challenges in delivering holistic education, and communities risk losing their cultural identity across generations. The current curriculum is seen as emphasizing physical, emotional, intellectual, and social development but often treats these areas in isolation rather than as interconnected facets of a child's growth.

These issues have been addressed by numerous private preschools that have implemented their own curricula, integrating their unique values and aspirations (H. Ismail et al., 2019). For instance, a study by Gumindari et al. (2019) found that certain Islamic preschools promote a curriculum combining Islamic educational concepts with Montessori methods. However, this integration may not be suitable from an Islamic education perspective. With the diversity of curricula and approaches used, there is concern that the existing national curriculum may not be effectively implemented for preschool students. The educational aspirations based on the National Education Philosophy may not

be fully realized in Malaysia (Nordin et al., 2021). Furthermore, a critical concern is whether these modules are verified by experts in the field or tested through rigorous research. As Ekawati et al. (2019) suggested, expert validation is crucial for ensuring the feasibility and applicability of educational content, particularly in integrating Islamic values effectively.

In this study, Al-Ghazali's educational philosophy has been examined and reconstructed into Malaysia's contemporary early childhood curriculum framework to address existing gaps and enhance current curriculum standards. This integration focuses on elements of the curriculum framework rooted in Islamic values, ensuring holistic development that prepares children for a balanced and fulfilling life.

## LITERATURE REVIEW

Al-Ghazālī is a prominent figure in Islamic education, extensively discussing the concept of education in his various writings. His ideas on education are prominently presented in the content of his book, *Ihyā' 'Ulūm al-Dīn* (Asari, 1993). Additionally, discussions on education can also be found in other works by Al-Ghazālī, such as *Ayuha al-Walad*, *Fatihah al-Ulum*, *Mizan al-Amal*, and *al-Munqidh min al-Dalal* (Nofal, 1993). In the introductory chapter of *Ihyā' 'Ulūm al-Dīn*, specifically in *Kitab al-'ilm*, Al-Ghazālī offers fundamental explanations of education, including the definition of knowledge, its classification, hierarchy, benefits, and other related aspects (Gil'adi, 1992). His contributions to the field of

education are significant and multifaceted, addressing theoretical and practical dimensions. His works remain relevant for contemporary educational philosophy and pedagogy discussions within Islamic contexts (Sheikh & Ali, 2019).

Al-Ghazālī's insight offers a comprehensive concept and overview of the true education that Muslims should practice today. He outlines a curriculum guide that includes the philosophy, goals, and objectives of genuine education according to Islam (Salaeh et al., 2023). Furthermore, Al-Ghazālī explains the elements of education that can be integrated into the current curriculum. Through his seminal work, *Ihyā' 'Ulūm al-Dīn*, Al-Ghazālī provides recommendations on appropriate methods for educators to use in teaching students (Asari, 1993). Al-Ghazālī, who is also proficient in psychology, is adept at designing a curriculum process tailored to meet the psychological needs of children (Rothman, 2021). His insights remain valuable for developing a holistic and effective educational framework in contemporary Islamic education.

According to al-Ghazālī, the primary purpose of education should be the development of individuals with well-rounded and balanced characters, enabling them to attain happiness and fulfillment in both this life and the afterlife (F. Karim & Al-Ghazali, 2015). Al-Ghazālī identifies two types of happiness for Muslims: (1) temporal happiness in this world and (2) eternal happiness in the afterlife. Quasem (1975) elucidates that temporal

happiness is achieved in two ways. First, through the acquisition of knowledge and moral development, which are divinely bestowed upon humans. Second, through the fulfillment of basic needs such as food and shelter, which require knowledge and skills to obtain. While the pursuit of temporal happiness is essential, it must be coupled with the attainment of knowledge to govern oneself and society effectively. For eternal happiness, al-Ghazālī asserts that it can only be attained by seeking divine forgiveness and blessings and avoiding divine retribution, specifically hellfire. Al-Ghazālī concludes that both types of happiness must be pursued through acquiring knowledge and cultivating a balanced character. In addition, as al-Ghazālī mentioned, education needs to develop a good moral character (F. Karim & Al-Ghazali, 2015). Al-Ghazālī describes character as the inward form of a person. He says a balanced character is achieved by embodying the mean or moderate path in all affairs. Both extremes of character traits are considered blameworthy, whereas the mean represents the optimal and praiseworthy state (Siraj & Arshad, 2009).

Al-Ghazālī's educational philosophy proposes a distinct curriculum content grounded in his pedagogical ideals. By leveraging his hierarchical classification of knowledge and its divisions, the curriculum content begins its formation with an in-depth exploration of his ideas (Barni & Mahdany, 2017). Al-Ghazālī's insight into the concept of *fard 'ayn* underscores the necessity for a curriculum model tailored to a child's developmental stage



and age. Foundational religious tenets, including faith, practical worship, and ethics, are essential components of *fard 'ayn*, necessitating early exposure for children (Al-Ghazali, 2017). Beyond the *fard 'ayn* component, Zarkasyi (1990) advocates for the inclusion of additional elements such as the memorization of selected Quranic verses and hadith, the biography of the Prophet (*Sirah*), and the stories of his companions, as also stated by al-Ghazālī in his *Ihya'*. Meanwhile, *fard kifayah*, as elaborated by al-Ghazālī, encompasses practical sciences that are obligatory for specific communities only. Particular subjects or fields of knowledge do not differentiate these notions but rather by the types of religious obligations about their acquisition, as explained by Bakar (1998). Subjects such as language, mathematics, arts, logical thinking, and sports are also considered essential for children's education within their respective levels. This approach aims to foster a child's growth within a holistic learning framework, as emphasized by authoritative scholars (Hashim, 2019b). Al-Ghazālī's classification of knowledge, viewed as mutually complementary, aims to develop a balanced individual aligned with the stated educational objectives (Ihya & Yani, 2020).

Al-Ghazālī's intricate delineation of four fundamental values, known as *ummahat al-fadhail*, encapsulates his ethical perspective (Mubarak, 2019). These values, wisdom, courage, temperance, and justice, constitute intrinsic facets of human nature, requiring cultivation to maintain balance and prevent

excessiveness (Quasem, 1975; Syamsuddin & Mamat, 2014). Al-Ghazālī stresses a precise progression from virtuous (*fadhilah*) to reprehensible (*radzilah*) characteristics within each of these values as identified by Umaruddin (1996). Al-Ghazālī's analysis of values serves as a guiding framework for educators to scaffold character formation and foster continual growth in children's souls. Al-Ghazālī's value-based framework transcends cultural boundaries, converging within both Islamic and Western character education paradigms. While parallelisms exist, as highlighted by Quasem (1975) there are disparities persist between al-Ghazālī's perspective and Western conceptions of virtue ethics. Ultimately, the universal nature of these values advocated by al-Ghazālī extends their pertinence to all children, fostering a broader discourse on the centralization of virtuous values in education.

In this introductory exploration, the curriculum framework based on al-Ghazālī's thinking discerns two fundamental educational concepts: (1) *Ta'lim* (education) and (2) *tarbiyah* (nurturing), which underpin the analyzed teaching strategies. *Ta'lim*, characterized by knowledge dissemination with a cognitive emphasis, encompasses strategies such as systematic teaching and learning, integrated approaches, memorization methods, playful learning, soul-based learning, lifelong learning, differentiated instruction, and gradual learning (Bashir, 2017; Hashim, 2019b; Yussof, 2010; Zarkasyi, 1990; Zawawi, 2017). Conversely, *tarbiyah* aligns with nurturing and entails value cultivation and

physical care, manifesting within and beyond preschool settings (Sahin, 2018). This concept of nurturing amplifies children's learning experiences, imbuing them with significance and profound understanding (Memon et al., 2021). *Tarbiyah* aims to foster character traits while simultaneously aiding the existing teaching processes. The curriculum framework indicates that *tarbiyah* can be operationalized through strategies such as self-development (*riyadah al-nafs*), habituation (*ta'wid*), peer interaction, adult interaction, teacher-student-relationships (*suhbah*), reinforcement and punishment methods, and exemplar methods (*qudwah*) (Arshad, 2009; Attaran, 2015; Bashir, 2017; Sulaiman, 2014). These strategies remain relevant for contemporary educational practices, such as habituation practices within preschool routines that exemplify virtuous values (Cinantya et al., 2019). The convergence of the *ta'lim* and *tarbiyah* concepts within early childhood education gives rise to the term *ta'dib*, encapsulating a more holistic educational philosophy, as mentioned by Al-Attas (1989), which education should encompass a comprehensive process of nurturing children's potential. Notably, this notion is reinforced using the term *ta'dib* within the educational process described in the study's sample unit by al-Ghazālī's work (Al-Ghazali, 2017). The concept of *ta'dib* presents an innovative educational framework that integrates these two foundational principles of *ta'lim* and *tarbiyah*. This synthesis heralds a transformative paradigm within Islamic

education, wherein educators transcend the conventional role of information dissemination and instead emerge as mentors, fostering the development of virtuous character within their students.

Regarding teaching activities, al-Ghazālī does not explicitly prescribe specific teaching activities to achieve educational goals; scholarship indicates that historical educational practices during his time included teaching activities, games, and pedagogical approaches (Ahsan, 1973; Gil'adi, 1992; Quraishi, 1970; Rosenthal, 2014). The activities mentioned above have become integral to the Islamic educational tradition. Tibawi (1972) also reveals that al-Ghazālī innovatively employed teaching activities, such as chess games and musical singing, in *kuttāb*-level instruction in Islamic education. Based on the examined literature, early childhood educators can engage in activities such as storytelling, prayer, and remembrance sessions (*du'a* and *zikir*), reading, writing, arithmetic, questioning, playing, conducting experiments, and practical activities within the classroom (Barni & Mahdany, 2017; Gil'adi, 1992; Husna & Wasik, 2021; Saptri et al., 2021; Zarkasyi, 1990). Al-Ghazālī emphasizes the importance of making teaching activities enjoyable and fostering children's love for learning and education (Bashir, 2017). A balanced approach to teaching activities is essential during early childhood education to prevent children from becoming disinterested, aligning with al-Ghazālī's assertion that children's hearts should not "die" from monotony (Alkanderi, 2019).

The curriculum framework for early childhood education grounded in al-Ghazālī's philosophy incorporates two assessment methods to evaluate children's developmental stages within the classroom. The assessment methods examined include the concept of *muhasabah* (self-assessment) and continuous observation and admonition by the teacher. *Muhasabah* is defined as self-assessment, wherein Memon et al. (2021) explain it as a reflective process of intentions and activities throughout the learning process. This aligns with Hawkes's (2005) assertion that reflection assists students in identifying positive values to nurture within themselves, a notion congruent with al-Ghazālī's philosophy. To instill a Muslim personality in children, the guidance of teachers is crucial in cultivating the practice of *muhasabah* to enable children to internalize each lesson (El-Moslimany, 2020). The second assessment method, continuous observation and admonition, is paramount in the context of Islamic education from al-Ghazālī's moral-oriented viewpoint, given the importance of removing undesirable traits and habits through ongoing observation and guidance by teachers (Razak et al., 2016). Al-Ghazālī advocates for a systematic approach to admonition, applying it at various stages with an emphasis on compassion and care (Azhari & Mustapa, 2021). This approach focuses on character development rather than humiliation, as it aims to nurture moral values (Roslan et al., 2019). Therefore, educators need to understand children's psychology to effectively utilize admonition

as an educational strategy (Bariyah, 1999). Both assessment approaches are practical and should be implemented simultaneously during teaching sessions with children. Their concurrent use enhances the efficiency of assessing children's developmental progress. In conclusion, while al-Ghazālī's recommended assessment methods emphasize moral and spiritual development, they provide a foundation for comprehensive assessment innovations catering to specific developmental aspects or skills.

## METHODOLOGY

The Fuzzy Delphi Method was used to reach consensus among selected experts on the aims, objectives, content, teaching strategy, activity, and assessment method in designing a curriculum framework based on the thinking of al-Ghazālī in early childhood education. It was introduced by Murray et al. (1985) and Kaufmann and Gupta (1988) and was developed in combination with set fuzzy theory and the Delphi technique. The rationale for applying the fuzzy Delphi method compared to the Delphi technique is that it saves time and costs when handling questionnaires. In the context of curriculum development, the Fuzzy Delphi Method was one of the credibility methodologies as it can effectively process complex multi-dimensional educational concepts, accommodate the natural uncertainty in expert opinions, and provide more refined consensus measurements compared to traditional Delphi methods. This makes it particularly well-suited for developing educational frameworks where precision

in conceptual integration is essential. This method proves particularly valuable in educational framework development because it can handle the inherent complexity and ambiguity in educational planning, especially when integrating classical Islamic philosophy with contemporary educational needs.

A total of 25 experts were selected in this study using purposive sampling. The number of experts selected was acceptable for the Fuzzy Delphi Method (FDM), as suggested by Adler and Ziglio (1996), and a minimum of 10 experts were needed in the study to achieve high uniformity among experts. The expert panel was carefully curated to ensure comprehensive coverage of all crucial aspects of the framework development. These experts have consisted of experts in their fields with extensive experience in curriculum planning, credible practitioners with knowledge and practical experience, and highly contributed to educational reform initiatives. As a result, several selection criteria are determined as follows:

1. Possess a minimum of five years of professional experience in the domains of early childhood education, curriculum development, and Islamic education.
2. Highly involved in policy research, collaborating with relevant stakeholders, and conducting consultations within many research domains.
3. Actively engaged in respective expertise by demonstrating scholarly contribution through publication,

practical innovation, and high involvement with educational institutions or regulatory agencies.

The development of the Fuzzy Delphi Method (FDM) instrument was preceded by a comprehensive literature review on al-Ghazālī's educational philosophy, with a particular focus on the elements of the curriculum framework as articulated in *Ihya' 'Ulum al-Din* and his other works. This review was augmented by secondary literature from authoritative scholars who have extensively studied al-Ghazālī's thoughts, especially his educational thought and philosophy. The literature review phase involved a systematic analysis of classical Arabic texts and contemporary interpretations to authentically represent al-Ghazālī's educational principles.

The Fuzzy Delphi Method (FDM) instrument encompasses six elements of the early childhood education curriculum framework: (1) aims of education, (2) educational objectives, (3) curriculum content, (4) teaching and learning strategies, and (5) learning activities and (6) assessments. These elements were selected based on the recommendations of Ornstein and Hunkins (2017), ensuring systematic coverage of all essential aspects of curriculum design while maintaining alignment with contemporary educational theory. Following the literature review and validation by content experts, 58 items were identified within these six curriculum elements.

The instrument employed the Fuzzy Delphi Questionnaire, featuring 58 items rated on a five-point fuzzy linguistic scale:

strongly disagree, disagree, neutral, agree, and strongly agree. Experts were provided with the questionnaire and asked to respond according to their level of agreement. They were also given the option to highlight or modify any items they found misleading. After completing the questionnaire, the experts returned the instrument to the researchers for data analysis.

The Fuzzy Delphi Method was collected and analyzed using the following steps below:

1. Determine the number of experts involved, i.e., between 10–20 respondents (Adler & Ziglio, 1996). This study chose to get a consensus of 25 experts.
2. Determining the Linguistic Scale based on the triangular fuzzy number. Triangular Fuzzy Numbers represent values as (m1, m2, m3), where m1 is the minimum value, m2 is the most logical value, and m3 is the maximum value. This type of fuzzy number is used to create a Fuzzy scale akin to a Likert scale, which translates linguistic variables into fuzzy numbers. The levels of the Fuzzy scale must be in odd numbers, as this enhances the accuracy of the data. The higher the Fuzzy scale, the more precise the data obtained, as explained in Figure 1.
3. All data is scheduled to get average values (m1, m2, m3), i.e., minimum, municipal and maximum values.
4. Determine the distance between the

numbers to determine the threshold value by using the following formula:

$$d(\bar{m}, \bar{n}) = \sqrt{\frac{1}{3}[(m1 - n1)^2 + (m2 - n2)^2 + (m3 - n3)^2]}$$

This study collected and analyzed data using the Fuzzy Delphi technique. Experts were provided with an instrument where each item was represented on a Likert scale along with a blank space for comments and suggestions. The Likert scale data obtained were analyzed using Excel. All data were converted into Triangular Fuzzy Numbers. A five-point Fuzzy scale was utilized in this study.

The advantages of the Fuzzy Delphi Method include (1) saving time on the questionnaire process, (2) being cost-effective, (3) reducing the number of surveys needed while increasing the response rate, (4) allowing experts to fully express their opinions, thus ensuring the completeness and consistency of their input, and (5) reducing inevitable fuzziness in the study. Moreover, this method guarantees the

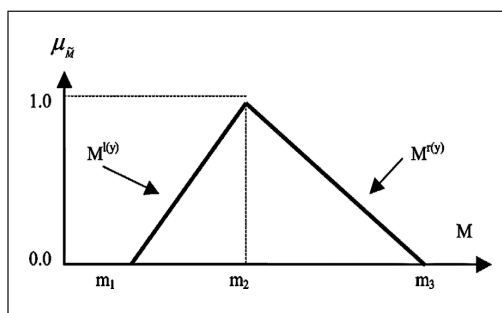


Figure 1. Triangular fuzzy number

accuracy of the expert panels’ opinions by eliciting genuine responses from them (Yaakob et al., 2023).

However, it is important to acknowledge the potential limitations of this approach. Expert selection may introduce biases that could influence the results. The chosen experts might not fully represent the perspectives within the context of Islamic early childhood education because of the difference in specialization for every expert. Therefore, the generalizability of the findings may be limited, as the study focuses on a curriculum framework development based on al-Ghazali’s thinking in the early childhood education scenario. The applicability of the results to other educational systems may require further research. Furthermore, while valuable, reliance on expert opinions may not capture the full complexity of implementing curriculum changes in real-world educational settings.

## RESULTS

In this curriculum framework for early childhood education based on *al-Ghazālī’s*

educational ideas, these 58 items were resolved to six elements of the curriculum framework given to the experts, which are stated in Table 1.

The curriculum framework for early childhood education based on the philosophy of al-Ghazālī yields several fundamental components within a structure proposed by Ornstein and Hunkins (2017). The consensus levels demonstrate several noteworthy patterns that reveal important insights about the integration of al-Ghazālī’s educational philosophy into contemporary early childhood education. Most striking is the exceptionally high consensus (98%) achieved for educational goals, suggesting strong expert agreement on the fundamental principles that should guide early childhood education from an Islamic perspective. This is closely followed by objectives at 91%, indicating that experts found the practical translation of al-Ghazālī’s philosophical principles into concrete educational targets both feasible and appropriate. The content categories reveal an intriguing hierarchical pattern: Values secured the highest consensus (93%), followed by skills

Table 1  
*Expert consensus on elements of Al-Ghazālī’s curriculum framework*

No	Element	Threshold value item	Percentage consensus (%)
1	Goal	0.14	98
2	Objectives	0.16	91
4	Content (Knowledge)	0.16	77
5	Content (Skills)	0.19	88
6	Content (Values)	0.18	93
7	Strategies	0.18	87
7	Activities	0.17	93
8	Assessment	0.20	96

(88%), while knowledge content received a relatively lower consensus (77%). This distribution notably reflects al-Ghazālī's educational hierarchy, where moral and spiritual development (*tahdhīb al-akhlāq*) takes precedence over mere knowledge acquisition. The implementation elements—teaching strategies (87%), activities (93%), and assessment (96%)—all achieved robust consensus levels, suggesting that experts strongly endorse the proposed practical approaches for translating al-Ghazālī's educational philosophy into contemporary classroom practices. The particularly high consensus on assessment methods (96%) indicates strong agreement on evaluation approaches that successfully bridge classical Islamic educational principles with modern pedagogical requirements.

Upon examination of the table above, these six elements meet the criteria for the fuzzy Delphi technique, with construct item values below 0.2. Moreover, the percentage agreement values based on all the proposed curriculum framework elements attain a consensus percentage exceeding 75% of expert consensus, rendering this expert consensus valid, as cited by Chu and Hwang (2008). The proposed curriculum framework aligns with al-Ghazālī's educational philosophy, guiding the design and implementation of early childhood education curricula in line with his holistic approach.

All items that constituted the consensus evaluation by the expert panel within the proposed curriculum elements are presented in Figure 2. This detailed

documentation provides transparency and facilitates a comprehensive understanding of the evaluation process performed by the curriculum framework components. The inclusion of these detailed evaluations in the diagram strengthens the thoroughness and academic integrity of the study, allowing readers to delve into the subtle nuances that guided the experts' consensus-building efforts. This practice aligns with the scholarly tradition of promoting transparency and accountability in research while enhancing the discourse on curriculum development within early childhood education.

## DISCUSSION

The discussion section aims to thoroughly examine and interpret the research results. This study analyzed the impact of an early childhood education curriculum influenced by al-Ghazālī, who emphasizes holistic development, including spiritual, moral, intellectual, and physical aspects. Integrating Al-Ghazali's insights into modern curricula can significantly enhance the moral and spiritual dimensions of education.

### Implications for Theory and Practice

The primary aim of education based on al-Ghazali's philosophy is attaining happiness in this world and the hereafter, alongside creating a balanced and perfect individual (Zarkasyi, 1990). This dual focus on spiritual and worldly success aligns well with the objectives of modern education systems, including Malaysia. National Education Philosophy, as constructed in the early 70s, emphasizes producing well-rounded

<b>AIM</b>	<ol style="list-style-type: none"> <li>1. Attainment of happiness in word and hereafter</li> <li>2. A balanced and perfect individual</li> </ol>	
<b>OBJECTIVES</b>	<ol style="list-style-type: none"> <li>1. Acquiring moral and values</li> <li>2. Exposure to principles and tenets of religion</li> <li>3. Achieving balance in character formation</li> <li>4. Purification of soul</li> <li>5. Attainment balance of conduct within human soul</li> <li>6. A well rounded of good society</li> </ol>	
<b>CONTENT</b>	<ol style="list-style-type: none"> <li>1. Tenet of faith</li> <li>2. Ethics</li> <li>3. Practical faith</li> <li>4. Prophet's biography</li> <li>5. Sports</li> <li>6. Arts</li> <li>7. Language</li> <li>8. Critical Thinking</li> </ol>	<ol style="list-style-type: none"> <li>1. Play skills</li> <li>2. Spiritual intelligence</li> <li>3. Emotional intelligence</li> <li>4. Communication skills</li> <li>5. Literacy skills</li> <li>6. Numeracy skills</li> <li>7. Locomotor skills</li> <li>8. Collaborative skills</li> <li>9. Thinking skills</li> </ol>
		<ol style="list-style-type: none"> <li>1. Wisdom</li> <li>2. Courage</li> <li>3. Temperance</li> <li>4. Justice</li> </ol>
<b>STRATEGY</b>	<ol style="list-style-type: none"> <li>1. Exemplary (qudwah)</li> <li>2. Companionship (suhbah)</li> <li>3. Play</li> <li>4. Integrate approach</li> <li>5. Peer interaction</li> <li>6. Adult interaction</li> <li>7. Soul purification</li> <li>8. Self discipline</li> <li>9. Soul based learning</li> <li>10. Gradual learning</li> <li>11. Lifelong learning</li> <li>12. Systematic pedagogy</li> <li>13. Reward and punishment</li> <li>14. Habituation</li> <li>15. Differentiated instruction</li> <li>16. Memorization</li> </ol>	
<b>ACTIVITY</b>	<ol style="list-style-type: none"> <li>1. Pray and remembrance</li> <li>2. Playing</li> <li>3. Storytelling</li> <li>4. Experiments</li> <li>5. Nature interaction</li> <li>6. Practical activities</li> <li>7. Question and answer</li> <li>8. Reading, writing, arithmetics</li> </ol>	
<b>ASSESSMENT</b>	<ol style="list-style-type: none"> <li>1. Self reflection - muhasabah</li> <li>2. Continuous observation and feedback</li> </ol>	

Figure 2. Items of Al-Ghazālī's curriculum elements proposed

individuals with balanced traits as Malaysian citizens' character (N. Ismail et al., 2021). However, this framework introduces other perspectives on achieving these goals by integrating moral and spiritual development from an early age.

Al-Ghazali's educational objectives include acquiring moral values, exposure to religious principles, achieving balance in character formation, purification of the soul, and the formation of a good society (Sheikh

& Ali, 2019). These objectives align with the aims of Malaysia's education system, which already incorporates many of these themes. However, al-Ghazali's framework proposes a more explicit and structured approach to integrating these elements into early childhood education. This approach ensures that children are exposed to ethical and spiritual teaching in a developmentally appropriate and engaging manner. In the current era of digitalization and artificial



intelligence, children face new challenges that necessitate a greater emphasis on ethical considerations in teaching and learning sessions. Educators play a crucial role in helping children focus on attitude, moral, and spiritual development as central aspects of the educational process (Barni & Mahdany, 2017).

The curriculum content, derived from the fuzzy Delphi analysis, includes tenets of faith, ethics, practical faith, the Prophet's biography, arts, language, and critical thinking. Additionally, skills such as play, spiritual intelligence, emotional intelligence, communication, literacy, numeracy, locomotor, collaborative, and thinking skills are emphasized in Figure 2. This curriculum framework offers a more integrated and cohesive approach. For instance, including the Prophet's biography as a core component provides children with role models and moral lessons woven into the fabric of their daily learning experiences. Al-Ghazālī's redefinition of *fard 'ayn* emphasizes that all subjects of knowledge must be tailored to the importance and suitability of the child's age and interests as they grow up (Shahzadi et al., 2021; Sheikh & Ali, 2019)

The implementation strategies proposed by al-Ghazālī's framework amplify *ta'dib* as the comprehensive essence of education (Zawawi, 2017). Education must support physical perspectives, such as locomotor skills, as well as cognitive and spiritual perspectives, to develop balanced character. Al-Attas defines education in terms of *ta'dib* as the inculcation of *adab* in man itself, which means understanding the

proper order and place of things (Syarboini, 2019). *Ta'dib* encompasses the entire educational process, including *tarbiyah* (nurturing), which involves methods like the exemplary approach and peer and adult interaction, and *ta'lim* (transmission of knowledge), which includes gradual learning and memorization strategies. This integrated framework ensures that educators are not only transmitters of knowledge but also role models demonstrating good morals and conduct (Wartini, 2016).

Al-Ghazālī's insights provide a robust psychological foundation for teaching and learning concepts in early childhood education, enabling Malaysian education to progress rapidly in 21st-century learning. Concepts such as gradual learning, differentiated instruction, and the incorporation of play should be foundational elements in children's curricula to support their innate disposition (*fitrah*). While teachers have the freedom to choose various teaching aids, strategies, and technological tools, the primary focus in children's education must remain on nurturing their souls, aligning with al-Ghazālī's educational objectives (Noor et al., 2021).

Besides, al-Ghazali's framework emphasizes self-reflection (*muhasabah*) and continuous observation in collecting responses to children's understanding. This assessment approach encourages children to self-evaluate and receive ongoing feedback from teachers, helping them to develop a deeper understanding of their own learning processes and moral

development (Mutmainah, 2021). This method stands in contrast to traditional assessment methods that often focus solely on academic achievement, providing a more holistic view of a child's development.

Comparing al-Ghazali's framework with contemporary early childhood education frameworks reveals several unique contributions. Al-Ghazali's framework emphasizes spiritual and moral development, often less pronounced in modern curricula (S. R. A. Karim et al., 2021). Additionally, the structured and integrated approach to teaching these values through various methods provides a more cohesive learning experience (Saptri et al., 2021). This holistic approach ensures that children receive a well-rounded education that prepares them for both worldly and spiritual success. Recent studies by modern educational researchers have shed light on Al-Ghazali's approach to learning, revealing striking similarities between his ideas and contemporary educational theories. Al-Ghazali's work has emerged as a key reference point for integrating new concepts like self-regulated learning into Islamic education (Shahzadi et al., 2021). The Islamization approach employed by Al-Ghazali in evaluating learning content has become a fundamental principle in Islamic educational philosophy (Gyagenda, 2021). This approach encourages students to excel in various fields while staying true to the essential objectives of Islamic education. By examining Al-Ghazali's ideas, one can see that his centuries-old insights continue to shape and inform current

educational practices, especially within Islamic education contexts.

This framework offers valuable aspirations for Islamic early childhood education by bridging traditional wisdom with modern educational practices. The emphasis on integration within this curriculum facilitates a seamless transition, avoiding a dualistic approach to education, as Mustamin and Mulawarman (2010) suggested. This framework also serves as a practical suggestion by Al-Attas (1989), Hashim (1999), and Arshad (2002) for the Islamization of the curriculum, a concept that has been discussed since the 1970s. However, implementing this framework presents challenges; teachers must deeply understand al-Ghazālī's educational views and actively analyze modern child learning theories to effectively practice in preschool settings. This training and development process is time-consuming and requires numerous grounded studies to support the framework.

## CONCLUSION

This study highlights the importance of fostering holistic development in early childhood education by incorporating al-Ghazālī's educational philosophy. The curriculum framework addresses the physical, emotional, spiritual, intellectual, and social dimensions of children's growth, promoting well-rounded development. Using the Fuzzy Delphi Method ensures expert consensus, adding robustness and credibility to the framework. This research may benefit educators, curriculum

developers, policymakers, and educational institutions by providing a framework that supports holistic development and culturally relevant education. Future research should focus on testing the framework in real-world settings to see how well it works in different cultural contexts. It should also continue exploring how other classical Islamic educational philosophies can be blended into modern curriculum. By connecting classical Islamic ideas with today's educational needs, this study opens for new innovations in Islamic education, helping to keep it relevant in ever-changing curriculum trends.

### **Limitations and Recommendations for Future Research**

While this study provides valuable insights, it is important to acknowledge its limitations. While valuable, reliance on expert opinions through the Fuzzy Delphi Method may introduce certain biases. Depending on expert opinions, while advantageous for fostering a structured consensus, introduces inherent subjectivity and potential biases. Furthermore, while the composition of the expert panel may meet numerical adequacy, it may not adequately represent the diverse perspectives within the Islamic educational school of thought. FDM's intrinsic preference for consensus can marginalize minority viewpoints, which may offer valuable insights.

The findings advocate for a balance of nurturing and education, as seen in Malaysia's National Childcare and Education Policy. This research suggests a need for revisitation incorporating Islamic educational principles

and modern educational standards. Although this policy and curriculum are inspired by al-Ghazali's development, they need to be elaborated by implementing six different curriculum elements to fill certain gaps in Islamic early childhood education. This may involve creating new guidelines for Islamic preschools or integrating Islamic values more broadly into national early childhood education standards.

A comprehensive teaching module is essential for effective implementation, ensuring educators have the tools to succeed and laying the foundation for future research into al-Ghazālī's educational philosophy in preschool settings. Educators and school administrators suggested undergoing specialized training to effectively implement this integrated approach. This could involve developing professional development programs that bridge traditional Islamic educational methods with contemporary pedagogical practices. Schools may need to adapt their daily routines and learning environments to better reflect the holistic nature of al-Ghazālī's educational philosophy, potentially including more time for reflection, character-building activities, and spiritually oriented lessons in a fun approach.

Future research also suggests that this study can be further developed by analyzing other Islamic education scholars, such as Ibn Sina, Ibn Jama'ah and others, to incorporate these scholars' educational philosophy into the curriculum framework. This research can broaden future research into integration or differentiation and adapt to modern

educational development to ensure Islamic education is relevant in today's challenging education.

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## REFERENCES

- Adler, M., & Ziglio, E. (1996). *Gazing into the oracle: The Delphi method and its application to social policy and public health* (Illustrated ed.). Jessica Kingsley Publishers.
- Ahsan, M. M. (1973). *Social life under the Abbasids*. University of London.
- Al-Attas, S. M. N. (1989). *The concept of education in Islam*. International Institute of Islamic Thought and Civilization (ISTAC).
- Al-Ghazali, A. H. (2017). *Al-Ghazali on disciplining the soul and on breaking the two desires: Books XXII and XXIII of the Revival of the Religious Sciences* (T. J. Winter, Trans.). Islamic Texts Society.
- Alkanderi, L. (2019). *Al-Ghazali's model of the master-pupil relationship applied to educational relationships within the Islamic family* [Unpublished doctoral dissertation]. The Pennsylvania State University.
- Arshad, A. M. (2002). Five key terms in Al-Ghazali's child educational theory: An example of Islamization of contemporary knowledge. *Al-Shajarah*, 7(1), 103-134.
- Arshad, A. M. (2009). *Developing a curriculum content for children's character development based on Tahdhib Al-Akhlaq Wa Tathir Al-A'raq and Ihya' 'ulūm Al-Din*. Universiti Malaya.
- Asari, H. (1993). *The educational thought of Al-Ghazali theory and practice*. McGill University.
- Attaran, M. (2015). Moral education, habituation, and divine assistance in view of Ghazali. *Journal of Research on Christian Education*, 24(1), 43-51. <https://doi.org/10.1080/10656219.2015.1008083>
- Azhari, D. S., & Mustapa. (2021). Konsep Pendidikan Islam menurut Al-Ghazali [Concept of education in Islam according to Al-Ghazali]. *Jurnal Review Pendidikan dan Pengajaran*, 4(2), 271-278. <https://doi.org/10.31004/jrpp.v4i2.2865>
- Bakar, O. (1998). *Classification of knowledge in Islam: A study in Islamic philosophies of science*. Islamic Texts Society.
- Bariyah, K. (1999). *Falsafah dan konsep pendidikan menurut Imam Al-Ghazali* [Philosophy and educational concepts according to Imam Al-Ghazali] [Unpublished master's thesis]. Universiti Malaya.
- Barni, M., & Mahdany, D. (2017). Al Ghazālī's thoughts on Islamic education curriculum. *Dinamika Ilmu*, 17(2), 251-260. <https://doi.org/10.21093/di.v17i2.921>
- Bashir, S. (2017). Al-Ghazali's educational philosophy and its relevance on contemporary education system in India. *The Communications*, 25(1), 94-103.
- Chu, H. C., & Hwang, G. J. (2008). A Delphi-based approach to developing expert systems with the cooperation of multiple experts. *Expert Systems with Applications*, 34(4), 2826-2840. <https://doi.org/10.1016/j.eswa.2007.05.034>
- Cinantya, C., Suriasyah, A., Asniwati, & Aslamiah. (2019). The strategy of religious-based character

- education in early childhood education. *International Journal of Innovation, Creativity and Change*, 5(5), 174-189.
- Ekawati, T., Anggoro, B. S., & Komarudin. (2019). Pengembangan modul pembelajaran Matematika pada materi statistika terintegrasi nilai-nilai keislaman [Mathematical modules in statistical material integrated with developed Islamic values]. *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, 8(1), 184-192. <https://doi.org/10.24127/ajpm.v8i1.1826>
- El-Moslimany, A. (2020). *Teaching children: A moral, spiritual, and holistic approach to educational development*. International Institute of Islamic Thought (IIIT).
- Gil'adi, A. (1992). *Children of Islam: Concepts of childhood in Medieval Muslim society*. Palgrave Macmillan. <https://doi.org/10.1057/9780230378476>
- Gumiandari, S., Nafi'a, I., & Jamaluddin, D. (2019). Criticizing Montessori's method of early childhood education using Islamic psychology perspective. *Jurnal Pendidikan Islam*, 5(2), 133-148. <https://doi.org/10.15575/jpi.v5i2.5835>
- Gyagenda, A. (2021). The relevance of Al-Ghazali's educational views on the contemporary system of Muslim education: Focus on Islamic Education in Uganda. *Interdisciplinary Journal of Education*, 4(1), 1-12. <https://doi.org/10.53449/ije.v4i1.149>
- Hashim, R. (1999). Islamization of the curriculum. *American Journal of Islam and Society*, 16(2), 27-43. <https://doi.org/10.35632/ajis.v16i2.2127>
- Hashim, R. (2019a). *Falsafah pendidikan Islam pada era Revolusi Industri 4 (RI 4.0): Cabaran dan cadangan* [Islamic educational philosophy in the era of Industrial Revolution 4 (IR 4.0): Challenges and suggestions] (Paper presentation). *Proceedings of the International Conference on Teacher Education 2019*. [https://www.researchgate.net/profile/Siti-Moksin/publication/369120020\\_Kertas\\_Kerja\\_12\\_Nov\\_19/links/640b1a18315dfb4ccea01/Kertas-Kerja-12-Nov-19.pdf](https://www.researchgate.net/profile/Siti-Moksin/publication/369120020_Kertas_Kerja_12_Nov_19/links/640b1a18315dfb4ccea01/Kertas-Kerja-12-Nov-19.pdf)
- Hashim, R. (2019b). *Towards an Islamic curriculum: Principles and issues*. IIUM Press.
- Hawkes, N. (2005). *Does teaching values improve the quality of education in primary schools? – A study about the impact of introducing values education in primary school*. University of Oxford.
- Husna, H., & Wasik, A. (2021). Mahabbah Al-Ghozali sebagai model pendidikan dan pengasuhan anak [Mahabbah Al-Ghozali as a model of education and child care]. *Edukasi: The Journal of Educational Research*, 1(1), 42-57. <https://doi.org/10.57032/edukasi.v1i1.31>
- Ihya, B., & Yani, Y. I. (2020). Pembagian ilmu menurut Al-Ghazali. *Al-Fikra: Jurnal Ilmiah Keislaman*, 19(2), 180-198.
- Ismail, H., Abdul, M. A., & Mohamad, I. (2019). The effect of Islamic visual art education on social development of preschool children. *Jurnal Pendidikan Awal Kanak-Kanak Kebangsaan*, 8, 1-7. <https://doi.org/10.37134/jpak.vol8.1.2019>
- Ismail, N., Aziz, K. N. A, M., Arsani, Z., & Harun, M. H. (2021). National education philosophy: A review of its application in Malaysia's education system. *ZAHRA: Research and Thought Elementary School of Islam Journal*, 2(2), 99-111. <https://doi.org/10.37812/zahra.v2i2.240>
- Karim, F., & Al-Ghazali, A. H. (2015). *Essential Ihya' 'Ulum Al-Din- Volume 3: The Revival of the Religious Sciences*. Islamic Book Trust.
- Karim, S. R. A., Ismail, H., & Burhan, N. M. (2021). Teori pendidikan al-Ghazali ke arah pembelajaran sepanjang hayat menurut Islam [Al-Ghazali's education theory towards islamic lifelong learning]. *Jurnal Sultan Alauddin Sulaiman Shah*, 8(1), 69-83.

- Kaufmann, A., & Gupta, M. M. (1988). *Fuzzy mathematical models in engineering and management science*. Elsevier Science Publishers.
- Leng, A. P. W., Mustafa, M. C., & Jamil, M. R. M. (2023). Designing the integrated thematic preschool stream module. *Jurnal Pendidikan Awal Kanak-Kanak Kebangsaan*, 12(1), 19-34. <https://doi.org/10.37134/jpak.vol12.1.3.2023>
- Memon, N. A., Alhashmi, M., & Abdalla, M. (2021). *Curriculum renewal for Islamic Education: critical perspectives on teaching Islam in primary and secondary schools*. Taylor & Francis. <https://doi.org/10.4324/9780429276811>
- Mubarak, Z. (2019). *Al-Akhlaq 'inda al-Ghazālī* [The concept of *akhlaq* according to Al-Ghazali]. *Wakalah al-Sahafah al-Arabiyyah*.
- Mughal, M. J. (2021). Islamic education in Malaysia: A critical analysis of its evolution and relevance. *Al-Qalam*, 1, 261-281.
- Murray, T. J., Pipino, L. L., & van Gigch, J. P. (1985). A pilot study of fuzzy set modification of Delphi. *Human System Management*, 5(1), 76-80. <https://doi.org/10.3233/HSM-1985-5111>
- Mustamin, M. H., & Mulawarman, U. (2010). *Dualisme dalam pendidikan dan pengaruhnya terhadap pembentukan nilai dan identiti pelajar* [Dualism in education and its influence on the formation of students' values and identity] (Paper presentation). *Proceedings of The 5th ISDEV International Graduate Workshop (INGRAW 2010)*. [https://www.researchgate.net/publication/336303571\\_DUALISME\\_DALAM\\_PENDIDIKAN\\_DAN\\_PENGARUHNYA\\_TERHADAP\\_PEMBENTUKAN\\_NILAI\\_DAN\\_IDENTITI\\_PELAJAR\\_Jointly\\_Organized\\_by\\_Centre\\_for\\_Islamic\\_Development\\_Management\\_Studies\\_ISDEV\\_and\\_Institute\\_of\\_Postgraduate\\_Stu](https://www.researchgate.net/publication/336303571_DUALISME_DALAM_PENDIDIKAN_DAN_PENGARUHNYA_TERHADAP_PEMBENTUKAN_NILAI_DAN_IDENTITI_PELAJAR_Jointly_Organized_by_Centre_for_Islamic_Development_Management_Studies_ISDEV_and_Institute_of_Postgraduate_Stu)
- Mutmainah. (2021). Metode muhasabah: Analisis pendekatan psikologi sufistik perspektif Al-Ghazali [Muhasabah method: Analysis of Sufism psychological approach from al-Ghazali's perspective]. *SYAIKHUNA: Jurnal Pendidikan dan Pranata Islam STAI Syichona Moh. Cholil Bangkalan*, 12(1), 41-51.
- Nofal, N. (1993). Al-Ghazali. *Prospects: The Quarterly Review Of Comparative Education*, XXIII(3/4), 519-542. <https://doi.org/10.1007/BF02195133>
- Noor, N. E. M., Kasim, T. S. A. T., & Md. Yusoff, Y. (2021). Peranan guru dalam pelaksanaan e-pembelajaran pendidikan Islam menurut perspektif Al-Ghazali [The role of teachers in the implementation of e-learning in Islamic education according to al-Ghazali's perspective]. *Journal of Islamic Educational Research*, 6, 52-63. <https://doi.org/10.22452/jier.vol6no2021.4>
- Nordin, N., Daoh, M., & Tazli, U. N. A. (2021). Pendidikan karakter dalam pendidikan awal kanak-kanak: Satu sorotan [Character education in early childhood education: A review]. *Selangor Humaniora Review*, 4(1), 188-199.
- Ornstein, A. C., & Hunkins, F. P. (2017). *Curriculum: Foundations, principles and issues*. Pearson Education.
- Quasem, M. A. (1975). *The ethics of Al-Ghazali: A composite ethics in Islam*. Quasem.
- Quraishi, M. A. (1970). *Some aspects of Muslim education*. Centre of Advanced Study in Education, Faculty of Education and Psychology.
- Rahman, M. N. A., & Noor, W. N. B. W. M. (2018). Pelaksanaan kurikulum standard prasekolah kebangsaan semakan 2017: Retrospeksi guru [Implementation of the 2017 revised national preschool curriculum: Teachers' retrospection]. *Jurnal Kepimpinan Pendidikan*, 5(3), 59-71.
- Razak, S. R. B. A., Hamzah, H. B., & Rashed, Z. N. B. (2016). Cabaran guru Pendidikan Islam dalam pembentukan akhlak pelajar [The challenges faced by Islamic education teachers in the

- formation of students' behaviour]. *Journal of Science and Humanities*, 13(4), 100-110.
- Rosenthal, F. (2014). *Man versus society in Medieval Islam* (D. Gutas, Ed.). Brill. <https://doi.org/10.1163/9789004270893>
- Roslan, S. H., Zuhlalmi, N. N., & Jasmi, K. A. (2019, August 18). *Pusat asuhan anak menurut perspektif Islam* [Childcare center in Islamic view] [Paper presentation]. Seminar Institusi Islam 2019, Kuala Lumpur, Malaysia.
- Rothman, A. (2021). *Developing a model of Islamic psychology and psychotherapy: Islamic theology and contemporary understandings of psychology*. Taylor & Francis. <https://doi.org/10.4324/9781003104377>
- Sahin, A. (2018). Critical issues in Islamic education studies: Rethinking Islamic and western liberal secular values of education. *Religions*, 9(11), Article 335. <https://doi.org/10.3390/rel9110335>
- Salaeh, A., Saha, N., Khair, N., Djabir, D. A., & Hamed, P. K. (2023). Character education concepts based on Al-Ghazali's perspective in Ihya' Ulumuddin. *Southeast Asian Journal of Islamic Education*, 5(2), 231-241. <https://doi.org/10.21093/sajie.v5i2.6398>
- Saptri, N. B., Satari, N. A., & Mohamed, S. (2021). Exploring learning activities in teaching Islamic education in preschool classroom. *International Journal of Academic Research in Business and Social Sciences*, 11(2), 717-726. <https://doi.org/10.6007/ijarbs/v11-i2/8442>
- Shahzadi, M., Awan, T. H., & Irfan, F. (2021). Self-regulate learning and Al-Ghazali's theory of education. *South Asian Journal of Social Sciences & Humanities*, 2(2), 172-180. <https://doi.org/10.48165/sajssh.2021.2214>
- Sheikh, S. U., & Ali, M. A. (2019). Al-Ghazali's aims and objectives of Islamic education. *Journal of Education and Educational Development*, 6(1), 111-125.
- Siraj, S., & Arshad, A. M. (2009). Ibn Miskawayh and Al-Ghazali viewpoints on children's character development and education. In N. R. Sharma, A. K. Kalia, & A. Yadava (Eds.), *Psychology of education* (pp. 53-72). Global Vision Publishing House.
- Sulaiman, A. M. (2014). *Peranan guru Pendidikan Islam dalam pembedakan akhlak murid dari aspek hubungan guru-murid berasaskan Abu Talib Al-Makki (w.386H/996M)* [The roles of Islamic education teachers in formation of pupils' character in terms from master-pupil relationship aspect based on Abu Talib Al-Makki]. Universiti Malaya.
- Syamsuddin, Z., & Mamat, W. H. W. (2014). Perbandingan pemikiran konsep Akhlak Al-Ghazali dan Ibn Sina dalam aspek intelek [A comparison of al-Ghazali's and ibn Miskawayh's ethical concepts in the aspect of intellect]. *The Online Journal of Islamic Education*, 2(2), 107-119.
- Syarboini, M. (2019). Konsep ta'dib anak menurut Muhammad Naquib Al-Attas [The concept of ta'dib according to Muhammad Naquib Al-Attas]. *Jurnal Saree*, 1(1), 70-84.
- Tibawi, A. L. (1972). *Islamic education: Its traditions and modernization into the Arab National systems* (illustrate). Luzac.
- Umaruddin, M. (1996). *The ethical philosophy of Al-Ghazzali*. Adam Publishers.
- Wartini, A. (2016). Education character in view of Al-Ghazali and its relevance with the education character in Indonesia. *Ta'dib*, 20(2), 293-310. <https://doi.org/10.19109/td.v20i2.222>
- Yaakob, M. F. M., Nawi, A., Yusof, M. R., Fauzee, M. S. O., Awang, H., Khun-Inkeeree, H., Pozin, M. A. A., & Habibi, A. (2023). A quest for experts' consensus on the geo-education module using fuzzy Delphi analysis. *Universal Journal of Educational Research*, 8(7), 3189-3203. <https://doi.org/10.13189/ujer.2020.080748>

- Yussof, A. S. (2010). *Idea-idea pendidikan berkesan al-Ghazali dan Konfusius* [Educational philosophies of Al-Ghazali and Confucius]. Penerbit Universiti Kebangsaan Malaysia.
- Zarkasyi, H. F. (1990). *Pemikiran Al-Ghazali tentang pendidikan* [The concept of education based on Al-Ghazzali's thought]. Dewan Bahasa dan Pustaka.
- Zawawi, M. H. A. (2017). Ta'dib and the concept of the perfect man: A Ghazalian-Attassian inquiry. *Jurnal Qalbu*, 3, 63-103.



## **Poverty and its Risk Factors for the Northeastern Wetland Region of Bangladesh**

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### **ABSTRACT**

One of the main challenges facing developing countries is poverty, which is more complicated in rural areas like the wetland part of Bangladesh. That is why development policies based on national-level research occasionally fall short of resolving poverty in rural areas. So, the current study's objectives are to estimate poverty and determine its risk factors for the northeastern wetland region of Bangladesh. This study used data from 2340 households collected by a research project sponsored by the GARE Program, Ministry of Education, GoB. The Cost of Basic Needs (CBN) method and logistic regression were applied to estimate poverty and to extract the potential risk factors, respectively. This study has also performed a bivariate analysis to identify the covariates for the multivariate model. According to the CBN method, 25% of the households lie below the lower poverty line (LPL) and 55% below the upper poverty line (UPL). The findings of the Binary Multiple Logistic Regression (BMLR) model show that geographical region, household size, religion, occupation, micro-credit status, NGO membership, per capita income, agricultural land, electricity connection in the household, and livestock ownership are the significant ( $p < 0.05$ ) risk factors of poverty based on LPL. On the other hand, geographical regions, household size, age, religion, micro-credit status, per capita income, agricultural land, and electricity connection in the household are the significant ( $p < 0.05$ ) risk factors of poverty based on UPL. The factors found in this study may be helpful in the development of strategies and policies aimed at reducing poverty among Bangladesh's wetland populations.

*Keywords:* Bangladesh, CBN method, logistic regression, poverty, risk factors

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### **INTRODUCTION**

Poverty is a socio-economic issue that persistently exists in society. For the past few decades, it has been a global concern. Poverty is typically defined as a person's consumption or income level falling below

a particular threshold required to meet basic needs (Bhuiya et al., 2007). People, families, and groups are considered in poverty when they lack the means to follow customs, engage in customary activities, or have the amenities and living arrangements generally accepted or encouraged in the societies to which they belong (Townsend, 1979). The World Bank (2000) stated that “poverty is pronounced deprivation in well-being” (as cited by Haughton & Khandker, 2009). There is much debate regarding what contributes to human well-being. A person’s ability to obtain a particular type of goods or services, such as adequate food, shelter, health care, and educational opportunities, indicates their level of well-being. Sen (1987) provided a thorough framework for conceptualizing human well-being and poverty. He contends that a person’s participation in social activities determines their welfare and that a lack of skills leads to poverty. In general, poverty occurs when people do not have the resources necessary to maintain a minimum quality of life that society accepts. There are several approaches to measuring poverty, including the income method, Multidimensional Poverty Index (MPI), Direct Calorie Intake (DCI), and Cost of Basic Needs (CBN) methods. The income approach measures poverty by calculating the percentage of the population that incomes less than what is required as a minimum to purchase the set of goods and services that serve as a threshold for poverty (Foster et al., 2013).

The Multidimensional Poverty Index (MPI) measures poverty by calculating

an individual’s overlapping deprivation scores across ten indicators in three equally weighted dimensions: standard of living, education, and health. Six indicators form the basis of the standard of living dimension, while two indicators each form the basis of the health and education dimensions (United Nations Development Program, 2023). The Bangladesh Bureau of Statistics (BBS) has used various methodologies since 1973–1974 for poverty measurement, including DCI, Food Energy Intake (FEI), and CBN (Hossain, 2020). The BBS has used both DCI and CBN methods in the Household Income and Expenditure Survey (HIES 2000; Hossain, 2020). The BBS has used only the CBN method for poverty estimation in the HIES 2010 and HIES 2016 (Bangladesh Bureau of Statistics [BBS], 2017). Bangladesh has made significant progress in lessening poverty during 2000–2022. HIES 2022 reported that the incidence of poverty was 34.3% concerning the lower poverty line and 48.9% concerning the upper poverty line in 2000 (BBS, 2023). By 2022, it had decreased to 5.6% concerning the lower poverty line and 18.7% concerning the upper poverty line. Other indices, like the poverty and squared poverty gaps, also decrease nationally. Moreover, the MPI of Bangladesh decreased from 0.237 in 2007 to 0.188 in 2016 (United Nations Development Program, 2017). Despite all these advances in poverty reduction, a substantial portion of the wetland peoples of Bangladesh still live below the poverty line.

A wetland is a place or region where water stays at or close to the surface of the

soil due to periodic or perennial flooding with shallow water (Ministry of Law, 2013). Bangladesh has several types of wetlands, and *haor* is one of them (Ministry of Water Resources, 2016). *Haor*, also called the seasonal water body, is a sizeable geological lowness with a bowl-shaped appearance and gathers surface runoff water during monsoon. The *haor* districts of Bangladesh occupy 19,998 square kilometers of land or 13.56% of the country's total area (Centre for Environmental and Geographic Information Services [CEGIS], 2012). About 43% (8585 sq. km.) of the *haor* district's total area is made up of wetlands, comprising 373 *haors* (CEGIS, 2012). Historically, the *haor* regions have not developed as quickly as the rest of the country because of their geographical location. Even if the *haor* regions are skilled in growing *boro-rice* and fishing in freshwater, the primary means of subsistence are mainly lacking. Due to floods and other natural calamities, the individuals involved in farming and labor selling are frequently unemployed, which causes poverty in these places and occasionally leads to famine-type situations. Long-term seasonality in the monsoon season is another factor contributing to people's unemployment (Hasan & Hossain, 2024). So, the *haor* people are significantly behind the country's general population in per capita income, consumption, electricity facilities, and roads, leading to a high poverty rate (Khondker & Mahzab, 2015).

According to Kazal et al. (2017), about 29.6% of *haor* people live below the lower poverty line, and 43.0% live below the upper

poverty line. As a result, a considerable portion of the *haor* people is grappling with food insecurity and lack of basic needs. The household-level poverty and food insecurity are distressingly common scenarios for the *haor* people (Amin & Farid, 2005). Many studies (Food and Agriculture Organization of the United Nations, 2017; H. M. T. Rahman et al., 2015; Shaw, 2006) have shown that flash floods have a detrimental effect on most of the *haor* population, who rely on agriculture for their livelihoods and are therefore vulnerable to food insecurity. Thus, poverty condition is a crucial issue for the population residing in the wetland region of Bangladesh. Special care is necessary for the vulnerable pockets where poverty is high, and the wetland region of Bangladesh is one of the vast areas where about 20 million people are living to achieve sustainable development goals (SDGs). A comprehensive study is essential to have the stakeholder's understanding of the poverty situation of the wetland population, encompassing both poverty conditions and risk factors. The existing studies on wetland people did not focus on both issues simultaneously with a strong statistical footing. The review revealed that selection bias and insufficient sample size are two other drawbacks of most current research on the wetland population of Bangladesh.

Hence, this study's objectives are (a) to estimate the poverty conditions of the people living in Bangladesh's northeastern wetland region and (b) to identify several risk factors linked to poverty. This study's main contribution is its comprehensive

nature, with an extensive sample size that includes all six districts of Bangladesh's northeastern wetland region, where most *haors* are located. This study's findings will help to understand the poverty scenario of Bangladesh's wetland region and take necessary actions to reduce poverty in that region.

## LITERATURE REVIEW

The review of literature has been made based on several studies focusing on estimating poverty conditions and associated risk factors in Bangladesh and abroad. These studies, conducted with thoroughness and precision, provide valuable insights into the poverty situation. Several studies at home and abroad were found to deal with the estimation of poverty (Alam, 2004; Kazal et al., 2017; Negash et al., 2019) and its risk factors (Acharya et al., 2022; Achia et al., 2010; Farah, 2015; Imam et al., 2018; Korankye, 2014). To investigate whether the choice of methods matters in determining the level of poverty, Hossain (2020) employed the CBN, the DCI, and the FEI methods based on the primary data collected from rural areas of the Sylhet division of Bangladesh. After thorough analyses, the study concluded that the choice of method affects the estimation of the incidence of poverty. The study also suggested using the modified approach of the direct calorie intake method (households took less amount of food than required considering the age and sex of the members) to estimate the poverty incidence by the DCI method as this method over-estimated

the poverty condition (Hossain, 2020). In the context of the wetland region, Alam (2004) conducted a study using the CBN and the DCI method to estimate the poverty situation of fishermen in the Sunamganj district of Bangladesh. The study found that 37.2% of the fishermen live below the lower and 54.7% live below the upper poverty line. The study's findings showed that the DCI method underestimated the poverty condition as 15.1% of the fishermen lie below the hardcore, and 47.7% lie below the absolute poverty. However, the study focused on a particular community, so generalizing results for the wetland regions is impossible. Kazal et al. (2017) estimated the poverty conditions in Bangladesh's northeastern *haor* districts using both CBN and the DCI method based on data collected from a comprehensive sample of 4200 households from *haor* areas in 2009. The study found that 29.6% of households lie below the LPL, and 43.0% lie below the UPL by the CBN method. However, the study did not focus on the risk of poverty. Negash et al. (2019) applied the CBN method to estimate the poverty lines in three districts of the Tigray region in northern Ethiopia. According to the findings, the absolute total poverty line was estimated as ETB 5112.0 per adult per annum, and over half of the households were found to be poor.

An extensive corpus of literature in almost every country addresses key components of poverty. For example, Imam et al. (2018) used data from the nationally representative Household Income

and Expenditure Survey (HIES)-2010 to determine rural Bangladesh's poverty determinants. The study found that several factors contribute to poverty, including the age and education of the household head, division, household size, house type, per capita income, ownership of land, access to electricity, amount of cultivable land, involvement with livestock and farm forestry, possession of non-agricultural assets, and the proportion of male and female wage earners in the family. Farah (2015) conducted a study identifying factors significantly affecting household poverty. The study used data from the Bangladesh Demographic and Health Survey (BDHS 2011). A logistic regression was estimated using a set of demographic factors as the explanatory variables and socio-economic status (SES) as the dependent variable. The result suggested that the factors that affect the likelihood of a household being poor are the age, sex, and religion of the household head, household size, housing condition, land ownership, and child-woman ratio. Acharya et al. (2022) used the binary logistic regression model to determine the factors responsible for poverty in Nepal. The study found that the household head's illiteracy status, remittance status, landholding status, access to the nearest market, and number of literate persons of working age are the potential risk factors for poverty. Achia et al. (2010) researched the key factors contributing to poverty in Kenya using a logistic regression model. The study identified that age, educational level of household head, household size,

type of residence, religion, and ethnicity are the significant risk factors for poverty. A study by Korankye (2014) found that the prevalence of diseases, lack of education, corruption, and inefficient government are the leading causes of poverty in Ghana. The review of existing literature revealed that no studies cover a broad geographic region in the context of poverty and its risk factors. So, there is an urgent need to estimate the poverty level and its risk factors for the wetland region of Bangladesh.

It is documented that the *haor* region of Bangladesh faces significant poverty and food insecurity among its residents, with 37.3% and 77.3% being food insecure based on calorie and protein consumption (Chowdhury, 2014), despite being productive for *boro-rice* farming and biodiversity. Floods and other natural calamities often lead to unemployment, poverty, and famine-like situations. The literature review suggests that an in-depth study on the risk factors of poverty is lacking in the existing literature.

## METHODS

### Study Area

This study was conducted in Bangladesh's northeastern wetland region, covering six *haor*-prone districts: Sunamganj, Sylhet, Habiganj, Maulvibazar, Netrokona, and Kishoreganj. *Haors* are mainly found in Sunamganj, Sylhet, Netrokona, and Kishoreganj districts. There are 366 *haors* in the six districts above, although only seven are in the Brahmanbaria district (CEGIS, 2012).

## The Data

The required data for this study was taken from the data collected through a household survey by a research project titled “Vicious Cycle of Poverty in *Haor* Region of Bangladesh: Impact of Formal and Informal Credits” funded by the Grants for Advanced Research in Education (GARE) Program, Ministry of Education, Government of Bangladesh (GoB). Since the data was collected from several individuals at a single time point hence, it is cross-sectional. The household survey for required data collection was conducted from February–December 2019. This study took several steps to check the validity and reliability of the data. Among them, cross-checks of several filled-up interview schedules by supervisors and examination of the validity of the variables by data exploration were performed.

## Sample Design

A cluster-sampling design was used in the survey from which the data was extracted, and *haor* attached unions were considered clusters. The survey covers a total of 30 clusters. The sample size for the survey was 2340 according to the standard sample size determination formula<sup>1</sup>. The survey used the following procedures to select clusters as well as households:

- (i) The number of *haors* in each of the six districts is defined and determined.

- (ii) A stratified random sampling with proportional allocation was employed to estimate the number of *haors* in each district. A systematic probability proportional to size (PPS) sampling was then used to select *haor* from six districts.
- (iii) A cluster was chosen randomly from each of the chosen *haors*.
- (iv) The households within the cluster were chosen at random using the UNICEF pencil-spin method.
- (v) Finally, 2340 households (78 from each cluster) were chosen from 30 clusters for interview.

## Analytical Techniques

This study estimated household poverty using the Cost of Basic Needs (CBN) method. The poverty estimation through the CBN method is based on FGT (Foster, Greer, Thorbecke) family of poverty measures (Foster et al., 1984, 2010). It is argued that the CBN method provides better estimates of poverty than other methods like DCI and FEI. The association between poverty status and the background characteristics of the individuals and households in Bangladesh’s wetland region was studied using the chi-square test of independence. A significant factor with a *p*-value (<0.10) in bivariate analysis was considered to identify the potential predictors for multivariate analysis. Finally, the Binary Multiple Logistic Regression (BMLR) model has been employed to determine the essential risk factors contributing to the poverty status

<sup>1</sup>  $n = \frac{p(1-p)Z^2}{(0.04p)^2} \times Deff$ ; Where, *p* = percentage indicator, *Z* = normal variate value with 95% CI, 0.04*p* = relative error margin, and *Deff* = design effect.

of the wetland population of Bangladesh. The analyses were performed using SPSS (Windows version 25.0).

**The Cost of Basic Needs (CBN) Method**

The CBN method calculates the area-specific poverty threshold (S. Rahman, 1999; Ravallion & Sen, 1996). This method estimates two poverty lines, (1) the lower and (2) the upper poverty line, in three steps.

Step One: Calculation of food poverty line:

The first step involved calculating the cost of a bundle of specific food items. The bundle comprises eleven items: coarse rice, wheat, pulses, fruits, potatoes, vegetables, milk, oil, meats, fish, and sugar, as recommended by Ravallion and Sen (1996) based on Alamgir (1974). It covers 2,122 kcal per day per person, the minimum nutrition requirement.

Step Two: Calculation of two non-food allowances for non-food consumption:

- The “non-food lower allowance” was obtained by taking the median amount utilized for non-food goods by households whose per capita total expenditure is near the food poverty line.
- The “non-food upper allowance” was obtained by taking the median amount utilized for non-food goods by households whose per capita food expenditure is near the food poverty line.

Step Three: Calculation of two poverty lines:

- Lower Poverty Line (LPL): food poverty line + non-food lower allowance
- Upper Poverty Line (UPL): food poverty line + non-food upper allowance

**The Head Count, Poverty Gap, and Squared Poverty Gap Indices of the CBN Method**

Let,  $Y_i = (Y_1, Y_2, \dots, Y_N)$  be a vector of the household’s per capita consumption expenditure;  $N$  = number of sampled households;  $N_p$  = number of sampled poor households;  $Z_L$  = per capita lower poverty line;  $Z_U$  = per capita upper poverty line;  $I_1(.)$  = indicator function that holds 1 if  $Y_i < Z_L$  and 0 otherwise; and  $I_2(.)$  = indicator function that holds 1 if  $Y_i < Z_U$ , and 0 otherwise. Then, the indices can be defined as follows:

Headcount in terms of LPL:

$$P_{01} = \frac{1}{N} \sum_{i=1}^{N_p} I_1(Y_i < Z_L)$$

Headcount in terms of UPL:

$$P_{02} = \frac{1}{N} \sum_{i=1}^{N_p} I_2(Y_i < Z_U)$$

Poverty gap in terms of LPL:

$$P_{11} = \frac{1}{N} \sum_{i=1}^{N_p} \frac{G_i}{Z_L}$$

Where,  $G_i = (Z_L - Y_i) \cdot I(Y_i < Z_L)$  is the poverty gap score in terms of LPL.

Poverty gap in terms of UPL:

$$P_{12} = \frac{1}{N} \sum_{i=1}^{N_p} \frac{G_i}{Z_U}$$

Where,  $G_i = (Z_U - Y_i) \cdot I(Y_i < Z_U)$  is the poverty gap score in terms of UPL.

Squared poverty gap in terms of LPL:

$$P_{21} = \frac{1}{N} \sum_{i=1}^{N_p} \left( \frac{G_i}{Z_L} \right)^2$$

Squared poverty gap in terms of UPL:

$$P_{22} = \frac{1}{N} \sum_{i=1}^{N_p} \left( \frac{G_i}{Z_U} \right)^2$$

### Association Between the Outcome Variable and Covariates

The chi-square test of independence has been used to explore the association between the outcome variable (poverty conditions) and several explanatory variables (background characteristics of individuals and households).

In this case, the hypotheses are as follows:

$H_0$ : There is no association between the household's poverty conditions and their background characteristics.

$H_1$ : There is an association between the household's poverty conditions and their background characteristics.

The test statistic is:

$$\chi^2 = \sum_{i=1}^r \sum_{j=1}^c \frac{(O_{ij} - E_{ij})^2}{E_{ij}}$$

With  $(r - 1)(c - 1)$  degrees of freedom.

Where  $O_{ij}$  = Observed cell frequency,  $E_{ij}$  = Expected cell frequency,  $r$  = No. of categories of one variable,  $c$  = No. of categories of another variable.

### Binary Multiple Logistic Regression (BMLR) Model

This study developed two BMLR models to extract potential risk factors associated

with household poverty levels. The models are stated below:

Let,  $X = (X_1, X_2, \dots, X_n)$  ( $n = 1, 2, \dots, 13$ ) is a vector of the collection of household predictors and  $Y_i(LPL)$  is a binary outcome variable that indicates the household's poverty condition based on LPL. Where,

$$Y_i(LPL) = \begin{cases} 1 & \text{if the } i\text{-th household lies below the LPL} \\ 0 & \text{otherwise} \end{cases}$$

The conditional probability of the  $i$ -th household lies below LPL given  $X$  be written as

$$\begin{aligned} \pi_i(LPL) &= \text{Prob}[Y_i(LPL) = 1 | X] \\ &= \frac{\exp\left(\beta_0 + \sum_{i=1}^{13} \beta_i X_i\right)}{1 + \exp\left(\beta_0 + \sum_{i=1}^{13} \beta_i X_i\right)} \end{aligned}$$

Here,  $\beta = (\beta_1, \beta_2, \dots, \beta_n)$  ( $n = 1, 2, \dots, 13$ ) is a vector of unknown parameters ordinarily estimated by the method of maximum likelihood.

The logit of  $\pi_i(LPL)$  with predictors is given by

$$\log_e \left( \frac{\pi_i(LPL)}{1 - \pi_i(LPL)} \right) = \beta_0 + \sum_{i=1}^{13} \beta_i X_i \quad [1]$$

Similarly, the logit of  $\pi_i(UPL)$  with predictors is given by

$$\log_e \left( \frac{\pi_i(UPL)}{1 - \pi_i(UPL)} \right) = \beta_0 + \sum_{i=1}^{12} \beta_i X_i \quad [2]$$



Where,  $\pi_i(UPL)$  is the conditional probability of the  $i$ -th household lies below UPL given  $X$ . Models (1) and (2) are the BMLR models.

### Study Variables

This study considered several individual-level and household-level characteristics as explanatory variables from previous research (Borko, 2017; Hossain et al., 2013; Imam et al., 2018; Kazal et al., 2017). The two poverty lines served as the outcome

variables. Table 1 shows the list of study variables and their descriptions.

## RESULTS AND DISCUSSION

### Poverty Measures Using the CBN Method

An adult in Bangladesh is estimated to need at least 832 grams of food, or 2,122 kcal per day (Bangladesh Institute of Development Studies, 1997). The Bangladesh Institute of Development Studies (BIDS) suggested 397 grams of rice, 40 grams of wheat, 40 grams

Table 1  
Study variables with description

Study Variables	Description	Type	Class level
Explanatory variables			
Geographical region	District of households	Categorical	Sunamganj, Sylhet, Kishoreganj, Habiganj, Netrokona
Household size	Number of household members	Categorical	<4, 4 or more
Age	Age of the respondents	Categorical	≤30, 31–50, 51–60, 60+
Religion	Religion of the respondents	Categorical	Muslim, Non-Muslim
Gender	Gender of household head	Categorical	Male, Female
Educational status	Year of schooling of household head	Categorical	Below primary, Primary or above
Occupation	Occupation of household head	Categorical	Farming, Day laborer, Off-farm activities, Service/Business, Household work, Others
Marital status	Marital status of the respondents	Categorical	Married, Unmarried, Widowed/Divorced
Micro-credit status	Households' micro-credit status	Categorical	Non-borrower, Borrower
NGO membership	Households' NGO membership	Categorical	No, Yes
Per capita income	Households' per capita income (in BDT) per year	Categorical	≤10000, 10000–20000, 20000–30000, 30000 or more
Agricultural land	Households' amount of agricultural land (in decimal)	Categorical	No Land, 1–15 decimal, 16–50 decimal, 50+ decimal
Electricity connection	Access to electricity in households	Categorical	No, Yes
Livestock	Households' livestock ownership	Categorical	No, Yes
Outcome variables			
Poverty conditions (based on LPL)	Households' poverty conditions based on LPL	Categorical	Below LPL, Otherwise
Poverty conditions (based on UPL)	Households' poverty conditions based on UPL	Categorical	Below UPL, Otherwise

of pulses, 20 grams of fruits, 27 grams of potatoes, 150 grams of vegetables, 58 grams of milk, 20 grams of oil, 12 grams of meat, 48 grams of fish, and 20 grams of sugar as a food combination. Generally, the rural people of Bangladesh rely more on rice than other foods. Hence, a higher combination of food and a daily intake of 455 grams of rice per person was used by BBS (2000). The food combinations suggested by BIDS (1997) and BBS (2000) were considered for this study when determining the daily food combinations per capita. The average cost of each item in food combinations was determined using data from BBS (2020a, 2020b). To estimate poverty, the food intake, price, and calorie contents for the population under study are shown in Table 2.

The headcount index, poverty gap index, and squared poverty gap index are members of the FGT (Foster, Greer, Thorbecke) family of poverty measures (Foster et al., 1984, 2010). Table 2 shows

that the per capita lower and upper poverty lines are BDT 16296.5 and BDT 21638.2, respectively. According to these poverty line thresholds, about 55% and 25% of households were ‘poor’ and ‘very poor,’ respectively, based on LPL and UPL (Table 3). The incidence of poverty measured by the headcount index is easy to estimate and understand. However, the headcount index has weaknesses in that it does not consider the intensity of poverty, it does not change if people below the poverty line become poorer, and it is designed for the poverty estimates of individuals and not households (Haughton & Khandker, 2009). Considering the headcount index’s limitations, this study employed the poverty gap and squared poverty gap proposed by Foster et al. (1984, 2010). The poverty gap index is a widely used measure of the degree of poverty in a country or a population. It is expressed as a percentage of the poverty line and is defined as the average number of people living

Table 2  
*Estimation of poverty lines by the CBN method*

Food items	Food intake per capita per day (in gm)	Calorie content per gm	Total calorie	Average price per kg	Average price (in BDT) of required quantity
Cereals					
Rice	448.00	3.52	1576.96	33.50	15.008
Wheat	36.56	3.4206	125.06	23.44	0.8570
Pulses					
Masur	7.53	3.4316	25.84	82.81	0.6236
Mash Kalai	1.94	3.3608	6.52	74.30	0.1441
Khesari	6.00	3.4517	20.71	44.58	0.2675
Fruits					
Potato	20.00	0.9291	18.58	63.51	1.2702
Potato	61.19	0.9701	59.36	18.11	1.1082
Vegetables					
Leafy Vegetables	72.37	0.6496	47.01	15.09	1.0921

Table 2 (continue)

Food items	Food intake per capita per day (in gm)	Calorie content per gm	Total calorie	Average price per kg	Average price (in BDT) of required quantity
Others	57.26	0.3309	18.95	28.21	1.6153
Milk	29.70	0.7471	22.19	73.04	2.1693
Edible Oils	8.63	9.0073	77.73	83.65	0.7219
Meat					
Mutton	0.69	1.1884	0.82	655.16	0.4521
Beef	4.98	1.1386	5.67	418.84	2.0858
Chicken/Duck	3.96	1.1995	4.75	118.56	0.4695
Fishes	29.09	1.1447	33.3	168.61	4.9049
Eggs	3.20	1.7438	5.58	167.05	0.5346
Spices					
Onion	19.74	0.5	9.87	36.77	0.7258
Chilies	7.55	2.4291	18.34	44.39	0.3351
Others	6.61	2.6082	17.24	86.81	0.5738
Sugar and Molasses	7.00	3.982	27.87	50.73	0.3551
Total	824.45		2122.35		35.3138
Estimated values of food poverty line and allowances					BDT
Food poverty line per capita					12888.15
Lower allowance per capita					3408.33
Upper allowance per capita					8750.00
Lower poverty line (LPL) per capita					16296.48
Upper poverty line (UPL) per capita					21638.15

Note. Rate of Exchange: 1.00 USD = 84.90 BDT in December 2019 (Bangladesh Bank, 2023); Source: Computed from survey data, 2019; BBS (2000, 2020a, 2020b); BIDS (1997)

Table 3

Headcount index, poverty gap, and squared poverty gap index

Indices	Estimated value	HIES-2016 (BBS, 2017)
Headcount index		
Based on LPL	25.0%	14.9%
Based on UPL	55.1%	26.4%
Poverty gap index (overall)		
Based on LPL	4.7%	2.6%
Based on UPL	13.5%	5.4%
Squared poverty gap index (overall)		
Based on LPL	1.3%	0.7%
Based on UPL	4.6%	1.7%

below the line. This index, in actuality, measures the depth of poverty by taking into account the average distance between the impoverished and the poverty line.

The overall poverty gaps were estimated at 4.7% and 13.5% in terms of LPL and UPL, respectively, which shows the depth of poverty of the wetland population of Bangladesh. The results indicate that for those who lie under the lower poverty line, the average distance of their expenditure was 4.7% less than the poverty line. Similarly, the average distance of their expenditure was 13.5% less than the poverty line for households below the upper poverty line.

The squared poverty gap index assigns more weight to those who belong far below the poverty line than those who are closer to it by squaring the poverty gap for each household or individual. Therefore, it is considered the poverty severity index. The overall squared poverty gaps were estimated at 1.3% and 4.6% in terms of LPL and UPL, respectively, which measures the severity of poverty of the wetland population by the two poverty lines. The findings indicate that the incidence, depth, and severity of poverty among the wetland population were higher than the national average for rural areas, as HIES 2016 of BBS (2017) exposed. The incidence, depth, and severity of poverty among the wetland population are higher because of the skewed ownership pattern of land, mono-crop cultivation pattern, seasonal unemployment due to the lack of work opportunities in the lean season, absence of required income generating activities (IGAs) like cage fishing, floating

gardens, and rearing of ducks. Therefore, stakeholders' attention is necessary not only to reduce the incidence of poverty of the wetland population but also to the depth and severity of the poverty.

### **Poverty Conditions by Background Characteristics of the Households**

The association of poverty conditions with several background characteristics of the households and household heads has been carried out to study the differentials of poverty as well as to explore the potential covariates for the BMLR models. The significance of the variables has been examined through the values of chi-squares and their  $p$ -values (Table 4).

The incidence of poverty among wetland households varies across the background characteristics of households and household heads. Almost all the covariates except educational status were highly significantly ( $p < 0.01$ ) associated with the household's poverty conditions based on LPL. The marital status and ownership of livestock were found significant, with a  $p$ -value of 0.004 and 0.070, respectively. Regarding UPL, all factors except marital status and ownership of livestock were found to be significantly ( $p < 0.05$ ) associated with the household's poverty conditions. Access to electricity was found significant with a  $p$ -value = 0.085.

According to findings, the highest percentage of households (34.0%) in the Kishoreganj district lies below the lower poverty line, followed by the Habiganj (26.3%) and Sunamganj (25.2%) districts.

Table 4  
*Association of covariates with response variables (poverty conditions based on LPL and UPL)*

Background characteristics	Overall, n(%)	Poverty conditions (based on LPL)		p-value	Poverty conditions (based on UPL)		p-value
		HHs below LPL, n(%)	Otherwise, n(%)		HHs below UPL, n(%)	Otherwise, n(%)	
Total	2340(100)	578(24.7)	1762(75.3)		1290(55.1)	1050(44.9)	
<b>Geographical region</b>							
Sunamganj	1256(53.7)	316(25.2)	940(74.8)		714(56.8)	542(43.2)	
Sylhet	78(3.3)	4(5.1)	74(94.9)		23(29.5)	55(70.5)	
Kishoreganj	315(13.5)	107(34.0)	208(66.0)	<0.001	169(53.7)	146(46.3)	<0.001
Habiganj	312(13.3)	82(26.3)	230(73.7)		201(64.4)	111(35.6)	
Netrokona	379(16.2)	69(18.2)	310(81.8)		183(48.3)	196(51.7)	
<b>Household size (person)</b>							
<4	306(13.1)	13(4.2)	293(95.8)	<0.001	88(28.8)	218(71.2)	<0.001
4 or more	2034(86.9)	565(27.8)	1469(72.2)		1202(59.1)	832(40.9)	
<b>Age of respondents</b>							
≤30	394(16.8)	81(20.6)	313(79.4)		217(55.1)	177(44.9)	
31–50	1453(62.1)	400(27.5)	1053(72.5)	<0.001	853(58.7)	600(41.3)	<0.001
51–60	332(14.2)	75(22.6)	257(77.4)		162(48.8)	170(51.2)	
60+	161(6.9)	22(13.7)	139(86.3)		58(36.0)	103(64.0)	
<b>Religion of respondents</b>							
Muslim	1425(60.9)	411(28.8)	1014(71.2)	<0.001	841(59.0)	584(41.0)	<0.001
Non-Muslim	915(39.1)	167(18.3)	748(81.7)		449(49.1)	466(50.9)	
<b>Gender of household head</b>							
Male	1796(78.6)	482(26.8)	1314(73.2)	<0.001	1020(56.8)	776(43.2)	0.003
Female	544(23.2)	96(17.6)	448(82.4)		270(49.6)	274(50.4)	
<b>Educational status of household head</b>							
Below primary	1872(80.0)	458(24.5)	1414(75.5)	0.598	1054(56.3)	818(43.7)	0.022
Primary or above	468(20.0)	120(25.6)	348(74.4)		236(50.4)	232(49.6)	
<b>Occupation of household head</b>							
Farming	461(19.7)	92(20.0)	369(80.0)		233(50.5)	228(49.5)	
Day laborer	532(22.7)	168(31.6)	364(68.4)		329(61.8)	203(38.2)	
Off-farm activities	308(13.2)	116(37.7)	192(62.3)	<0.001	221(71.8)	87(28.2)	<0.001

Table 4 (continue)

Background characteristics	Overall, n(%)	Poverty conditions (based on LPL)		p-value	Poverty conditions (based on UPL)		p-value
		HHs below LPL, n(%)	Otherwise, n(%)		HHs below UPL, n(%)	Otherwise, n(%)	
Service/Business	441(18.8)	85(19.3)	356(80.7)		204(46.3)	237(53.7)	
Household work	442(18.9)	74(16.7)	368(83.3)		214(48.4)	228(51.6)	
Others	156(6.7)	43(27.6)	113(72.4)		89(57.1)	67(42.9)	
<b>Marital status of respondents</b>							
Married	2158(92.2)	549(25.4)	1609(74.6)		1192(55.2)	966(44.8)	0.369
Unmarried	60(2.6)	5(8.3)	55(91.7)	0.004	28(46.7)	32(53.3)	
Widowed/Divorced	122(5.2)	24(19.7)	98(80.3)		70(57.4)	52(42.6)	
<b>Micro-credit status of household</b>							
Non-Borrower	733(31.3)	230(31.4)	503(68.6)	<0.001	468(63.8)	265(36.2)	<0.001
Borrower	1607(68.7)	348(21.7)	1259(78.3)		822(51.2)	785(48.8)	
<b>NGO membership of household</b>							
No	1143(48.8)	359(31.4)	784(68.6)	<0.001	701(61.3)	442(38.7)	<0.001
Yes	1197(51.2)	219(18.3)	978(81.7)		589(49.2)	608(50.8)	
<b>Per capita income (in BDT) per year of household</b>							
≤10000	197(8.4)	148(75.1)	49(24.9)		178(90.4)	19(9.6)	
10000–20000	1190(50.9)	413(34.7)	777(65.3)	<0.001	948(79.7)	242(20.3)	<0.001
20000–30000	617(26.4)	13(2.1)	604(97.9)		138(22.4)	479(77.6)	
30000 or more	336(14.4)	4(1.2)	332(98.8)		26(7.7)	310(92.3)	
<b>Agricultural land of household</b>							
No land	1589(67.9)	452(28.4)	1137(71.6)		951(59.8)	638(40.2)	
1–15 decimal	157(6.7)	47(29.9)	110(70.1)	<0.001	99(63.1)	58(36.9)	<0.001
16–50 decimal	191(8.2)	37(19.4)	154(80.6)		99(51.8)	92(48.2)	
50+ decimal	403(17.2)	42(10.4)	361(89.6)		141(35.0)	262(65.0)	
<b>Electricity connection in household</b>							
No	451(19.3)	151(33.5)	300(66.5)	<0.001	265(58.8)	186(41.2)	0.085
Yes	1889(80.7)	427(22.6)	1462(77.4)		1025(54.3)	864(45.7)	
<b>Livestock ownership of household</b>							
No	1359(58.1)	317(23.3)	1042(76.7)	0.070	738(54.3)	621(45.7)	0.346
Yes	981(41.9)	261(26.6)	720(73.4)		552(56.3)	429(43.7)	

Based on UPL, the highest percentage of households (64.4%) in the Habiganj district lies below the poverty line, followed by the Sunamganj (56.8%) and Kishoreganj (53.7%) districts. The poverty level of *haor* areas is much higher than the national level (Table 3). The variation of the poverty level across districts is found to be statistically significant ( $p < 0.01$ ), and the variation is due to the variation of facilities in the district.

A larger portion of households with four or more members lie below the poverty line (27.8% below LPL and 59.1% below UPL). The percentage of respondents below the poverty line was highest among male respondents (26.8% below LPL and 56.8% below UPL) compared to female respondents (17.6% below LPL and 49.6% below UPL). The variation in poverty was not remarkable for the education of the respondents. The incidence of poverty was found to be higher (37.7% below LPL and 71.8% below UPL) for the households whose heads were engaged in off-farm activities. A study conducted by Kazal et al. (2017) in the *haor* region of Bangladesh found the highest incidence of poverty among non-agri laborers.

The proportion of households below the poverty level was lower among borrowers (21.7% below LPL and 51.2% below UPL) compared to non-borrower households (31.4% below LPL and 63.8% below UPL), which implies that receiving micro-credit may reduce poverty in borrower households.

About 28% and 60% of the landless households lie below the lower and upper poverty lines, respectively. However, most

households lie below the two poverty lines (about 30% for LPL and 63% for UPL), with 1–15 decimal agricultural land. Only about 10% and 35% of the households lie below the lower and upper poverty lines, respectively, with agricultural land of 50+ decimal.

### **Risk Factors of Poverty Using the BMLR Models**

Table 5 shows the results of the BMLR models to determine the risk factors of poverty conditions. The p-value of the Hosmer-Lemeshow test suggests that both BMLR models fit the data well. The estimated BMLR model based on LPL identified ten significant risk factors (geographical region, household size, religion, occupation, micro-credit status, NGO membership, per capita income, agricultural land, electricity connection in the household, and livestock ownership) of poverty out of thirteen. Similarly, eight significant risk factors (geographical region, household size, age, religion, micro-credit status, per capita income, agricultural land, and electricity connection in the household) out of twelve were identified by the BMLR model based on UPL. The geographical region is regarded as an important predictor of poverty based on both LPL and UPL, and the risk of poverty was found to vary significantly across districts.

The likelihood of poverty based on LPL was found remarkably higher for the Kishoreganj district (OR: 1.15; 95% CI: 0.80–1.66) and lower for the Sylhet district (OR: 0.28; 95% CI: 0.09–0.82) in comparison

Table 5

Estimated coefficients and odds ratios of the BMLR models to determine the risk factors of poverty conditions

Factors	Results of BMLR model based on LPL			Results of BMLR model based on UPL		
	$\beta$	OR (95% CI)	p-value	$\beta$	OR (95% CI)	p-value
<b>Geographical region</b>						
Sunamganj: Ref.		1.00			1.00	
Sylhet	-1.29	0.28 (0.09–0.82)	0.021**	-0.99	0.37 (0.19–0.71)	0.003***
Kishoreganj	0.14	1.15 (0.80–1.66)	0.446	-0.61	0.54 (0.38–0.78)	0.001***
Habiganj	-0.12	0.89 (0.62–1.27)	0.508	-0.13	0.88 (0.61–1.25)	0.468
Netrokona	-0.29	0.75 (0.49–1.14)	0.174	-0.13	0.88 (0.61–1.26)	0.473
<b>Household size (person)</b>						
<4: Ref.		1.00			1.00	
4 and more	2.17	8.74 (4.48–17.08)	<0.001***	1.24	3.44 (2.38–4.99)	<0.001***
<b>Age of respondents</b>						
≤30: Ref.		1.00			1.00	
31–50	-0.12	0.89 (0.62–1.27)	0.520	-0.29	0.75 (0.54–1.03)	0.072*
51–60	-0.29	0.75 (0.47–1.19)	0.223	-0.73	0.49 (0.32–0.74)	0.001***
60+	-0.59	0.56 (0.29–1.09)	0.086*	-0.99	0.37 (0.22–0.64)	<0.001***
<b>Religion of respondents</b>						
Muslim: Ref.		1.00			1.00	
Non-Muslim	-0.40	0.67 (0.50–0.89)	0.006**	-0.27	0.76 (0.59–0.99)	0.041**
<b>Gender of household head</b>						
Male: Ref.		1.00			1.00	
Female	0.01	1.01 (0.53–1.95)	0.974	0.29	1.33 (0.76–2.34)	0.322
<b>Educational status of household head</b>						
Below primary: Ref.		1.00			1.00	
Primary or above				-0.16	0.86 (0.63–1.17)	0.324
<b>Occupation of household head</b>						
Farming: Ref.		1.00			1.00	
Day laborer	0.44	1.55 (1.06–2.28)	0.025**	0.28	1.33 (0.92–1.92)	0.131
Off-farm activities	0.33	1.39 (0.91–2.15)	0.130	0.27	1.31 (0.84–2.03)	0.233
Service/Business	0.06	1.06 (0.69–1.62)	0.791	-0.27	0.77 (0.52–1.12)	0.172
Household work	-0.42	0.66 (0.31–1.37)	0.263	-0.65	0.52 (0.27–1.02)	0.056*
Others	0.39	1.48 (0.82–2.65)	0.191	0.30	1.35 (0.76–2.39)	0.302
<b>Marital status of respondents</b>						
Married: Ref.		1.00				
Unmarried	-0.89	0.41 (0.14–1.20)	0.104			
Widowed/Divorced	0.33	1.39 (0.72–2.69)	0.323			
<b>Micro-credit status of household</b>						
Non-Borrower: Ref.		1.00			1.00	
Borrower	-0.63	0.53 (0.39–0.72)	<0.001***	-1.10	0.33 (0.24–0.46)	<0.001***
<b>NGO membership of household</b>						
No: Ref.		1.00			1.00	
Yes	-0.49	0.61 (0.46–0.81)	0.001***	-0.26	0.77 (0.59–1.01)	0.061*



Table 5 (continue)

Factors	Results of BMLR model based on LPL			Results of BMLR model based on UPL		
	$\beta$	OR (95% CI)	p-value	$\beta$	OR (95% CI)	p-value
<b>Per capita income (in BDT) per year of household</b>						
≤10000: Ref.		1.00			1.00	
10000-20000	-1.75	0.17 (0.12–0.25)	<0.001***	-0.75	0.47 (0.28–0.79)	0.004***
20000-30000	-4.96	0.01 (0.00–0.01)	<0.001***	-3.55	0.03 (0.02–0.05)	<0.001***
30000 or more	-5.28	0.01 (0.00–0.02)	<0.001***	-4.68	0.01 (0.01–0.02)	<0.001***
<b>Agricultural land of household</b>						
No land: Ref.		1.00			1.00	
1-15	0.12	1.13 (0.72–1.77)	0.597	0.22	1.24 (0.79–1.95)	0.346
16-50	-0.19	0.82 (0.51–1.32)	0.419	0.21	1.23 (0.80–1.89)	0.340
50+	-0.93	0.39 (0.26–0.61)	<0.001***	-0.72	0.49 (0.35–0.68)	<0.001***
<b>Electricity connection in household</b>						
No: Ref.		1.00			1.00	
Yes	-0.73	0.48 (0.35–0.67)	<0.001***	-0.39	0.68 (0.49–0.93)	0.016**
<b>Livestock ownership of household</b>						
No: Ref.		1.00				
Yes	0.45	1.56 (1.20–2.03)	0.001***			
<b>Constant</b>	0.48	1.62	0.295	3.07	21.503	<0.001
Hosmer and Lemeshow Chi-square = 12.989; p-value = 0.112			Hosmer and Lemeshow Chi-square = 6.448; p-value = 0.597			

Note. OR = odds ratio, CI = confidence interval, \* $p < 0.10$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$

to that of the Sunamganj district. On the other hand, the risk of poverty based on UPL was lower for all other districts (Sylhet, Kishoreganj, Habiganj, and Netrokona) than the Sunamganj district. The poverty risk was lowest for the Sylhet district (OR: 0.37; 95% CI: 0.19-0.71). The regional variation of the poverty risk is due to the variation of facilities in the districts. For instance, Sunamganj is one of the most degraded regions of Bangladesh due to geographical and environmental factors, and crop cultivation is the primary source of income for the people living in this area (Mia, 2021). Many farmers go fishing when they have spare time after harvesting *boro* crops. The people in this area have

no other sources of income during natural disasters like floods. In the lean season, some wetland residents adopted seasonal migration to other areas like Sylhet and Dhaka for their livelihood. On the other hand, Sylhet has many advantages among wetland districts, such as communication facilities (rail, road, and air), work opportunities, and a strong international *diaspora* network. That is why the poverty rate in the Sylhet district is lower than that of the other wetland districts. About this reality, our study found that households in the Sylhet district had a 72% and 63% lower risk of poverty according to the LPL and UPL, respectively, than those in the Sunamganj district.

Household size is regarded as an important risk factor for poverty based on LPL and UPL. The risk of poverty based on LPL and UPL was found to be 8.7 and 3.4 times higher, respectively, for households with four or more members in comparison to that of less than 4 members. The study conducted in Ethiopian rural areas by Bogale et al. (2005) supports this result. The literature found dissimilar results regarding the nexus between poverty and household size. Based on data from all over Bangladesh, Hossain et al. (2013) documented that the likelihood of food insecurity decreased with the increase in household size. On the other hand, Borko (2017) has argued that family members become unemployed due to the high fertility rate in rural areas and the lack of work opportunities. Moreover, households with larger members also need to make larger financial contributions for food, clothing, healthcare, and education, which will lead to a rise in household poverty. Meyer and Nishimwe-Niyimbanira (2016) conducted a study in South Africa and came to the same conclusion. In the case of the *haor* region, large families suffer from poverty primarily because of a lack of work opportunities.

This study included the respondents' age as a potential risk factor in the model. According to our findings, respondents with an age of more than 60 years were significantly 63% less likely to lie below the UPL than those with an age  $\leq 30$  years. R. I. Rahman et al. (2012) noticed a similar result in rural Bangladesh using HIES-2005.

The risk of lying below the LPL and UPL was 33% and 24% lower for non-Muslim (Hindu, Christian) respondents than their Muslim counterparts. The gender of the household head was found insignificant in both the models based on LPL and UPL, though the study found that female-headed households are more prone to poverty than male-headed households.

The education of household heads is regarded as a powerful tool in fighting against poverty in Bangladesh (Imam et al., 2018). However, this potential indicator was insignificant in our study's BMLR model based on UPL. One plausible explanation is that most people in the wetland region are illiterate or poorly educated. The variation of education of the respondents (household heads) of the study population is less; hence, there is no contribution as a poverty determinant.

Household head's occupations substantially affect the income of the household, which also affects their poverty. The study's findings indicate that the probability of lying below the LPL was 1.6 times higher for day-laborer households than for farmer households. According to Mia (2021), the primary source of income for the people in wetland areas is crop cultivation. Flash floods sometimes damage the *boro* crop of the wetland region, and their poverty condition becomes more vulnerable. The earnings of day laborers become difficult throughout the year due to the lack of work opportunities.

Several studies have documented that people in wetland areas rely on high-interest

loans from local moneylenders and micro-credit organizations to meet their basic needs while unemployed (Amin & Farid, 2005; Islam et al., 2024; Kazal et al., 2017). The micro-credit program is considered an effective anti-poverty tool for the people of Bangladesh (United Nations Educational, Scientific and Cultural Organization, 1997). In this context, this study found that borrower households had a 47% and 67% lower risk of lying below the LPL and UPL, respectively, in comparison to non-borrower households. Borko (2017) reported similar results from his study in rural Ethiopia. Our findings support the efficacy of micro-credit in eradicating poverty in the short run.

According to Ara et al. (2020), along with several local NGOs like Grameen Bank, ASA (Association for Social Advancement), TMSS (Thengamara Mohila Sabuj Sangha), RDRS (Rangpur Dinajpur Rural Service), Shakti Foundation, POPI (People's Oriented Program Implementation), CNRS (Center for Natural Resource Studies), FIVDB (Friends in Village Development Bangladesh), and ASD (Assistance for Slum Dwellers), several international NGOs like Care Bangladesh, Concern Bangladesh, and Oxfam have been working for the long-term well-being of the wetland region population. With this context, our study found a positive impact of NGO membership on the household's poverty condition. For instance, the risk of lying below the LPL and UPL was 39% and 23% lower for NGO member households than their non-member counterparts. One possible explanation may be that an NGO

member can easily get micro-credit facilities to invest in income-generating activities.

Income is the most crucial economic indicator for impoverished households, as it stimulates their local economic activity and raises their standard of living (Hamoh & Harun, 2021). Hence, the per capita income of wetland people may appear to have a highly significant influence on their poverty condition. The risk of lying below the LPL and UPL was 83% and 53% lower, respectively, for a household with an income of Tk. 10,000-Tk. 20,000 in comparison to a household with an income of  $\leq$ Tk. 10,000 (Table 5). Thus, the risk of poverty decreases as wetland people's income increases. A similar finding was reported by Imam et al. (2018) in their study conducted in a rural area of Bangladesh.

The availability and accessibility of agricultural land are regarded as crucial factors in poverty reduction in rural Bangladesh (Hossain et al., 2013; Kazal et al., 2010). Our study's findings indicate that households with marginally cultivable land (more than 50 decimals) had a 61% lower risk of falling below the LPL and a 51% lower risk of falling below the UPL than absolutely landless households. Similar results were found in the context of rural Mexico (Finan, 2005).

The potential of electricity access for poverty reduction in any region, especially wetland areas, is significant and inspiring. The fact is that having access to electricity allows a variety of activities due to its direct or indirect links to employment and high-return industries. Our findings indicate that

the prevalence of poverty among households is more likely to decline with the availability of electricity. More specifically, households with access to electricity had a 52% and 32% lower probability of lying below the LPL and UPL, respectively, than households without electricity. These outcomes agreed with the conclusion of a study carried out in Bangladesh by Khandker et al. (2009).

The identified predictors of the poverty condition of the wetland region of Bangladesh would help the stakeholders develop strategies to reduce poverty and target the SDGs. Some predictors of the poverty condition of the wetland region are common with that of the rural areas of Bangladesh. However, a few predictors of the poverty condition were found unique for the wetland region only. For example, the geographical region played a dominant role in the variation of poverty conditions. The wetland region lacks infrastructure facilities for education, health, and good transportation and communication systems. The services of government and non-government organizations are always hampered due to the stiff communication system. In addition, work opportunities throughout the year make it difficult for the wetland people to survive without poverty. There is no way to reduce poverty without increasing the income of the households. In this respect, NGO membership and access to micro-credit facilities might help them to come out of poverty to some extent. The family size of the wetland region is a concern, and attention is necessary to be aware of the inhabitants regarding the demerits of large families.

## CONCLUSION

This study estimated poverty and identified its risk factors for the northeastern wetland region of Bangladesh using the CBN method and BMLR models. The study's findings conclude that a significantly higher proportion of wetland households were below the poverty level, and the depth and severity of poverty were also considerably higher than national estimates for rural areas. The depth and severity of poverty thus confirm the social disadvantage of the wetland region. So, to reduce the country's overall poverty, the government should emphasize the wetland region's vulnerable groups. The findings lead to the conclusion that ten factors are associated with wetland people's lower poverty level, and eight factors are associated with the upper poverty level. Among them, geographical region, household size, ownership of agricultural land, per capita income, micro-credit facility, and NGO membership are notable. Furthermore, because the chosen factors are policy-driven, individual-level, and household-level concerns, the relevant authorities can readily execute programs to reduce poverty.

## Policy Implications

The findings of this study underscore the urgent need for several policy implications to reduce poverty in Bangladesh's wetland region. This study found that the incidence of poverty in wetland areas is considerably higher than national estimates for rural areas. National poverty policies sometimes fail to meet localized challenges, so

the government and non-government organizations can implement region-specific poverty alleviation programs. For instance, the government can assist the poor in wetland areas by involving the poor households in Social Safety Net Programs (SSNPs) and offering skill development training on climate-smart agriculture, floating vegetable cultivation, and duck rearing. Besides the government, several NGOs can take the initiative to reduce poverty in the wetland areas by increasing their training programs and making easy access to micro-credit facilities. Initiatives like the Integrated Development Program (IDP) of BRAC might help to reduce poverty in the wetland areas. It is documented that the IDP initiative implanted in the selected areas of Habiganj and Sunamganj districts found positive outcomes in poverty reduction (Ara et al., 2020). Therefore, this sort of program can be extended to other parts of the wetland region of Bangladesh. A “nature-based solution” strategy can improve opportunities for IGAs in the wetland region by utilizing resources like wetlands, rich soil, and biodiversity.

With a larger household, there is a greater chance of being poor. So, the family planning program might be reinforced to maintain the ideal family size in the wetland area. NGO member households are less likely to be poor than their non-member counterparts. Thus, the involvement of various NGOs might be beneficial in facilitating training on IGAs, such as tailoring, embroidery, handicrafts, and raising poultry and livestock. Landlessness

is closely associated with the likelihood of poverty. So, landless individuals living in wetland areas may be encouraged to engage in sharecropping. The availability of electricity effectively reduces poverty among households in Bangladesh’s wetland region. Therefore, the government can ensure access to electricity in the wetland region due to its direct and indirect links with IGAs. Implementing these measures immediately might help reduce poverty and achieve the targets of the SDGs, Perspective Plan, and Delta Plan.

### **Recommendation for Future Research**

A study may be conducted using recent household-level data to determine the potential IGAs for Bangladesh’s wetland region and accordingly make recommendations to the government.

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### **REFERENCES**

- Acharya, K. P., Khanal, S. P., & Chhetry, D. (2022). Factors affecting poverty in Nepal- A binary logistic regression model study. *Pertanika Journal of Social Science and Humanities*, 30(2), 641-663. <https://doi.org/10.47836/pjssh.30.2.12>

- Achia, T. N. O., Wangombe, A., & Khadioli, N. (2010). A logistic regression model to identify key determinants of poverty using demographic and health survey data. *European Journal of Social Sciences*, 13(1), 38-45.
- Alam, M. J. (2004). *Income and expenditure distribution pattern of Sunamganj haor area: Implications for poverty alleviation* [Working paper series]. Department of Economics and Social Science, BRAC University, 1-25. <https://dspace.bracu.ac.bd/xmlui/handle/10361/348>
- Alamgir, M. (1974). Some analysis of distribution of income, consumption, saving and poverty in Bangladesh. *Bangladesh Development Studies*, 2(4), 737-818.
- Amin, M. R., & Farid, N. (2005, October 19-20). *Food security and access to food: Present status and future perspective* [Conference presentation]. Ministry of Food and Disaster Management, Government of the People's Republic of Bangladesh, Dhaka, Bangladesh. 17-42.
- Ara, J., Shahed, S. S., Rahman, R., Ahmad, S., & Das, N. C. (2020). The 'fishnet approach' to livelihood improvement in depressed basins: Evidence from BRAC's Integrated Development Programme. *Development in Practice*, 30(4), 523-540. <https://doi.org/10.1080/09614524.2020.1719978>
- Bangladesh Bank. (2023). *Exchange rate of Taka. Dhaka, Bangladesh*. <https://www.bb.org.bd/en/index.php/econdata/exchangerate>
- Bangladesh Bureau of Statistics. (2000). *Rural poverty monitoring survey-1998*. Statistics and Informatics Division, Ministry of Planning, Government of the People's Republic of Bangladesh, Dhaka, Bangladesh.
- Bangladesh Bureau of Statistics. (2017). *Preliminary report of household income and expenditure survey-2016*. Statistics and Informatics Division, Ministry of Planning, Government of the People's Republic of Bangladesh, Dhaka, Bangladesh. [https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/b343a8b4\\_956b\\_45ca\\_872f\\_4cf9b2f1a6e0/HIES%20Preliminary%20Report%202016.pdf](https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/b343a8b4_956b_45ca_872f_4cf9b2f1a6e0/HIES%20Preliminary%20Report%202016.pdf)
- Bangladesh Bureau of Statistics. (2020a). *Statistical Yearbook Bangladesh-2019* (39th ed.). Statistics and Informatics Division, Ministry of Planning, Government of the People's Republic of Bangladesh, Dhaka, Bangladesh. [https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/b2db8758\\_8497\\_412c\\_a9ec\\_6bb299f8b3ab/2020-09-17-15-30-d0e641b2e659019f2aa44cbaf628caa8.pdf](https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/b2db8758_8497_412c_a9ec_6bb299f8b3ab/2020-09-17-15-30-d0e641b2e659019f2aa44cbaf628caa8.pdf)
- Bangladesh Bureau of Statistics. (2020b). *Yearbook of Agricultural Statistics-2019*. Statistics and Informatics Division, Ministry of Planning, Government of the People's Republic of Bangladesh, Dhaka, Bangladesh. [https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/1b1eb817\\_9325\\_4354\\_a756\\_3d18412203e2/2020-10-06-09-58-453f7e0a42348e05f0999979870ec07b.pdf](https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/1b1eb817_9325_4354_a756_3d18412203e2/2020-10-06-09-58-453f7e0a42348e05f0999979870ec07b.pdf)
- Bangladesh Bureau of Statistics. (2023). *Key findings: Household income and expenditure survey-2022*. Statistics and Informatics Division, Ministry of Planning, Government of the People's Republic of Bangladesh, Dhaka, Bangladesh. [https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/57def76a\\_aa3c\\_46e3\\_9f80\\_53732eb94a83/2023-04-13-09-35-ee41d2a35dcc47a94a595c88328458f4.pdf](https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/57def76a_aa3c_46e3_9f80_53732eb94a83/2023-04-13-09-35-ee41d2a35dcc47a94a595c88328458f4.pdf)
- Bangladesh Institute of Development Studies. (1997). *Methods of measuring poverty and trend*. In R. I. Rahman (Ed.), *Poverty and development: Bangladesh context*. BIDS.
- Bhuiya, A., Mahmood, S. S., Rana, A. K. M. M., Wahed, T., Ahmed, S. M., & Chowdhury, A. M. R. (2007). A multidimensional approach to measure poverty in rural Bangladesh. *Journal of Health, Population and Nutrition*, 25(2), 134-145.

- Bogale, A., Hagedorn, K., & Korf, B. (2005). Determinants of poverty in rural Ethiopia. *Quarterly Journal of International Agriculture*, 44(2), 101-120. <https://doi.org/10.5167/uzh-64170>
- Borko, Z. P. (2017). Determinants of poverty in rural households (The case of Damot Gale district in Wolaita Zone, Ethiopia) a household level analysis. *International Journal of African and Asian Studies*, 29, 68-75.
- Centre for Environmental and Geographic Information Services. (2012). *Master plan of Haor area* (Vol. 1, Summary report). Ministry of Water Resources, Bangladesh Haor and Wetland Development Board, Dhaka, Bangladesh. [https://dbhw.d.portal.gov.bd/sites/default/files/files/dbhw.d.portal.gov.bd/publications/baf5341d\\_f248\\_4e19\\_8e6d\\_e7ab44f7ab65/Haor%20Master%20Plan%20Volume%201.pdf](https://dbhw.d.portal.gov.bd/sites/default/files/files/dbhw.d.portal.gov.bd/publications/baf5341d_f248_4e19_8e6d_e7ab44f7ab65/Haor%20Master%20Plan%20Volume%201.pdf)
- Chowdhury, A. (2014). *Factors affecting productivity and efficiency of rice production in haor area in Bangladesh: Likely impact on food security* [Master's thesis, Bangladesh Agricultural University]. <https://catalog.ihsn.org/citations/42191>
- Farah, N. (2015). Impact of household and demographic characteristics on poverty in Bangladesh: A logistic regression analysis. *2015 Awards for Excellence in Student Research and Creative Activity*, Documents 3. [https://thekeep.eiu.edu/lib\\_awards\\_2015\\_docs/3](https://thekeep.eiu.edu/lib_awards_2015_docs/3)
- Finan, F., Sadoulet, E., & Janvry, A. D. (2005). Measuring the poverty reduction potential of land in rural Mexico. *Journal of Development Economics*, 77(1), 27-51. <https://doi.org/10.1016/j.jdeveco.2004.02.004>
- Food and Agriculture Organization of the United Nations. (2017, October 3). *GIEWS Update Bangladesh: Severe floods in 2017 affected large numbers of people and caused damage to the agriculture sector*. Reliefweb. <https://reliefweb.int/report/bangladesh/giews-update-bangladesh-severe-floods-2017-affected-large-numbers-people-and>
- Foster, J., Greer, J., & Thorbecke, E. (1984). A class of decomposable poverty measures. *Econometrica*, 52(3), 761-766. <https://doi.org/10.2307/1913475>
- Foster, J., Greer, J., & Thorbecke, E. (2010). The Foster-Greer-Thorbecke (FGT) poverty measures: 25 years later. *The Journal of Economic Inequality*, 8(4), 491-524. <https://doi.org/10.1007/s10888-010-9136-1>
- Foster, J., Seth, S., Lokshin, M., & Sajaia, Z. (2013). *A unified approach to measuring poverty and inequality: Theory and practice*. The World Bank. <https://documents1.worldbank.org/curated/en/281001468323965733/pdf/A-unified-approach-to-measuring-poverty-and-inequality-theory-and-practice.pdf>
- Hamoh, S., & Harun, A. (2021). Factors affecting poverty reduction in Yala Community Province Thailand. *International Journal of Advanced Research in Economics and Finance*, 3(1), 56-62.
- Hasan, M. R., & Hossain, M. Z. (2024). Factors affecting formal micro-credits in the wetland regions of Bangladesh: A discriminant analysis. *International Journal of Statistical Sciences*, 24(2), 85-96. <https://doi.org/10.3329/ijss.v24i2.77992>
- Haughton, J., & Khandker, S. R. (2009). *Handbook on poverty and inequality*. The World Bank. <https://documents1.worldbank.org/curated/en/488081468157174849/pdf/483380PUB0Po ve101OFFICIAL0USE0ONLY1.pdf>
- Hossain, M. Z. (2020). Measurement of food insecurity and poverty by different methods- Does the method matter? *International Journal of Statistical Sciences*, 20(1), 79-96.
- Hossain, M. Z., Kazal, M. M. H., & Uddin, J. (2013). *Rural-urban migration and its implications for food security in Bangladesh* [National Food

- Policy Capacity Strengthening Programme (NFPCSP) Project Report], FPMU-FAO, Government of Bangladesh. <https://catalog.ihsn.org/citations/26021>
- Imam, M. F., Islam, M. A., & Hossain, M. J. (2018). Factors affecting poverty in rural Bangladesh: An analysis using multilevel modelling. *Journal of the Bangladesh Agricultural University*, 16(1), 123-130. <https://doi.org/10.3329/jbau.v16i1.36493>
- Islam, M. N., Islam, S., & Ornob, M. S. S. (2024). Comparative impact of formal and informal microcredits on poverty alleviation in the haor region of Bangladesh: A socioeconomic analysis. *Asian Journal of Economics, Business and Accounting*, 24(6), 371-388. <https://doi.org/10.9734/ajeba/2024/v24i61368>
- Kazal, M. M. H., Rahman, S., & Hossain, M. Z. (2017). Poverty profiles and coping strategies of the Haor (Ox-bow lake) households in Bangladesh. *Journal of Poverty Alleviation and International Development*, 8(1), 167-191.
- Kazal, M. M. H., Villinueva, C. C., Hossain, M. Z., & Das, T. K. (2010). *Food security strategies of the people living in haor areas: Status and prospects* (National Food Policy Capacity Strengthening Programme Project Report). [https://fpmu.mofood.gov.bd/sites/default/files/files/fpmu.mofood.gov.bd/miscellaneous\\_info/05b6bab2\\_475b\\_40b0\\_aa30\\_62eb109e5bdb/2024-02-12-04-29-846f17c7416a6678aaafc536e92d80e4.pdf](https://fpmu.mofood.gov.bd/sites/default/files/files/fpmu.mofood.gov.bd/miscellaneous_info/05b6bab2_475b_40b0_aa30_62eb109e5bdb/2024-02-12-04-29-846f17c7416a6678aaafc536e92d80e4.pdf)
- Khandker, S. R., Barnes, D. F., & Samad, H. A. (2009). *Welfare impacts of rural electrification: A case study from Bangladesh* (Policy research working paper no. 4859). World Bank. <https://doi.org/10.1596/1813-9450-4859>
- Khondker, B. H., & Mahzab, M. M. (2015). *Lagging districts development: Background study paper for preparation of the seventh five-year plan*. [https://www.researchgate.net/publication/332567169\\_Lagging\\_Districts\\_Development\\_Background\\_Study\\_Paper\\_for\\_Preparation\\_of\\_the\\_Seventh\\_Five-Year\\_Plan](https://www.researchgate.net/publication/332567169_Lagging_Districts_Development_Background_Study_Paper_for_Preparation_of_the_Seventh_Five-Year_Plan)
- Korankye, A. A. (2014). Causes of poverty in Africa: A review of literature. *American International Journal of Social Science*, 3(7), 147-153.
- Meyer, D. F., & Nishimwe-Niyimbanira, R. (2016). The impact of household size on poverty: An analysis of various low-income townships in the Northern Free State region, South Africa. *African Population Studies*, 30(2), 2283-2295. <https://doi.org/10.11564/30-2-811>
- Mia, M. (2021). Equal access to primary education in environmentally challenged area of Bangladesh: A study into the Tanguar Haor of Sunamganj district. *Social Science Review*, 38(1), 175-202. <https://doi.org/10.3329/ssr.v38i1.56530>
- Ministry of Law. (2013). *Bangladesh Water Act, 2013. Justice and Parliamentary Affairs, Legislative and Parliamentary Affairs Division, Government of the People's Republic of Bangladesh*. [http://oldweb.lged.gov.bd/uploadeddocument/UnitPublication/1/840/Water%20Act%202013%20\(English\).pdf](http://oldweb.lged.gov.bd/uploadeddocument/UnitPublication/1/840/Water%20Act%202013%20(English).pdf)
- Ministry of Water Resources. (2016). *Classification of wetlands of Bangladesh* (Vol. 1, Main Report). Department of Bangladesh Haor and Wetland Development, Government of the People's Republic of Bangladesh, Dhaka, Bangladesh. [http://dbhwd.portal.gov.bd/sites/default/files/files/dbhwd.portal.gov.bd/page/7b217360\\_7c6b\\_4cf3\\_aa2f\\_909e31dce458/Volume%201%20Final%20Report.pdf](http://dbhwd.portal.gov.bd/sites/default/files/files/dbhwd.portal.gov.bd/page/7b217360_7c6b_4cf3_aa2f_909e31dce458/Volume%201%20Final%20Report.pdf)
- Negash, T., Etsay, H., & Aregay, M. (2019). Factors influencing households' poverty status: Evidence from selected rural districts of Tigray region, Northern Ethiopia. *Journal of the Drylands*, 9(2), 1015-1025.
- Rahman, H. M. T., Hickey, G. M., & Sarker, S. K. (2015). Examining the role of social capital



- in community collective action for sustainable wetland fisheries in Bangladesh. *Wetlands*, 487-499. <https://doi.org/10.1007/s13157-015-0635-5>
- Rahman, R. I., Begum, A., & Bhuyan, H. R. (2012). *Household food insecurity in Bangladesh: Concepts, estimates and determinants* (Research monograph No. 22). Bangladesh Institute of Development Studies, Dhaka, Bangladesh. [https://www.researchgate.net/publication/268334700\\_Household\\_Food\\_Insecurity\\_in\\_Bangladesh\\_Concepts\\_Estimates\\_and\\_Determinants](https://www.researchgate.net/publication/268334700_Household_Food_Insecurity_in_Bangladesh_Concepts_Estimates_and_Determinants)
- Rahman, S. (1999). The impact of technological change on income distribution and poverty in Bangladesh agriculture: An empirical analysis. *Journal of International Development*, 11(7), 935-955. [https://doi.org/10.1002/\(SICI\)1099-1328\(199911/12\)11:7<935::AID-JID642>3.0.CO;2-8](https://doi.org/10.1002/(SICI)1099-1328(199911/12)11:7<935::AID-JID642>3.0.CO;2-8)
- Ravallion, M., & Sen, B. (1996). When methods matter: Monitoring poverty in Bangladesh. *Economic Development and Cultural Change*, 44(4), 761-792. <https://doi.org/10.1086/452244>
- Sen, A. (1987). *On ethics and economics*. Blackwell.
- Shaw, R. (2006). Critical issues of community based flood mitigation: Examples from Bangladesh and Vietnam. *Journal of Science & Culture*, 72(1-2), 1-17.
- Townsend, P. (1979). *Poverty in the United Kingdom: A survey of household resources and standards of living*. Allen Lane Publisher. <https://doi.org/10.1525/9780520325760>
- United Nations Development Program. (2017). *Human development report 2016: Human development for everyone*. <https://doi.org/10.18356/b6186701-en>
- United Nations Development Program. (2023). *Unstacking global poverty: Data for high impact action: Multidimensional Poverty Index 2023*. <https://doi.org/10.18356/9789210028325>
- United Nations Educational, Scientific and Cultural Organization. (1997). Position paper. In *Microcredit Summit* (pp. 1-8). UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000111669>



## Unveiling Dynamics of Student Engagement in Thesis Supervision

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### ABSTRACT

Student engagement with supervisory feedback plays a crucial role in higher education, but the process often presents complexities that are not fully understood. Despite the importance and inherent challenges, student engagement remains underexplored and lacks research at the undergraduate level. Therefore, this research aimed to thoroughly examine how undergraduate students engaged with supervisory feedback during the thesis writing process. It included five students who had completed their undergraduate thesis in the English Education Department at an Indonesian college. Data was collected through semi-structured interviews, think-aloud protocols, and text analysis. The results showed that all students exhibited high affective, cognitive, and behavioral engagement levels with many positive emotions, such as satisfaction and motivation. Furthermore, this research contributed to the existing body of knowledge by underscoring the critical role of affective engagement in fostering cognitive and behavioral outcomes. It also outlined the need for adaptive supervisory models, emotional intelligence training, and the creation of supportive environments. These insights held relevance for academics, university faculty, educational administrators, and students included in the thesis supervision process. Due to the limited number of participants, the research required cautious interpretation, and generalizations should be carefully asserted. Consequently, the analysis suggested the adoption of adaptive supervisory models, the incorporation of emotional intelligence training, and the establishment of supportive environments. Further research with a larger sample size and broader scope was also suggested to validate and expand the results.

*Keywords:* Engagement, Indonesian students, supervisory feedback, thesis

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### INTRODUCTION

Supervisory feedback is a crucial aspect of higher education, helping undergraduate and postgraduate students to assess proficiency, enhance research skills, and develop academic writing abilities (Basturkmen

et al., 2014; Carter & Kumar, 2017; Xu, 2017; Xu & Hu, 2020). Specifically, it guides students in understanding academic conventions, becoming proficient members of the disciplines (Kumar & Stracke, 2007; Li et al., 2017), fostering independent learning (Bitchener et al., 2010), and ensuring the timely completion of a thesis (Basturkmen et al., 2014). However, students often face challenges in effectively engaging with feedback due to insufficient self-regulation and difficulty interpreting the feedback provided (Carless et al., 2011; Sadler, 2010).

Student engagement with feedback remains a complex and not fully understood process, with limited research on factors that enhance engagement (Bastola, 2022; Carless et al., 2011; Liu & Carless, 2006; Yang & Carless, 2013). In this context, the supervisor can significantly influence engagement by shaping perceptions, developing a supportive environment, and offering varied types of feedback (Handley et al., 2011; Lunt & Curran, 2010). However, most research focuses on general feedback engagement rather than second language (L2) writing contexts. The existing research also concentrates on postgraduate students, leaving a gap in understanding how undergraduates engage with supervisory feedback (Bastola, 2022; Geng & Yu, 2022; Sun & Trent, 2020; Wang & Lee, 2021; Xu et al., 2021; Yu et al., 2018; Yu & Jiang, 2020; Z. Zhang, 2020).

This current research aims to fill this gap by examining how undergraduate students engage with supervisory feedback in the context of L2 thesis writing in Indonesia,

focusing on engagement's affective, cognitive, and behavioral dimensions. By exploring these aspects, the present research contributes to the literature by providing new insights into undergraduate engagement with supervisory feedback in an underexplored setting. Additionally, the analysis offers practical strategies for enhancing engagement and supporting academic success by providing practical recommendations based on the following questions.

1. How do undergraduate students engage effectively with supervisory feedback during thesis writing?
2. How do undergraduate students engage cognitively with supervisory feedback during thesis writing?
3. How do undergraduate students engage behaviorally with supervisory feedback during thesis writing?

## LITERATURE REVIEW

### The Concept of Student Engagement with Supervisory Feedback

In academic research, student engagement with feedback has been explored from various perspectives. Early studies focused on student perceptions (Ferris, 1995; Lee & See, 2004), revision behaviors (Hyland, 2003), and cognitive processes related to feedback (Storch & Wigglesworth, 2010). Subsequently, Ferris et al. (2013) emphasized strategies and self-monitoring in handling feedback. Svalberg (2009) also observed that engagement included students actively participating in the learning process.

Engagement with feedback generally included stages such as collecting, reading, reflecting on, and acting upon feedback (Price et al., 2011). This process included both accepting and rejecting feedback after reflection. However, a lack of visible response might have been misinterpreted as disengagement (Handley et al., 2011). Engagement could also be affective, behavioral, or cognitive (Fredricks et al., 2004; Handley et al., 2011; Yu et al., 2018).

More specifically, Ellis (2010) defined engagement with feedback as emotional, behavioral, and cognitive responses to feedback. Affective engagement includes positive emotions, such as motivation and interest, as well as negative emotions, such as anxiety and irritation (Finn & Zimmer, 2012). Positive attitudes and confidence often led to greater use of feedback (Z. Zhang & Hyland, 2018), while negative emotions could lower motivation (Yu & Jiang, 2020).

Cognitive engagement included deep learning and self-regulation (Fredricks et al., 2004; Philp & Duchesne, 2016), depending largely on how well students understood feedback, which varied with the clarity (Han & Xu, 2021; Z. Zhang & Hyland, 2018; Zheng & Yu, 2018). Additionally, behavioral engagement included active participation, effort, and persistence (Fredricks et al., 2004; Skinner & Pitzer, 2012). Some students revised their work to improve it, while others might not engage with feedback when no value was observed (Xu, 2017; Yu et al., 2018; Zheng, Yu, & Liu, 2020). Based on this perspective, the present

research defined affective engagement as student emotions and interest in feedback, behavioral as actions in using feedback, and cognitive as the mental processes of understanding and applying feedback (Ellis, 2010; Fredricks et al., 2004; Han & Hyland, 2015; Storch & Wigglesworth, 2010).

### **Empirical Studies on Student Engagement with Supervisory Feedback**

Research into written corrective feedback (WCF) underscored the significance of student engagement across affective, behavioral, and cognitive dimensions. Despite the significance, few studies addressed these dimensions simultaneously. For example, Zheng and Yu (2018) showed that lower-proficiency L2 Chinese students exhibited positive affective engagement with WCF. However, the cognitive and behavioral engagement remained limited, negatively affecting language accuracy. Han and Hyland (2015, 2019) emphasized dynamic interaction among these dimensions and outlined the crucial role of student agency.

Mahfoodh (2017) observed that affective responses, including acknowledgment and dissatisfaction, significantly influenced how EFL (English as a Foreign Language) students perceived and used WCF. Similarly, Yu et al. (2018) observed improved academic writing through peer feedback engagement among master students. Z. Zhang (2017) and Z. Zhang and Hyland (2018) further identified that student beliefs, proficiency, and motivation impacted engagement with automated feedback. At

the undergraduate level, Ali et al. (2015) found that early interventions enhanced student perceptions of and engagement with feedback. De Kleijn et al. (2013) also reported that positive feedback and clear guidance improved satisfaction and learning outcomes. Zheng and Yu (2018) outlined that lower proficiency negatively affected cognitive and behavioral engagement with feedback. Furthermore, Han and Xu (2021) discussed the multifaceted nature of feedback literacy and its influence on engagement.

F. Zhang et al. (2023) further showed that EFL undergraduates exhibited increased engagement across multiple feedback cycles. Similarly, Z. Zhang and Hyland (2022) showed that integrating automated, peer, and teacher feedback effectively fostered engagement in academic writing. Dang et al. (2022) and Man et al. (2021) also emphasized that specific tasks, including feedback-correction practices and rebuttal-writing assignments, significantly influenced engagement.

In studies considering graduate students, Saeed et al. (2021), Zheng, Yu, Wang, and Zhang (2019), and Lei and Pramoolsook (2020) suggested that engagement with feedback varied depending on the type of feedback and the stage of the writing process. For example, Jin et al. (2022) found that cognitive, affective, and behavioral engagement in peer feedback substantially enhanced postgraduate writing performance. Xu et al. (2021) further emphasized that negotiating cultural values influenced doctoral student engagement

with feedback, while Geng and Yu (2022) reported emotional factors playing a critical role in feedback engagement. In this context, Stracke and Kumar (2016) and Carter and Kumar (2017) asserted that expressive feedback could either motivate or demotivate students, depending on emotional responses.

Research on technological applications in feedback further offered valuable insights. Fernández-Michels and Fornons (2021) showed that online students engaged with WCF through self-regulatory mechanisms. Similarly, Hafour and Alwaleedi (2022) found that cloud-based collaborative writing influenced EFL students' emotional and behavioral engagement. Shi (2021) showed that engagement varied with feedback sources and genres, emphasizing the complexity of engagement influenced by contextual and individual factors.

The literature showed that student engagement with feedback was a complex process influenced by individual differences, feedback types, contexts, and emotions. However, limited research exists on undergraduate engagement with supervisory feedback during thesis supervision. Most articles focused on general coursework or graduate-level feedback, overlooking the unique dynamics of undergraduate thesis supervision. This research aimed to address the gap by examining how undergraduates engaged with supervisory feedback and how it supported thesis completion. The results focused on providing insights to improve supervisory practices at the undergraduate level.

## METHODS

### Context and Design

This research was conducted as a 6-month fieldwork to investigate undergraduate student engagement with supervisory feedback during thesis writing. It focused on two main considerations: (1) the crucial role of student engagement in effective thesis supervision and (2) the limited research on this topic, primarily on master's and doctoral students. A phenomenological case study explored how students engage with supervisory feedback during thesis writing. This method allowed for an in-depth understanding of student experiences, emotions, and perceptions of supervisory feedback and its impact on engagement. Data were collected through text revision, think-aloud protocols that captured participants' real-time thoughts during tasks (Young, 2005), and semi-structured interviews, providing space for participants to freely share experiences and perspectives (Newman, 2016).

### Participants

Before conducting empirical fieldwork, the researchers held an initial meeting with five students who were in the process of writing their thesis. During this meeting, the researchers explained the informed consent form, emphasizing the importance of confidentiality and the intended use of the data for publication purposes. Students were also informed of the right to withdraw from the research at any given time, but all agreed to participate voluntarily.

In this phenomenological research, the sample size of five participants was considered sufficient for three key reasons. These included (1) participants provided diverse perspectives and experiences, leading to rich and comprehensive data; (2) the research focused on individual experiences rather than generalizability, allowing for an in-depth exploration of each participant's insights; and (3) the limited resources available necessitated a manageable sample size to ensure the research could be completed in the available constraints.

The authors or researchers referred to as RS, conducted interviews with all participants who had completed thesis proposals and were preparing for the thesis examination. Participants were coded as follows: Student 1 (S1), Student 2 (S2), and Student 4 (S4) were at an upper-intermediate level, as well as Student 3 (S3) and Student 5 (S5) were at an intermediate level. Additionally, the research acknowledged the participants' proficiency levels, which influenced their engagement with feedback, further supporting the phenomenological method.

### Data Collection

Empirical data were collected through semi-structured interviews, think-aloud protocols, and text analysis. The data on student engagement with supervisory feedback were gathered using these methods, informed by previous research. Yu et al. (2018) for effective engagement, Fredricks et al. (2004) and Skinner and Pitzer (2012) for behavioral

engagement, Fredricks et al. (2004), Philp and Duchesne (2016), and Skinner and Pitzer (2012) for cognitive engagement.

During the semi-structured interviews, each question was customized to participants' personal experiences (Table 1). Probe questions were used to explore responses more deeply and uncover additional insights, which typically lasted between 45 and 60 minutes. The interviews were recorded, reviewed, and edited with the consent of the participants and were conducted in both Indonesian and English

to ensure accurate understanding and representation, specifically for terms that might not translate well into English. The data presented in the research article are based on the translated version of these interviews.

A think-aloud protocol was further adopted to corroborate the interview results. In the think-aloud protocols, participants were instructed to articulate their thoughts consistently as students received supervisory feedback in the thesis writing process (Table 2).

Table 1  
*Interview guideline*

<b>Dimensions of Engagement</b>	<b>Questions</b>
Affective	<p>Can you describe a specific instance when feedback from your supervisor motivated you to improve your thesis and how it affected your confidence and motivation?</p> <p>Can you give an example of a time when you received negative feedback, detailing how you felt, how you handled it, and how it influenced your motivation and confidence?</p> <p>Can you describe a specific instance when you built trust with your supervisor through feedback?</p>
Cognitive	<p>Can you describe a specific instance when feedback from your supervisor required you to think critically about your thesis and how you reflected on and incorporated this feedback?</p> <p>How do you use strategies such as relating new information to prior knowledge or generating examples in your thesis writing, specifically when responding to feedback?</p> <p>Can you describe a time when you faced a challenge in your thesis writing and used feedback from your supervisor to overcome it?</p>
Behavioral	<p>Can you provide an example of how you demonstrated high levels of attendance and participation in supervisory meetings and how you responded to feedback promptly and effectively?</p> <p>How do you actively engage during meetings with your supervisor, communicate progress, and demonstrate persistence and accountability in your thesis writing?</p> <p>Can you describe a specific instance when you made significant changes to your thesis based on feedback and effectively managed your time to meet deadlines?</p>



Table 2  
*Think-aloud protocol*

<b>Dimensions of Engagement</b>	<b>Protocols</b>
Affective	Review a recent piece of feedback received from the supervisor on the thesis.  Read feedback out loud and describe the initial emotional reaction to it. Explain the reason for the feeling.  Summarize your thoughts on feedback and your engagement with it.  Describe how you feel now that you have thought more deeply about feedback and how you plan to move forward.
Cognitive	Re-read feedback more slowly and explain what you think your supervisor is trying to communicate.  Describe how you interpret feedback and whether you have any questions or uncertainties about it.
Behavioral	Describe how you plan to act on the feedback they received. Describe as specifically as possible how you will address the issues raised in feedback and how you will incorporate feedback into their writing process.

## Data Analysis

The interview results and think-aloud protocols were transcribed verbatim to ensure accuracy, and pseudonyms were used to maintain anonymity. The data were analyzed using Braun and Clarke's (2006) thematic coding analysis to identify common patterns and evolving themes.

Initially, the researchers became familiarized with the data, focusing on language choices and conversational style. Criteria for affective engagement (Yu et al., 2018), behavioral engagement (Fredricks et al., 2004; Skinner & Pitzer, 2012), and cognitive engagement (Fredricks et al., 2004; Philp & Duchesne, 2016; Skinner & Pitzer, 2012) were applied as a triangulation theory to guide the analysis. This method helped refine patterns and identify the final themes.

The data were sorted and categorized based on recurring patterns relevant

to the research question. The authors conducted the coding process and reached a consensus through discussions during coding and interpretation. The researcher used member-checking and triangulation to ensure trustworthiness in analysis and interpretation. Member-checking included not only the authors but also participants, who were asked to confirm the clarity and accuracy of the data. These methods were used to verify the accuracy of the data analysis (Harreveld et al., 2016).

## RESULTS AND DISCUSSION

### Interview Results

#### *Affective Engagement*

The interviews' analysis showed that student affective engagement played a significant role in shaping their experiences and responses to feedback during thesis supervision. Specifically, emotions such as

anxiety, motivation, fear, and preparedness directly influenced how students perceived and engaged with supervisor feedback.

For instance, S1 showed strong affective engagement with feedback, which helped to reduce anxiety and stimulate motivation. The student stated, "I find the motivation more convincing because I struggle with high anxiety. So, I need affirmations to help me stay motivated and complete my thesis." Additionally, S1 also emphasized the importance of being emotionally prepared and maintaining neutrality before supervision, stating, "Before attending supervision, I usually prepare myself and aim to remain neutral."

S2 consistently maintained affective engagement with feedback from the supervisor, reflecting motivation and appreciation for direct and frequent guidance. The student explained, "This supervision model was loved because the supervisor provided direct feedback and requested revisions immediately. Addressing these revisions as quickly as possible was ensured."

S3 welcomed feedback from the supervisor, which fostered a supportive environment. However, emotional responses varied, ranging from calmness to frustration, reflecting the deep engagement with feedback. The student asserted, "When it was related to the thesis, I usually calm down first. Sometimes I delay, but other times, I take care of it immediately." Despite these fluctuations, the student emphasized how feedback was a source of motivation, stating, "Feedback from the supervisor was

a source of motivation during the thesis writing process."

S4 further showed affective engagement by recognizing the value of feedback, even when facing challenges or disagreeing with decisions. The student stated, "Yes, it was a bit challenging because I needed to revise the writing. The interview structure was based solely on observations, for it required changes." Despite these difficulties, the student remained grateful for positive outcomes, stating, "Thank God supervisor was satisfied with the revision. Both parties felt that the results were better than before."

Finally, S5 showed strong emotional engagement, with feedback from supervisors significantly enhancing motivation. The student shared, "The Supervisor usually says, 'Come on, keep up the enthusiasm to finish quickly, which significantly fostered motivation.'"

### **Cognitive Engagement**

The interview emphasized student cognitive engagement with supervisory feedback, with proactive efforts to enhance understanding and application of feedback. For instance, S1 showed significant cognitive engagement by actively seeking clarification from supervisors and peers to improve understanding of feedback. The student stated, "During the analysis of the first finding, I went to the supervisor to ask questions and clarify the analysis I had done."

S2 further showed cognitive engagement by consistently evaluating feedback and decisions. The student reflected on the

research choices, explaining, "The basis of the research came from wondering why certain students were smarter than others, despite the same teacher." Additionally, S3 actively engaged in cognitive processes by reflecting on feedback, recognizing comprehension challenges, and using strategies such as cross-checking and seeking additional references. The student elaborated, "Some of the writings needed to be cross-checked again because supervisor was training me to be independent. I had to find additional references and discuss the discovery with other lecturers."

S4 exhibited cognitive engagement through the understanding of feedback. The student mentioned, "Oral feedback could sound confusing at first, but it was easy to understand." Furthermore, S5 also showed cognitive engagement by reflecting on feedback even when it required extra effort. The student commented, "It was related to writing direct and indirect quotations. I reviewed the references again and had to put extra thought into it."

### **Behavioral Engagement**

The interview results showed that students exhibited varying levels of behavioral engagement with supervisory feedback, as evidenced by their actions and responses. For instance, S1 exhibited behavioral engagement by actively filtering feedback and using it to revise a thesis. The student explained, "After receiving feedback, I filtered it according to the suggestions of supervisor." Additionally, the frequent meetings with supervisors underscored

engagement with the following comment, "I usually met with my supervisor more than three times a week and with the co-supervisor once a week."

S2 exhibited behavioral engagement by actively communicating with supervisors to provide progress updates and address feedback. The student stated, "I usually followed up immediately and informed supervisor when I had completed the revisions." Correspondingly, S3 actively engaged with feedback by responding promptly, making revisions, and participating in the guidance process. The tendency to pursue clarification and discuss feedback represented student behavioral engagement with the following statement, "Even though supervisor usually provided descriptions, I often still met with supervisor for further clarification."

S4 was behaviorally engaged by clarifying feedback on data analysis and actively participating in the revision process. The student mentioned, "I clarified with the supervisor by discussing data analysis in Chapter 4, specifically regarding the categorization in the discussion section." S4 also actively sent revised drafts and scheduled guidance, saying, "Usually, I sent revised drafts through WhatsApp and then asked when the supervision could be scheduled." Finally, S5 showed behavioral engagement by adapting to changing circumstances and maintaining focus. The student asserted, "Perhaps the distraction was related to fluctuations in the motivation to work on the thesis."

Based on the evidence, the interviews showed that affective engagement played a

crucial role in shaping student responses to supervisory feedback, impacting motivation, trust, and progress. The interviews also showed cognitive engagement, with students seeking clarification, evaluating decisions, and applying feedback. Additionally, they emphasized behavioral engagement, including active revision, frequent communication, and adaptive strategies.

### **Think-aloud Protocol Results**

#### ***Affective Engagement***

The think-aloud protocol results further showed that students exhibited affective engagement with supervisory feedback, emphasizing the emotional responses and attitudes toward the feedback process. For instance, S1 exhibited affective engagement by expressing an understanding of feedback, appreciation, and willingness to improve. The student stated, "I understand why my supervisor gave me this feedback. It makes me feel more motivated to revise and improve the chapter."

S2 further showed a strong emotional connection to feedback, reacting with surprise and happiness. The student remarked, "I feel happy because I see that all of supervisors are working to improve my undergraduate thesis, which helps make it better." Additionally, S3 was emotionally engaged with feedback and displayed strong motivation to complete a thesis. The student stated, "I'm motivated to finish the research."

S4 exhibited an effective engagement despite expressing frustration. The student said, "It was a lot of effort as the reason was unknown." However, S4 showed

determination and resilience by accepting mistakes and following supervisor suggestions, reflecting, "I have to do my best, but in the middle of it, you have to be aware that okay, it is not that easy to just finish this way."

Lastly, S5 showed a range of emotional reactions to feedback, including nervousness, panic, embarrassment, and relief. The student described the feelings as follows: "I felt nervous about the corrections. I think my supervisor wanted to understand the speaking topic I was researching in my thesis. I also panicked when asked to add another theory to Chapter 2."

#### **Cognitive Engagement**

The think-aloud protocol provided further evidence of student cognitive engagement with supervisory feedback, showing the effort and approach to addressing feedback. For instance, S1 showed cognitive engagement by effectively interpreting feedback and identifying areas for improvement. The student asserted, "I think supervisor suggested that I add more citations or statements from experts and rephrase some of the wording to make it clearer."

S2 further recognized writing skill issues and the need for greater attention to detail. The student stated, "As I mentioned earlier, this feedback suggested that the writing skills still needed improvement. My supervisor advised me to enhance my thesis, avoid mistakes, and make the writing more concise and readable." Additionally, S3 adopted a proactive cognitive method by

emphasizing extensive reading to improve comprehension. The student remarked, "I will practice and keep trying because I believe that the more I read, the fewer revisions I will need." This reflected the commitment to deepening understanding through extensive literature review.

S4 showed cognitive engagement by analyzing feedback and addressing specific areas for revision, such as prioritizing data sources and integrating observations. The student reflected, "I have to revise all of this information and maybe I will just try to revise thesis." This showed student awareness of supervisor concerns and the critical evaluation of feedback.

Lastly, S5 exhibited careful consideration of the supervisor's intentions and the reasoning underlying specific feedback points. The student said, "I believe my supervisor wanted to understand my reasons for choosing this topic, align my theories with my research objectives, and use primary sources to enhance the relevance of my research."

### **Behavioral Engagement**

The think-aloud protocol results provided further insights into student behavioral engagement with supervisory feedback, explaining the planned actions and commitment to making revisions. For instance, S1 showed behavioral engagement by outlining the actions to improve data processing and revise wording. The student stated, "I will learn more about how to process the data, ensuring that everything in the chapter is focused on the topic. Finally, I

will review and revise the wording to make it clearer." This engagement was evident in the motivation to implement changes, which was observed in the following comment, "I feel more motivated to revise the chapter and improve it. I'm going to take some time to consider how I can implement the changes my supervisor suggested."

S2 further described the plan to address and improve the thesis by systematically fixing issues and confirming unclear points. The student stated, "I will address this feedback after fixing everything and confirming any unclear points." The student recognized the need for improvement in writing skills and addressed specific issues with the following comment, "All feedback shows that my writing skills need improvement. I missed some critical points in my thesis. My supervisor mentioned that my writing is quite weak, I need to make it more concise and readable."

Additionally, S3 showed behavioral engagement through commitment to practice and persistence. The student stated, "I am motivated to finish my thesis, but one frustrating aspect is my lack of research knowledge. Despite this limitation, I will not give up. I will practice, persist, and try because I believe that the more I read, the better I will understand and address the revisions." This proactive method included discussions with peers and supervisors, as observed in the following comment, "I also discussed my thesis with several people, including friends, lecturers, and others, to strengthen my understanding and clarify what I have learned from my reading."

S4 detailed the plans to support feedback with additional information and systematic revisions in the following comment, "Then I need to support that with results from the interview sections and provide additional information from other sources." As observed in the following comment, the student also planned to revise the thesis systematically: "Perhaps after I finish the fourth chapter and address the grammatical errors, I will make the necessary revisions."

Finally, S5 showed behavioral engagement, including revising chapters, adding theories, and reorganizing content, as observed in the comment, "I examined additional theories related to the topic and included the topic in Chapter 2. I revised Chapter 5 and the abstract, ensured the paragraphs in Chapter 5 correlated with the research objectives, and added more theories and references to Chapter 2." The student showed a high degree of commitment to implementing feedback and making necessary changes, as suggested in the following discussion, "After understanding supervisor requests, I will examine additional sources and incorporate the discovery into thesis. I will also make revisions based on the corrections provided and thoroughly

check and recheck the content to ensure that thesis is relevant to the research."

Based on the evidence, the think-aloud protocol results emphasized student affective engagement with supervisory feedback, showing varied emotional responses and how these reactions impacted the motivation and method of revisions. Additionally, the results showed student cognitive engagement through the efforts to understand, address, and effectively apply feedback. It further outlined behavioral engagement, which includes systematic revisions, proactive planning, and consistent communication with supervisors.

**Text Analysis**

The analysis of thesis drafts for students S1, S2, S3, S4, and S5 showed a consistent commitment to incorporating feedback to enhance the thesis, as detailed in Table 3.

Table 3 showed that all students actively engaged with supervisory feedback by incorporating most feedback into a thesis, which reflected a strong commitment to improvement. For instance, S3, which received the most feedback, also used the highest number of feedback points, showing a high engagement level with the

Table 3  
*The use of supervisory feedback*

Students	Total feedback	Used feedback	Ignored feedback	Deleted feedback
S1	26	22	3	1
S2	30	25	4	1
S3	112	96	2	4
S4	46	60	2	0
S5	55	51	4	0

supervisory process. Clear feedback was generally incorporated, while ambiguous feedback was often disregarded or deleted to avoid further questioning from the supervisor or examiner. This emphasized a nuanced dynamic in the student-supervisor relationship. Generally, these results showed affective engagement through emotional responses, cognitive engagement using the analysis and understanding of feedback, and behavioral engagement via the active incorporation of feedback. Consequently, the analysis exhibited high student engagement across all dimensions.

## DISCUSSION

The research results showed that students exhibited high effective, cognitive, and behavioral engagement when receiving feedback on the thesis from a supervisor. Specifically, emotions such as anxiety, motivation, fear, and preparedness directly shape how students engage with feedback. Students exhibit higher levels of affective engagement compared to cognitive and behavioral engagement. This is consistent with the findings of Bastola and Hu (2023), who indicated that affective engagement has a significant influence on cognitive and behavioral responses.

In this context, students predominantly report positive emotions, such as satisfaction, rather than negative ones. This contrasted with the results of Geng and Yu (2022), which reported a higher prevalence of negative emotions. Additionally, van Tienoven et al. (2022) emphasized that student satisfaction with supervisor support

was a critical predictor of well-being. Affective engagement during research significantly influences student feedback experiences, affecting attitudes and behaviors, including anxiety, motivation, fear, and preparedness (Hill et al., 2021). Recognizing and addressing these emotions in formal feedback scenarios is essential, as the emotions are inherent to the learning process (Karakose et al., 2023; Värlander, 2008). Emotions also play a crucial role in students' willingness to engage with feedback, and understanding students can improve their assessment of learning (Rowe, 2017). Alleviating threats to student self-image in feedback can positively impact self-confidence and perception of emotional support, while feedback anxiety has the opposite effect (Hadden & Frisby, 2019).

The interview analysis shows that affective engagement plays a crucial role in student experiences with feedback and guidance during the thesis. This is correlated with Zheng, Yu, and Liu (2020), who reported that engagement was distinctively extensive in the affective aspect. Student emotions such as anxiety, motivation, fear, and a sense of preparedness directly influence how students perceive and engage with supervisor feedback (Han & Hyland, 2019).

A range of research further underscores the significant impact of student emotions on engagement with feedback and research supervision. Värlander (2008) and Rowe (2017) emphasized the importance of acknowledging and addressing these emotions, and Värlander suggested specific

learning activities for this purpose. Parker and Winstone (2016) and Hill et al. (2021) further outlined the impact of student perceptions and emotional responses on feedback engagement, emphasizing the need for a holistic method of research supervision that considers student emotional experiences. Integrating formative assessment practices in feedback processes can also enhance student engagement and learning outcomes by creating an iterative teaching environment. Regular checkpoints for reflection and targeted input promote deeper cognitive processing and help address emotional concerns, allowing students to express anxieties and uncertainties during the research journey (Jin et al., 2022).

In this context, meeting with the thesis supervisor requires mental preparedness, specifically when deadlines are missed due to various factors. McClure (2005) emphasized the significance of a supportive and culturally sensitive supervisory relationship, as it could help mitigate negative experiences. Styles and Radloff (2001) also stressed the need for a self-regulatory and synergistic model of supervision that includes shared commitment, a common language, effective management, and emotional support. Furthermore, Macfadyen et al. (2019) outlined the supervisor's role in assessing student readiness, motivation, and individual situations, balancing the functions of facilitating, nurturing, and maintaining standards. De Kleijn et al. (2015) also emphasized the importance of adaptivity in research supervision,

suggesting that supervisors should assess student characteristics and customize the support strategies accordingly. This research underlines the importance of fostering a supportive, culturally sensitive, and adaptive supervisory relationship to help students overcome obstacles related to missed deadlines and mental preparedness.

This research further explores emotional reactions to feedback and the gradual development of trust with supervisors over time. These results correlated with Zheng, Yu, and Liu (2020) and de Kleijn et al. (2014), which outlined the importance of trust and a positive relationship in student engagement with feedback, where Zheng specifically asserted the role of reassurance and selective adoption of feedback. Similarly, Inouye and McAlpine (2017) further emphasized the role of individual agency in responding to feedback with a focus on the development of scholarly identity. Carter and Kumar (2017) also added a practical dimension, discussing the tension between timely thesis completion and the development of academic competencies, as well as the need for honest and rigorous feedback. The research shows the intricate interplay between emotional reactions, trust, and the formation of scholarly identity in student-supervisor relationships.

All students are found to exhibit cognitive engagement with supervisory feedback, showing a strong understanding of feedback provided by the thesis supervisor. The results were supported by Zheng, Yu, and Liu (2020), who asserted that the ability of students to seek clarification



for challenging feedback from the thesis supervisor was a key indicator of cognitive engagement. This engagement is further influenced by student agency in responding to feedback, which is connected to the development of the scholarly identity (Inouye & McAlpine, 2017). Student perceptions of feedback, particularly the focus, objective-relatedness, and elaboration, also play a role in satisfaction with supervision and perceived learning (de Kleijn et al., 2013).

This present research found that students behaviorally engaged with supervisory feedback by actively participating, committing, and showing a proactive method. The examination of thesis drafts and interviews shows that student engagement with feedback is evident through the adoption. All students show varying levels of engagement by selectively incorporating, ignoring, or removing feedback. High adoption rates suggest strong engagement and a proactive method of thesis revision. The results correlate with previous research, including Kim and Kim (2017), Saeli and Cheng (2019), Yang et al. (2006), and Z. Zhang and Hyland (2018). According to this research, the supervisor as the source of feedback is a trustworthy resource that students can rely on, prompting feedback to be effective. Instances of ignored and deleted feedback show that students carefully evaluate the relevance. Generally, students are committed but selective in applying feedback to enhance the quality and comprehensiveness of the thesis. Various research has explored this topic, and Zheng, Yu, and Liu (2020) found that

students engaged with feedback by seeking reassurance, trusting the expertise of their supervisor, and selectively following advice. Parker and Winstone (2016) and Bastola (2022) also emphasized the importance of student perceptions and the need for interventions to support engagement with feedback. This research shows that student engagement with supervisory feedback is influenced by perception, feedback nature, and support, leading to effective communication, revised work, meeting deadlines, and incorporating feedback into the thesis.

Generally, this research offers a more comprehensive and nuanced understanding of the multifaceted nature of student engagement with supervisory feedback. It introduces new perspectives on the significance of emotions, trust, adaptivity, and formative practices in influencing student experiences, thereby providing important implications for enhancing feedback processes in undergraduate thesis supervision.

## CONCLUSION

In conclusion, this research aimed to elucidate the multifaceted nature of student engagement with supervisory feedback on the thesis, underscoring the crucial role of affective engagement in influencing cognitive and behavioral responses. The results showed that positive emotional states substantially shape feedback dynamics. This suggested that supervisors should emphasize emotional support to establish trust and foster a productive learning

environment. Furthermore, customizing feedback to address the specific needs of each student could significantly enhance engagement. This research further contributed to the literature by providing new insights into undergraduate engagement with supervisory feedback in less-explored settings. It proposed practical strategies for improving both engagement and academic outcomes. The results also underscored the importance of incorporating emotional dimensions into engagement theories and recognizing the complexities of feedback perceptions, thereby necessitating adaptive supervisory models attuned to individual student requirements.

Based on this perspective, supervisors were expected to receive training in emotional intelligence and cultural sensitivity, as well as institutions to cultivate environments that integrate emotional support in feedback processes and promote student agency. A student-centered method was essential, considering each student's background, learning style, and emotional state. Providing constructive feedback that balances the recognition of strengths with areas for improvement could also help students perceive feedback as an opportunity for development. Using diverse feedback methods and creating an inclusive environment mindful of cultural differences could further bolster engagement. Additionally, conducting regular reflective sessions where students could discuss feedback experiences and collaboratively formulate strategies for improvement would enhance the overall learning experience.

This present research further possessed limitations such as the sample size, diversity, subjectivity of self-reported perceptions, and temporal scope, which could constrain the generalizability of the results. Future research should investigate the specific effects of emotions on engagement, undertake longitudinal research to track engagement over time, develop targeted interventions to enhance engagement and explore engagement dynamics across diverse student populations. These efforts would offer deeper insights and more effective strategies for fostering student engagement and academic success.

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## REFERENCES

- Ali, N., Rose, S., & Ahmed, L. (2015). Psychology students' perception of and engagement with feedback as a function of year of study. *Assessment and Evaluation in Higher Education*, 40(4), 574-586. <https://doi.org/10.1080/02602938.2014.936355>
- Bastola, M. N. (2022). Engagement and challenges in supervisory feedback: Supervisors' and students' perceptions. *RELC Journal*, 53(1), 56-70. <https://doi.org/10.1177/0033688220912547>

- Bastola, M. N., & Hu, G. (2023). From the other side of the desk: Supervisors' perceptions of supervisory feedback. *Journal of Second Language Writing*, 59, Article 100965. <https://doi.org/10.1016/j.jslw.2023.100965>
- Basturkmen, H., East, M., & Bitchener, J. (2014). Supervisors' on-script feedback comments on drafts of dissertations: Socialising students into the academic discourse community. *Teaching in Higher Education*, 19(4), 432-445. <https://doi.org/10.1080/13562517.2012.752728>
- Bitchener, J., Basturkmen, H., & East, M. (2010). The focus of supervisor written feedback to thesis/dissertation students. *International Journal of English Studies*, 10(2), 79-97. <https://doi.org/10.6018/ijes/2010/2/119201>
- Braun, V., & Clarke, V. (2006). Qualitative research in psychology using thematic analysis in psychology using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Carless, D., Salter, D., Yang, M., & Lam, J. (2011). Developing sustainable feedback practices. *Studies in Higher Education*, 36(4), 395-407. <https://doi.org/10.1080/03075071003642449>
- Carter, S., & Kumar, V. (2017). 'Ignoring me is part of learning': Supervisory feedback on doctoral writing. *Innovations in Education and Teaching International*, 54(1), 68-75. <https://doi.org/10.1080/14703297.2015.1123104>
- Dang, T. T. D., Scull, J., & Chowdhury, R. (2022). Engagement with a sequence of feedback-correction: A case study of secondary school students in Vietnam. *International Journal of Instruction*, 15(1), 1025-1044. <https://doi.org/10.29333/iji.2022.15158a>
- de Kleijn, R. A. M., Mainhard, M. T., Meijer, P. C., Brekelmans, M., & Pilot, A. (2013). Master's thesis projects: Student perceptions of supervisor feedback. *Assessment and Evaluation in Higher Education*, 38(8), 1012-1026. <https://doi.org/10.1080/02602938.2013.777690>
- de Kleijn, R. A. M., Meijer, P. C., Brekelmans, M., & Pilot, A. (2015). Adaptive research supervision: Exploring expert thesis supervisors' practical knowledge. *Higher Education Research and Development*, 34(1), 117-130. <https://doi.org/10.1080/07294360.2014.934331>
- de Kleijn, R. A. M., Meijer, P. C., Pilot, A., & Brekelmans, M. (2014). The relation between feedback perceptions and the supervisor-student relationship in master's thesis projects. *Teaching in Higher Education*, 19(4), 336-349. <https://doi.org/10.1080/13562517.2013.860109>
- Ellis, R. (2010). Epilogue: A framework for investigating oral and written corrective feedback. *Studies in Second Language Acquisition*, 32(2), 335-349. <https://doi.org/10.1017/S0272263109990544>
- Fernández-Michels, P., & Fornons, L. C. (2021). Learner engagement with corrective feedback using think-aloud protocols. *JALT CALL Journal*, 17(3), 203-232. <https://doi.org/10.29140/jaltcall.v17n3.461>
- Ferris, D. R. (1995). Student reactions to teacher response in multiple-draft composition classrooms. *TESOL Quarterly*, 29(1), 33-53. <https://doi.org/10.2307/3587804>
- Ferris, D. R., Liu, H., Sinha, A., & Senna, M. (2013). Written corrective feedback for individual L2 writers. *Journal of Second Language Writing*, 22(3), 307-329. <https://doi.org/10.1016/j.jslw.2012.09.009>
- Finn, J. D., & Zimmer, K. S. (2012). Student engagement: What is it? Why does it matter? In S. Christenson, A. Reschly, & C. Wylie (Eds.), *Handbook of Research on Student Engagement* (pp. 97-131). Springer. [https://doi.org/10.1007/978-1-4614-2018-7\\_5](https://doi.org/10.1007/978-1-4614-2018-7_5)
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74(1), 59-109. <https://doi.org/10.3102/00346543074001059>

- Geng, F., & Yu, S. (2022). Exploring doctoral students' emotions in feedback on academic writing: A critical incident perspective. *Studies in Continuing Education*, 46(1), 1-19. <https://doi.org/10.1080/0158037X.2022.2109616>
- Hadden, A. A., & Frisby, B. N. (2019). Face threat mitigation in feedback: An examination of student feedback anxiety, self-efficacy, and perceived emotional support. *Communication Quarterly*, 67(1), 60-75. <https://doi.org/10.1080/01463373.2018.1531043>
- Hafour, M. F., & Alwaleedi, M. (2022). Students' emotional and behavioral engagement: Cloud-based collaborative writing and learning analytics. *Call-Ej*, 23(1), 374-400.
- Han, Y., & Hyland, F. (2015). Exploring learner engagement with written corrective feedback in a Chinese tertiary EFL classroom. *Journal of Second Language Writing*, 30, 31-44. <https://doi.org/10.1016/j.jslw.2015.08.002>
- Han, Y., & Hyland, F. (2019). Learner engagement with written feedback: A sociocognitive perspective. In K. Hyland & F. Hyland (Eds.), *Feedback in second language writing: Contexts and issues* (pp. 247-264). Cambridge University Press. <https://doi.org/10.1017/9781108635547.015>
- Han, Y., & Xu, Y. (2021). Student feedback literacy and engagement with feedback: A case study of Chinese undergraduate students. *Teaching in Higher Education*, 26(2), 181-196. <https://doi.org/10.1080/13562517.2019.1648410>
- Handley, K., Price, M., & Millar, J. (2011). Beyond "doing time": Investigating the concept of student engagement with feedback. *Oxford Review of Education*, 37(4), 543-560. <https://doi.org/10.1080/03054985.2011.604951>
- Harreveld, B., Danaher, M., Lawson, C., Knight, B. A., & Busch, G. (2016). *Constructing methodology for qualitative research: Researching Education and Social Practices*. Palgrave Macmillan. <https://doi.org/10.1057/978-1-137-59943-8>
- Hill, J., Berlin, K., Choate, J., Cravens-Brown, L., McKendrick-Calder, L., & Smith, S. (2021). Exploring the emotional responses of undergraduate students to assessment feedback: Implications for instructors. *Teaching and Learning Inquiry*, 9(1), 294-318. <https://doi.org/10.20343/TEACHLEARNINQU.9.1.20>
- Hyland, F. (2003). Focusing on form: Student engagement with teacher feedback. *System*, 31(2), 217-230. [https://doi.org/10.1016/S0346-251X\(03\)00021-6](https://doi.org/10.1016/S0346-251X(03)00021-6)
- Inouye, K. S., & McAlpine, L. (2017). Developing scholarly identity: Variation in agentic responses to supervisor feedback. *Journal of University Teaching and Learning Practice*, 14(2). <https://doi.org/10.53761/1.14.2.3>
- Jin, X., Jiang, Q., Xiong, W., Feng, Y., & Zhao, W. (2022). Effects of student engagement in peer feedback on writing performance in higher education. *Interactive Learning Environments*, 3(1), 128-143. <https://doi.org/10.1080/10494820.2022.2081209>
- Karakose, T., Polat, H., Yirci, R., Tülübaş, T., Papadakis, S., Ozdemir, T. Y., & Demirkol, M. (2023). Assessment of the relationships between prospective mathematics teachers' classroom management anxiety, academic self-efficacy beliefs, academic motivation, and attitudes toward the teaching profession using structural equation modelling. *Mathematics*, 11(2), Article 449. <https://doi.org/10.3390/math11020449>
- Kim, A. Y., & Kim, H. J. (2017). The effectiveness of instructor feedback for learning-oriented language assessment: Using an integrated reading-to-write task for English for academic purposes. *Assessing Writing*, 32, 57-71. <https://doi.org/10.1016/j.asw.2016.12.001>
- Kumar, V., & Stracke, E. (2007). An Analysis of written feedback on a PhD thesis. *Teaching in Higher Education*, 12(4), 461-470. <https://doi.org/10.1080/13562510701415433>

- Lee, J. D., & See, K. A. (2004). Trust in automation: Designing for appropriate reliance. *Human Factors*, 46(1), 50-80. [https://doi.org/10.1518/hfes.46.1.50\\_30392](https://doi.org/10.1518/hfes.46.1.50_30392)
- Lei, Z., & Pramoolsook, I. (2020). Written supervisory feedback strategies on bachelor's theses: Chinese EFL supervisors' beliefs and practices. *rEFLECTIONS*, 27(2), 162-188. <https://doi.org/10.61508/refl.v27i2.247274>
- Li, Y., Hyland, F., & Hu, G. (2017). Prompting MEd students to engage with academia and the professional world through feedback. *Journal of English for Academic Purposes*, 26, 52-65. <https://doi.org/10.1016/j.jeap.2017.02.005>
- Liu, N. F., & Carless, D. (2006). Peer feedback: The learning element of peer assessment. *Teaching in Higher Education*, 11(3), 279-290. <https://doi.org/10.1080/13562510600680582>
- Lunt, T., & Curran, J. (2010). "Are you listening please?" The advantages of electronic audio feedback compared to written feedback. *Assessment and Evaluation in Higher Education*, 35(7), 759-769. <https://doi.org/10.1080/02602930902977772>
- Macfadyen, A., English, C., Kelleher, M., Coates, M., Cameron, C., & Gibson, V. (2019). 'Am I doing it right?' Conceptualizing the practice of supervising master's dissertation students. *Higher Education Research and Development*, 38(5), 985-1000. <https://doi.org/10.1080/07294360.2019.1597024>
- Mahfoodh, O. H. A. (2017). "I feel disappointed": EFL university students' emotional responses towards teacher written feedback. *Assessing Writing*, 31, 53-72. <https://doi.org/10.1016/j.asw.2016.07.001>
- Man, D., Chau, M. H., & Kong, B. (2021). Promoting student engagement with teacher feedback through rebuttal writing. *Educational Psychology*, 41(7), 883-901. <https://doi.org/10.1080/01443410.2020.1746238>
- McClure, J. W. (2005). Preparing a laboratory-based thesis: Chinese international research students' experiences of supervision. *Teaching in Higher Education*, 10(1), 3-16. <https://doi.org/10.1080/1356251052000291530>
- Newman, R. (2016). Working talk: Developing a framework for the teaching of collaborative talk. *Research Papers in Education*, 31(1), 107-131. <https://doi.org/10.1080/02671522.2016.1106698>
- Parker, M., & Winstone, N. E. (2016). Students' perceptions of interventions for supporting their engagement with feedback. *Practitioner Research in Higher Education*, 10(1), 53-64.
- Philp, J., & Duchesne, S. (2016). Exploring engagement in tasks in the language classroom. *Annual Review of Applied Linguistics*, 36, 50-72. <https://doi.org/10.1017/S0267190515000094>
- Price, M., Handley, K., & Millar, J. (2011). Feedback: Focusing attention on engagement. *Studies in Higher Education*, 36(8), 879-896. <https://doi.org/10.1080/03075079.2010.483513>
- Rowe, A. D. (2017). Feelings about feedback: The role of emotions in assessment for learning. In D. Carless, S. Bridges, C. K. Y. Chan, & R. Glofcheski (Eds.), *Scaling up assessment for learning in higher education. The enabling power of assessment* (Vol. 5; pp. 159-172). Springer. [https://doi.org/10.1007/978-981-10-3045-1\\_11](https://doi.org/10.1007/978-981-10-3045-1_11)
- Sadler, D. R. (2010). Beyond feedback: Developing student capability in complex appraisal. *Assessment and Evaluation in Higher Education*, 35(5), 535-550. <https://doi.org/10.1080/02602930903541015>
- Saeed, M. A., Al Qunayeer, H. S., & Al-Jaberi, M. A. (2021). Exploring supervisory feedback formulation on academic writing of research proposals and postgraduates' responses to feedback: A case study. *SAGE Open*, 11(2). <https://doi.org/10.1177/21582440211007125>

- Saeli, H., & Cheng, A. (2019). Student writers' affective engagement with grammar-centred written corrective feedback: The impact of (mis)aligned practices and perceptions. *Canadian Journal of Applied Linguistics*, 22(2), 109-132. <https://doi.org/10.7202/1065058ar>
- Shi, Y. (2021). Exploring learner engagement with multiple sources of feedback on L2 writing across genres. *Frontiers in Psychology*, 12, Article 758867. <https://doi.org/10.3389/fpsyg.2021.758867>
- Skinner, E. A., & Pitzer, J. (2012). Developmental dynamics of student engagement, coping, and everyday resilience. In S. Christenson, A. Reschly, & C. Wylie (Eds.), *Handbook of Research on Student Engagement* (pp. 21-44). Springer. [https://doi.org/10.1007/978-1-4614-2018-7\\_2](https://doi.org/10.1007/978-1-4614-2018-7_2)
- Storch, N., & Wigglesworth, G. (2010). Learners processing, uptake, and retention of corrective feedback on writing: Case studies. *Studies in Second Language Acquisition*, 32(2), 303-334. <https://doi.org/10.1017/S0272263109990532>
- Stracke, E., & Kumar, V. (2016). Exploring doctoral students' perceptions of language use in supervisory written feedback practices - Because "feedback is hard to have." *Australian Review of Applied Linguistics*, 39(2), 122-138. <https://doi.org/10.1075/ara1.39.2.02str>
- Styles, I., & Radloff, A. (2001). The synergistic thesis: Student and supervisor perspectives. *Journal of Further and Higher Education*, 25(1), 97-106. <https://doi.org/10.1080/03098770020030533>
- Sun, X., & Trent, J. (2020). Promoting agentic feedback engagement through dialogically minded approaches in doctoral writing supervision. *Innovations in Education and Teaching International*, 59(4), 387-397. <https://doi.org/10.1080/14703297.2020.1861965>
- Svalberg, A. M.-L. (2009). Engagement with language: Interrogating a construct. *Language Awareness*, 18(3-4), 242-258. <https://doi.org/10.1080/09658410903197264>
- van Tienoven, T. P., Glorieux, A., Minnen, J., te Braak, P., & Spruyt, B. (2022). Are graduate students locked down? PhD students' satisfaction with supervision during the first and second COVID-19 lockdown in Belgium. *PLoS ONE*, 17(5), Article e0268923. <https://doi.org/10.1371/journal.pone.0268923>
- Värlander, S. (2008). The role of students' emotions in formal feedback situations. *Teaching in Higher Education*, 13(2), 145-156. <https://doi.org/10.1080/13562510801923195>
- Wang, L., & Lee, I. (2021). L2 learners' agentic engagement in an assessment as a learning-focused writing classroom. *Assessing Writing*, 50, Article 100571. <https://doi.org/10.1016/j.asw.2021.100571>
- Xu, L. (2017). Written feedback in intercultural doctoral supervision: A case study. *Teaching in Higher Education*, 22(2), 239-255. <https://doi.org/10.1080/13562517.2016.1237483>
- Xu, L., & Hu, J. (2020). Language feedback responses, voices, and identity (re)construction: Experiences of Chinese international doctoral students. *Innovations in Education and Teaching International*, 57(6), 724-735. <https://doi.org/10.1080/14703297.2019.1593214>
- Xu, L., Teng, L. S., & Cai, J. (2021). Feedback engagement of Chinese international doctoral students. *Studies in Continuing Education*, 43(1), 119-135. <https://doi.org/10.1080/0158037X.2020.1718634>
- Yang, M., & Carless, D. (2013). The feedback triangle and the enhancement of dialogic feedback processes. *Teaching in Higher Education*, 18(3), 285-297. <https://doi.org/10.1080/13562517.2012.719154>
- Yang, M., Badger, R., & Yu, Z. (2006). A comparative study of peer and teacher feedback in a Chinese EFL writing class. *Journal of Second*

- Language Writing*, 15(3), 179-200. <https://doi.org/10.1016/j.jslw.2006.09.004>
- Young, K. A. (2005). Direct from the source: The value of “think-aloud” data in understanding learning. *Journal of Educational Enquiry*, 6(1), 19-33.
- Yu, S., & Jiang, L. (2020). Studies in continuing education doctoral students’ engagement with journal reviewers’ feedback on academic writing. *Studies in Continuing Education*, 44(1), 87-104. <https://doi.org/10.1080/0158037X.2020.1781610>
- Yu, S., Zhang, Y., Zheng, Y., Yuan, K., & Zhang, L. (2018). Understanding student engagement with peer feedback on master’s theses: A Macau study. *Assessment and Evaluation in Higher Education*, 44(1), 50-65. <https://doi.org/10.1080/02602938.2018.1467879>
- Zhang, F., Schunn, C., Chen, S., Li, W., & Li, R. (2023). EFL student engagement with giving peer feedback in academic writing: A longitudinal study. *Journal of English for Academic Purposes*, 64, Article 101255. <https://doi.org/10.1016/j.jeap.2023.101255>
- Zhang, Z. (2017). Student engagement with computer-generated feedback: A case study. *ELT Journal*, 71(3), 317-328. <https://doi.org/10.1093/elt/ccw089>
- Zhang, Z. (2020). Learner engagement and language learning: A narrative inquiry of a successful language learner. *The Language Learning Journal*, 50(3), 378-392. <https://doi.org/10.1080/09571736.2020.1786712>
- Zhang, Z., & Hyland, K. (2018). Student engagement with the teacher and automated feedback on L2 writing. *Assessing Writing*, 36, 90-102. <https://doi.org/10.1016/j.asw.2018.02.004>
- Zhang, Z., & Hyland, K. (2022). Fostering student engagement with feedback: An integrated approach. *Assessing Writing*, 51, Article 100586. <https://doi.org/10.1016/j.asw.2021.100586>
- Zheng, Y., & Yu, S. (2018). Student engagement with teacher written corrective feedback in EFL writing: A case study of Chinese lower-proficiency students. *Assessing Writing*, 37, 13-24. <https://doi.org/10.1016/j.asw.2018.03.001>
- Zheng, Y., Yu, S., & Liu, E. Z. F. (2020). Understanding individual differences in lower proficiency students’ engagement with teacher written corrective feedback. *Teaching in Higher Education*, 28(2), 301-321. <https://doi.org/10.1080/13562517.2020.1806225>
- Zheng, Y., Yu, S., Wang, B., & Zhang, Y. (2020). Exploring student engagement with supervisor feedback on master’s thesis : Insights from a case study. *Innovations in Education and Teaching International*, 57(2), 186-197. <https://doi.org/10.1080/14703297.2019.1617181>





## **Vulnerability of the Semarang Heritage Area to Climate Change**

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### **ABSTRACT**

Semarang is a coastal city with many historical buildings as a relic of past civilisations. Along with the recent worsening of climate change, these historic structures are in danger of damage. If this condition persists, historic buildings will be lost. This study aims to determine the vulnerability of historic buildings in four different landscape conditions to climate change indicators, such as temperature, air quality, object shading, activity level, and vegetation. The analysis process on the sample measurement data is in the form of vulnerability identification based on landscape characteristics via climate parameters, followed by the final assessment process of environmental adaptability and vulnerability level of historic buildings using the Range Analysis Method (RAM). A standardisation approach to the value of each indicator strengthens this. The spatial approach method was carried out on the final results of the vulnerability assessment to produce a Vulnerability Map for the Semarang Heritage Area. The outcomes obtained in the form of community beliefs and habits significantly impact the building maintenance level. Locations with a solid attachment for trade and religious activities are more likely to care for historic buildings. The influence of regulations and the government's commitment to handling the impacts of climate change is also very influential in reducing the value of vulnerability in the Semarang Heritage Area. Locations close to the coast tend to have a low level of vulnerability due to the high focus on environmental management in these locations.

*Keywords:* Adaptation, climate change, heritage area, vulnerability

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### **INTRODUCTION**

The world is entering the highest phase of extreme climate change, which has various impacts on human life. Issues of environmental damage are always associated with the phenomenon of

increasing air temperature due to damage to the ozone layer. Since 1880, the Earth's surface temperature has risen by 0.08°C every decade and is predicted to grow (Heshmati, 2020; Lindsey & Dahlman, 2024). The increase in global temperature is expected to increase sharply until 2101 and is very likely to produce severe impacts in various parts of the world (see Figure 1). This occurs because of an imbalance between solar radiation and the ability of the atmosphere to absorb radiation toward the Earth. Global issues regarding the impacts of this phenomenon are widespread. However, many sectors still change the function of green land into buildings without considering the long-term impact on the preservation of the Earth (Ahima, 2020; Hsiang & Kopp, 2018; McMichael & Lindgren, 2011; Wu et al., 2016).

The Earth's surface temperature increase causes various disasters, such as tidal waves in coastal areas that threaten ecosystems (Cook et al., 2016; Lelieveld et al., 2016;

Schilling et al., 2020). Coastal areas have the highest vulnerability to climate change impacts on Earth (Harley et al., 2006). He and Silliman (2019) stated that coastal areas with high-density levels are threatened with damage due to climate change. This is because coastal communities depend on marine conditions and the surrounding environment to meet their needs. High tidal waves, coastal abrasion, and tidal flood inundation are getting worse due to uncertain climate change, causing a decrease in catches and damaging residential infrastructure.

Some countries also face difficulties preserving cultural heritage areas, particularly those near the coast, because historic structures are particularly vulnerable to tidal waves and flooding. This is also supported by several previous studies which found that cultural heritage is very vulnerable to climate change phenomena such as extreme weather, sea level rise, flooding, coastal erosion, and others

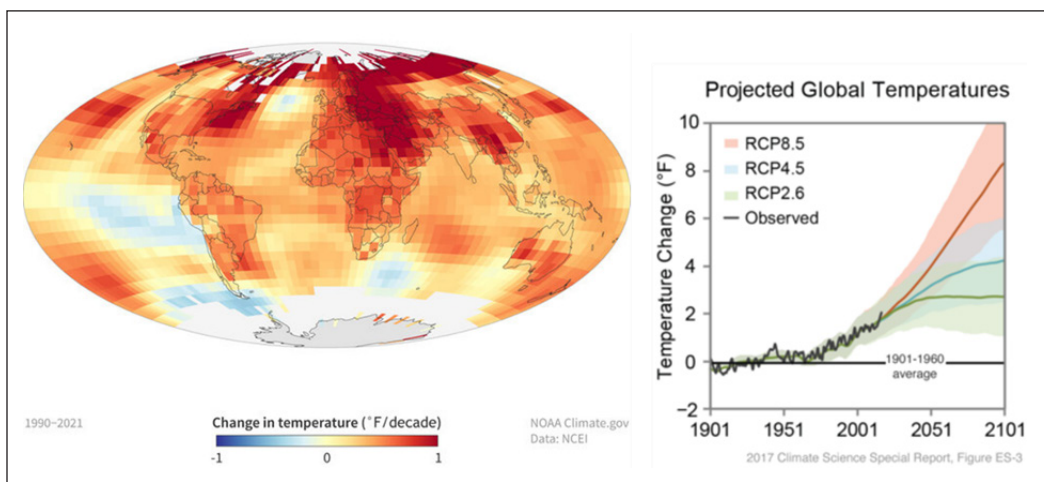


Figure 1. Climate Change: Global Temperature (Source: Lindsey & Dahlman, 2024)

(Gomez-Heras & McCabe, 2015; Leissner et al., 2015; Reeder-Myers, 2015; Ronco et al., 2014). Based on this, comprehensive planning steps are needed to minimise the damage caused by the environmental, economic, and sociocultural aspects.

Indonesia has a relatively high green area and is called one of the "World's Lungs." It is a country with the second-largest forest area in the world (Menlhk, 2016). The extent of forest areas in Indonesia is one of the potential sources of O<sub>2</sub> production that can minimise solar radiation due to climate change. Based on data obtained from WorldClim in the Ministry of Environment and Forestry (2020), most regions in Indonesia have an average air temperature of 22°C–26°C, and in the highlands, the temperature reaches 16°C–20°C. For approximately 30 years (1991–2020), various regions in Indonesia have experienced an annual increase in air temperature of 0.01°C–0.06°C.

The rise in global temperatures affects heritage properties and will become even more dangerous in the future (World Heritage Committee, 2006). Climate change threats on 46 Cultural World Heritage sites were reported, and the result shows that almost all cultural sites mentioned were "human-built structures," such as archaeological ruins, churches, mosques, temples, and fortresses. Cultural heritage objects must be protected and saved because they have a high historical value for the development of a region. On the other hand, research on the impact of climate on cultural heritage is still limited for countries in Africa,

Asia, and South America because it is still concentrated in the United Kingdom and the United States (Fatorić & Seekamp, 2017).

Based on this, this study aims to determine the vulnerability experienced by Heritage Areas in Semarang City and provide relevant recommendations. The concept of Climate Sensitive Urban Design (CSUD), supported by the theory of vulnerability and resilience of historic heritage sites, is the basis for this research. The urgency to plan resilient historic heritage sites in accordance with United Nations Educational, Scientific and Cultural Organization (UNESCO) directives is the background of the research objectives. The interesting thing found in this study is that each location has unique characteristics in the form of ethnic elements such as European, Chinese, Malay, and Pakistani. Therefore, this study is expected to find the vulnerability characteristics to certain climates in each heritage landscape to prepare recommendations for climate change adaptation.

### **Vulnerability of Heritage Areas to Climate Change**

The results of a systematic review conducted by Fatorić and Seekamp (2017) found that many studies on the influence of climate on cultural heritage began in 2003 and have increased due to several findings about the resulting negative impacts. For example, the results of Sabbioni et al. (2006, 2008) produced a guide to climate change adaptation for cultural heritage in Europe by practising improved monitoring, maintenance, and preparedness against

floods and landslides. Grøntoft (2011) recommends adopting building materials or cultural heritage areas to minimise the impact of solar radiation and increase the area's humidity.

In recent decades, Climate Sensitive Urban Design (CSUD) has been widely used to modify urban landscapes to adapt to climate change. CSUD is a planning concept on a regional scale designed to address the need for environmental adaptation due to the impacts of climate change (Emmanuel, 2005; Kurniati et al., 2021). This approach can be used to assess the potential for adaptation that can be applied to various forms of urban landscapes, such as the landscape of cultural heritage areas. Indicators that can be assessed in CSUD include sunlight (radiation level), wind speed, air temperature, shadow, air quality, wind direction, and land cover (vegetation and material), among others (Hakim, 2013; Kurniati et al., 2020; Lakitan, 2004; Oke, 2006; Shashua-bar & Hoffman, 2003; Yu & Hien, 2009). Certain locations may have different indicator adjustments based on differences in geographical conditions or community characteristics. New research may lead to adjustments in indicators due to the highly dynamic climate cycle.

The components or indicators that exist in the CSUD concept are the basis for this research. Forms of adaptation in accordance with the landscape conditions of the historic area in the CSUD concept proved linearly can improve outdoor thermal comfort as well as a form of physical preservation of heritage areas (Kurniati et al., 2023). This is

supported by research conducted by Adger (2006) and Turner et al. (2003), which states that vulnerability theory is important for understanding how historic heritage sites are affected by climate change. In terms of sensitivity, historic heritage sites are particularly sensitive to climate change due to their specific material conditions and historic value. For example, rising sea levels in coastal cities like Semarang City and extreme weather can damage historic buildings. The concept of CSUD, in this case, relates to the resilience theory of historic heritage sites as a measure to create systems to withstand and the ability to recover from climate-induced disturbances (Folke, 2006; Walker et al., 2004). This theory also explains that the adaptive capacity of the community to plan and implement adaptation strategies is also indispensable to enhance resilience. In line with the indicators in the CSUD concept, climate resilience theory encourages using various strategies, including physical engineering solutions, while adhering to the requirements for altering historic heritage sites.

The high vulnerability of historic areas to climatic conditions has led UNESCO to issue a list of recommended areas for protection by future generations (Sesana et al., 2020; UNESCO, 2013). European countries are focusing on the vulnerability of historic areas to climate change. The factors of climate influence on the vulnerability of heritage areas are very diverse. Hence, environmentalists and historians recommend using vulnerability

assessment as a tool to measure the impact that climate change has on historic areas. The Vulnerability Assessment Framework (VAF) can also incorporate participatory planning from various stakeholders and identify the physical conditions of historic areas (Sabbioni et al., 2010).

The vulnerability of historic districts in Indonesia is an increasingly researched issue. Many factors contribute to the loss of historic areas in Indonesia, with environmental conditions being a key factor. As a tropical country, Indonesia experiences high humidity in the outside air, which can threaten historic building materials. The high vulnerability of cultural heritage in Indonesia is attributed to the fact that most sites are in the open air and are directly exposed to water and weather conditions such as temperature, humidity, and wind (Table 1).

The Borobudur Temple Cultural Heritage site is affected by various factors such as climate, water temperature,

radiation, evaporation, air pollution, water, disasters, destruction, displacement, and others. Historical records show climate change has threatened the temple for around 1,200 years. Data from the Indonesian Climatology Agency indicates that the surface temperature in the temple area can reach 38°C, leading to weathering and flattening of the temple stones (Megarani, 2022). This vulnerability is also a concern for many other historic sites in Indonesia, potentially leading to the loss of these sites in the future.

## METHODOLOGY

### Semarang Heritage Area

The research was conducted in four areas of the Cultural Heritage of Semarang City, Indonesia. Semarang is known for its rich ethnic diversity, reflecting the lives of Europeans, Chinese, Malays, and Pakistanis in its cultural heritage buildings. The research areas represent the amalgamation of these

Table 1  
*Indicators of climate change adaptation in cultural heritage areas*

Num	Indicators	Sources	Parameter
1	Temperature (°C)	Koch-Nielsen (2002), Koerniawan (2015)	The daily outdoor air temperature in a location
2	Air Quality (Aqi)	Kurniati et al. (2021)	Air quality is measured using the Air Quality Index (Aqi) on a particular scale.
3	Shadow (m)	Yeang (2006)	Measure the daily average shadow length from morning to evening on buildings and vegetation.
4	Activity Density	Kurniati et al. (2021)	The density of area activities and types of activities owned.
5	Vegetation	Hakim (2013), Lakitan (2004), Yu & Hien (2009)	Distribution of vegetation around the landscape by looking at the type and ability to produce shade (shade) and vegetation density.

ethnicities and their historical significance: Old Town (Europe), Chinatown (Chinese), Kampong Melayu, and Kampong Pekojan, each with distinct landscape characteristics. Located near the coastal zone of Semarang City, these areas are characterised by high activity density. Each location has a unique historical narrative, depicting Semarang as a significant trade centre and seaport in the past. Due to their historical and cultural significance, these locations are popular tourist destinations in Semarang.

Kampong Melayu is situated in the northern part of Semarang District and is characterised by buildings used primarily as

residential areas (Febbiyana & Suwandono, 2016). Due to the Malay people's affinity for sailing, this location is close to the Semarang River (see Figure 2). On the other hand, the Old City area is known for its colonial buildings, symbolising European influence. This area is a popular historical tourist destination in Semarang City and has been designated as a World Cultural Heritage site by UNESCO (Prabowo & Harsritanto, 2018).

Kampong Pekojan is a symbol of the life of the Pakistani community in Semarang City. It proudly maintains its traditions and culture through various community

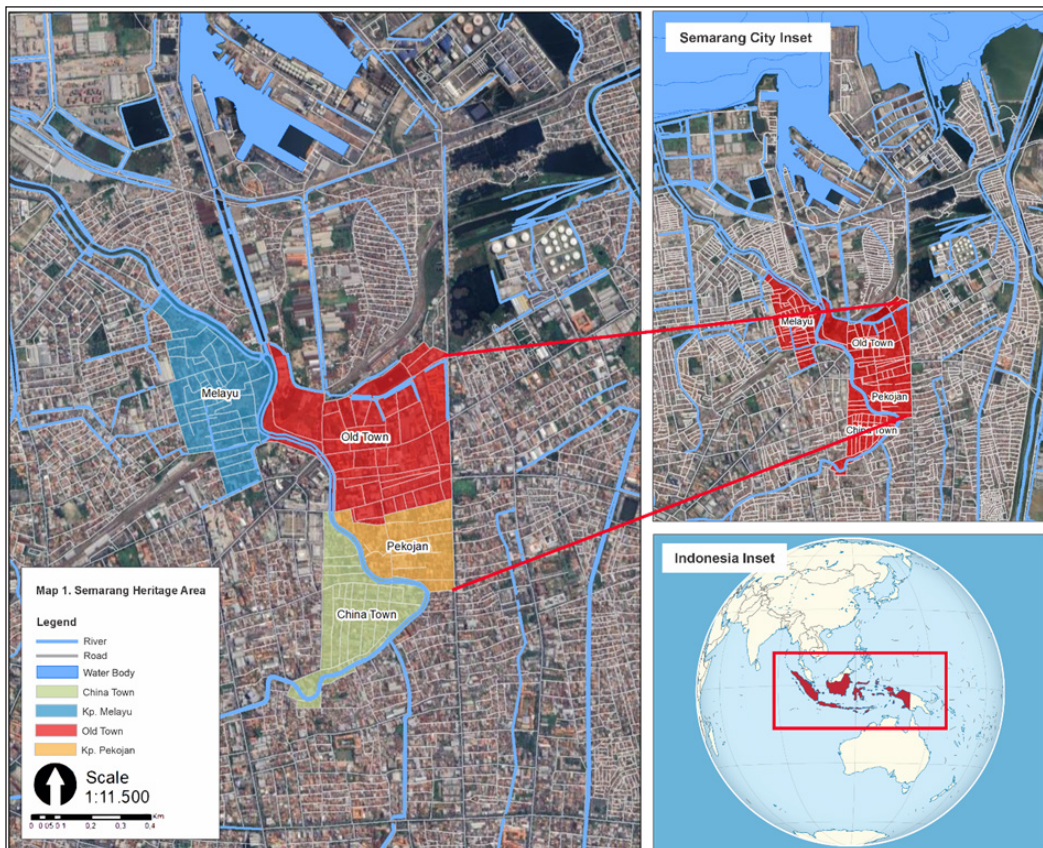


Figure 2. Study location: Heritage area of Semarang

activities. This location consists of a row of shops and residential neighbourhoods, predominantly engaged in trading activities, which is a major attraction (Kurniasari & Nurini, 2016). What makes this community unique is its blend of several ethnic groups, including indigenous Indonesians, the Koja ethnic group (Pakistani Tribe), and Chinese residents (Wahjoerini & Handayani, 2020). On the other hand, Semarang's Chinatown is a Chinese settlement characterised by a row of shops serving as a commercial centre. The area is still home to a thriving ethnic Chinese community, earning it the nickname "Land of a Thousand Temples" due to its large number of operational temple buildings.

The four Cultural Heritage Areas were selected as research sites due to their unique characteristics as symbols of diversity and high tolerance in Semarang. These areas also exhibit diverse environmental factors and physical building arrangements, which could lead to varied responses in the context of climate change.

### **Data and Methods**

Data was collected in 2022 at four locations in Semarang: Kampong Melayu, Kampong Pekojan, Chinatown, and Old Town. The collected data primarily focused on measuring indicators to assess climate conditions. These indicators included temperature, air quality, object shadowing, activity density, and the presence of vegetation. The assessment of these indicators was carried out at three sample points. Additionally, field observations were conducted to identify the vulnerability or

damage experienced by historic buildings in Semarang. The collected data went through several synthesis processes before being used as the basis for analysis.

This study utilised a qualitative approach to conduct a detailed analysis of the data collected. The analysis involved describing vulnerable conditions based on field observations and evaluating climate change indicators using the Range Analysis method to categorise the characteristics of climatic conditions in different historical landscapes. Table 2 outlines the process of determining the analytical scale or parameters, taking into account various factors, such as assessing the temperature component based on the humidity index limit in coastal areas, which ranges from 21°C to 27°C (Laurie, 1990; Stathopoulos et al., 2004).

The International Air Quality Index measures air quality. It is calculated using a formula that considers the highest and lowest values, shadow length, and activity density. Additionally, the vegetation indicator describes the landscape's condition based on vegetation type and density. The overall indicators are grouped into Good (score 2) and Poor (score 1). Finally, the average level of vulnerability in four Semarang Heritage Area locations is visualised on a map.

The research data was collected over three five-days periods: 10:00 AM, 12:00 PM, and 4:00 PM. The initial data collection process lasted about 12 hours, from 8:00 AM to 6:00 PM. The results were obtained by categorising climate conditions based on three general characteristics at each data

collection station in the Semarang Heritage Area. The chosen times were representative of the overall conditions. The sample data collection stations were selected based on important locations in the study area. The data used for the research analysis can be found in Table 3.

Table 2  
*Climate condition assessment model in Semarang Heritage Area*

Num.	Indicators	Description	Study Scale	Value*
1	Temperature (°C)	Based on the Humidity Index level, the comfortable temperature limit for activities with air temperature is less than 27°C (Laurie, 1990; Stathopoulos et al., 2004).	Poor: >27°C	1
			Good: ≤ 27°C	2
2	Air Quality (Aqi)	Based on the World Air Quality Index, the air quality scale is as follows: 0-5 = Healthy 5-100 = Medium 101-150 = Unhealthy for Sensitive Groups 151-200 = Unhealthy 201-300 = Very Unhealthy (Alqausar, 2019).	Poor: >100	1
			Good: ≤ 100	2
3	Shadow (m)	Shadow measurement is based on the accumulation of the highest value and the lowest value (value interval) during field data collection.	Poor: < 5.10 m	1
			Good: ≥ 5.10 m	2
4	Activity Density	Based on the characteristics and density scale of field data collection results.	Poor: High Density	1
			Good: Low Density	2
5	Vegetation	Used for a complementary description of the components of climate adaptation. The location with the most shade vegetation is the best.	Poor: High Density	1
			Good: Low Density	2

Note. The meaning of value is getting closer to 1 (Poor) and 2 (Good). \*level of vulnerability

Table 3  
*Research data of Semarang Heritage Area towards climate change*

No.	Sample Point	Time	Temp (°C)	Air Quality (Aqi)	Shadow Length (m)	Activity Density	Activity Type	Vegetation
A. Old Town Semarang								
1	Marba Building	10:00 AM	34.1	96	2	Low	Office	Decorative
		12:00 PM	41.0	105	0.7	Low	Office	Decorative
		04:00 PM	38.9	154	9	Medium	Office	Decorative



Table 3 (continue)

No.	Sample Point	Time	Temp (°C)	Air Quality (Aqi)	Shadow Length (m)	Activity Density	Activity Type	Vegetation
2	Koperasi Giri Makmur	10:00 AM	31.3	87	3.3	Low	Empty Building	Shade
		12:00 PM	40.6	105	2.25	Low	Empty Building	Shade
		04:00 PM	37.6	154	7.7	Low	Empty Building	Shade
3	Soesman Kantor	10:00 AM	31.7	85	1.3	Low	Trade and Services	Decorative
		12:00 PM	38.8	111	0.4	Low	Trade and Services	Decorative
		04:00 PM	37.3	153	10	Medium	Trade and Services	Decorative
<b>B. Kampong Melayu</b>								
4	Layur Mosque	10:00 AM	34.6	87	3	Low	Worship Place	Shade
		12:00 PM	38.8	106	1.4	Medium	Worship Place	Shade
		04:00 PM	35.5	134	3.6	Low	Worship Place	Shade
5	Gerak Cepat Photo Studio	10:00 AM	33.5	83	2.2	Low	Tourism	Shade
		12:00 PM	37.6	98	2	Medium	Tourism	Shade
		04:00 PM	34.2	129	2.2	Medium	Tourism	Shade
6	Rumah Panggung	10:00 AM	33.8	87	2.75	Low	Worship Place	Shade
		12:00 PM	38.3	106	1.7	Low	Worship Place	Shade
		04:00 PM	34.6	134	3.25	Low	Worship Place	Shade
<b>C. Kampong Pekojan</b>								
7	Jami Mosque	10:00 AM	35.2	103	2.2	Low	Worshipping	Shade
		12:00 PM	39.2	115	2.7	High	Worshipping	Shade
		04:00 PM	37.6	144	4.3	Low	Worshipping	Shade
8	Jaya APoori Iron Shop	10:00 AM	33.4	98	1.2	Low	Trade and Service	None
		12:00 PM	35.4	105	0.3	Medium	Trade and Service	None
		04:00 PM	34.2	134	1.9	Medium	Trade and Service	None
9	Boma Shop	10:00 AM	33.2	98	1.1	Low	Trade and Service	None
		12:00 PM	34.2	134	1.9	Medium	Trade and Service	None
		04:00 PM	34.1	134	1.8	Medium	Trade and Service	None

Table 3 (continue)

No.	Sample Point	Time	Temp (°C)	Air Quality (Aqi)	Shadow Length (m)	Activity Density	Activity Type	Vegetation
D. China Town Semarang								
10	Tong Pek Bio Temple	10:00 AM	36.8	98	3	Low	Worshipping	Decorative
		12:00 PM	40.8	105	1	Low	Worshipping	Decorative
		04:00 PM	36.8	134	4.5	Low	Worshipping	Decorative
11	PD Sumber Makmur	10:00 AM	33.9	84	5.5	Low	Trade and Service	None
		12:00 PM	37.6	96	4	Medium	Trade and Service	None
		04:00 PM	33.9	132	6	Medium	Trade and Service	None
12	Rented House	10:00 AM	35.2	84	4	Low	Housing	None
		12:00 PM	38.9	96	1.5	Low	Housing	None
		04:00 PM	35.2	132	5	Low	Housing	None

Note. Data samples were taken over five days in 2022

## RESULT AND DISCUSSION

### Climate Change Vulnerability by Landscape Characteristics

Semarang City is located on the coast and is highly vulnerable to the effects of climate change. Since 1985, a recorded sea level rise of 40 cm to 80 cm has occurred. Over the last 100 years, the potential flooding area has increased by 1.7 km and 3 km (Mulyana et al., 2013). The large number of cultural heritage sites in Semarang makes the city and its components even more susceptible to the impact of climate change. Most of Semarang's historical areas are in coastal regions, particularly the northern areas near the Java Sea, where sea level rise and land subsidence are ongoing issues.

The data collection results reveal various characteristics of the climatic conditions in four cultural heritage areas in Semarang City. These areas were assessed

based on temperature, air quality, shading, activity density, and vegetation indicators. The assessment considered the landscape conditions of the historic areas and their activities, resulting in the average climate indicators for each historical area in Semarang City.

Based on Table 5, all historic villages in Old Town have temperatures exceeding the comfort limit (27°C), with the highest air temperature reaching 40.13°C at noon when the sun is perpendicular to the buildings. Buildings exposed to sunlight with high radiation levels decay or get damaged faster, depending on the material. Radiation significantly impacts the surrounding environment, especially in materials that reflect light, leading to uncomfortable air temperatures for outdoor activities. This is one of the main reasons why people in Semarang have a low desire to walk. Old

Town and Chinatown have the highest average air temperatures compared to the other two locations, influenced by the many activities in the area from morning to evening.

Air quality pertains to the level of pollution created by activities in a particular area and correlates with the rise in the average daily temperature within the cultural heritage area. The results of the air quality index in each Heritage Area are displayed in Table 4. According to the AQI standard, air quality values exceeding 100 are classified as unhealthy. Old Town, a heritage area, exhibits the highest air pollution level, with an AQI value of 153.67 at 04:00 PM. This condition is attributed to the increased activity of tourist visitors, who gather in the area from afternoon to evening. An interview with various tourists in 2021 revealed that they avoid visiting Old Town during the day due to high air temperatures and a lack of shaded vegetation, making them uncomfortable.

The amount of shading in the heritage area heavily depends on the buildings' physical structure. The sun's position also affects the length of the shadows cast. From 10:00 AM to 12:00 PM, the heritage area experiences minimal shadows due to the sun being perpendicular to the buildings. The lack of vegetation and shading objects exacerbates humans' exposure to solar radiation. In Kampong Pekojan, the shortest building casts a shadow of 1.10 meters, with an average height of 8 meters.

Conversely, the longest shadows occur around 4:00 PM in the Old Town

area, reaching 8.90 meters. The colonial buildings, with their high roof foundations and canopies, contribute to the formation of shadows. The average building height in Old Town ranges from 10 to 12 meters, resulting in up to 80% of the area being covered in shadows in the afternoon starting at 3:00 PM. Areas like Kampong Melayu and Kampong Pekojan, dominated by shophouses and low-rise residential buildings, tend to have minimal shadow coverage (see Figure 3).

The distribution of vegetation varies significantly in different areas. In the Old Town, decorative vegetation, like potted plants and hanging plants on streetlamps, is typical. Sri Gunting Park, which features large shade trees with a 15-meter diameter, is the main green area and public space for visitors. In Kampong Melayu, Kampong Pekojan, and Kampong Chinatown, there is a greater need for more vegetation to help mitigate the impact of climate change, as these areas are dominated mainly by decorative vegetation like potted plants. Due to high building density, there is a pressing need for more green and public space to provide the community with adequate greenery.

At 10:00 AM, all heritage areas had poor overall climatic indicators, including air temperature, air quality, shading, and activity levels. At noon, the object shadow indicator and air temperature condition were uniformly poor in every location. Old Town had the highest activity density indicator value at this time. However, due to the low tourist and community activities, Chinatown had the best air quality indicator at 12:00

Table 4  
Climate condition in Semarang Heritage Area

Num	Indicators	Time	Semarang Heritage Area							
			Old Town (N=3)	Value	Kp. Melayu (N=3)	Value	Kp. Pekojan (N=3)	Value	China Town (N=3)	Value
1	Temperature (°C)	10:00 AM	32.37	1	33.97	2	33.93	1	35.30	2
		12:00 PM	40.13	1	38.23	1	36.60	1	39.10	1
		16:00 PM	37.93	1	34.77	1	35.30	1	35.30	1
2	Air Quality (Aqi)	10:00 AM	89.33	2	85.67	2	99.67	2	88.67	2
		12:00 PM	107.00	1	103.33	1	108.33	1	99.00	2
		16:00 PM	153.67	1	132.33	1	137.33	1	132.67	1
3	Shadow (m)	10:00 AM	2.20	1	2.65	1	1.50	1	4.17	1
		12:00 PM	1.12	1	1.70	1	1.10	1	2.17	1
		16:00 PM	8.90	2	3.02	1	2.67	1	5.17	2
4	Activity Density	10:00 AM	Low	2	Low	2	Low	2	Low	2
		12:00 PM	Medium	1.5	Medium	1.5	Medium	1.5	High	1
		16:00 PM	High	1	Low	2	Medium	1.5	Medium	1.5
5	Activity Type *dominant condition in a cultural heritage landscape	Tourism, Office, Trade and Service	Tourism, Trade and Service	1	Tourism, Trade and Service	1	Trade and Settlement	1.5	Trade and Settlement	1.5
		Decorative, Shade, Low Density	Decorative, Shade, Low Density	1	Shade, Low Density	1	Shade, None, Low Density	1	None, Decorative, Low Density	1

Note. Getting closer to 1 (Poor, high level of vulnerability); getting closer to 2 (Good, low level of vulnerability)

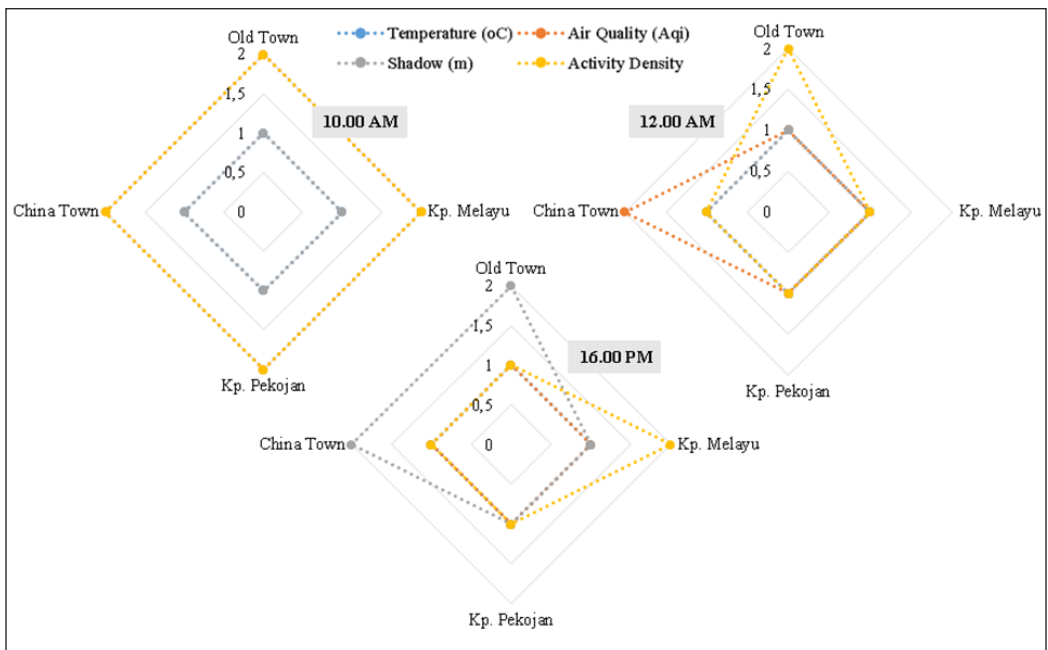


Figure 3. Climate condition in Semarang Heritage Area per time

PM. This was because shopping activities tend to be quiet during the day, and workers prefer to rest before resuming activities at 1:00 PM.

At 4:00 PM in the Semarang Cultural Heritage Area, there is a high variation in climate conditions based on various indicators. The Old Town experiences poor activity conditions, temperature, and air quality due to increasing tourist density. However, the shadow indicator shows good conditions as the length of the shadow reaches its maximum compared to other times. In contrast, Kampong Pekojan still has poor scores on every indicator. On the other hand, Kampong Melayu has a good activity density at 4:00 PM due to the cessation of some shopping activities at night. Similarly, Chinatown also has good shading conditions compared to other

indicators. At 4:00 PM, the alignment of the shophouses and the road grid helps optimise the length of the shadow produced, as it is influenced by the height of the building and the width of the road (H/W).

Data was collected from 12 sample locations to assess climate change indicators. Each location was chosen for its unique characteristics in different heritage areas (see Figure 4). After processing the data, the crucial temperature values, which are the most essential climate change indicators, were obtained. The air temperature and the damage conditions of each historic building were compared to determine the effect. Typical Chinese historical buildings, including numerous temples and trading centres such as shophouses, characterise Semarang's Chinatown.

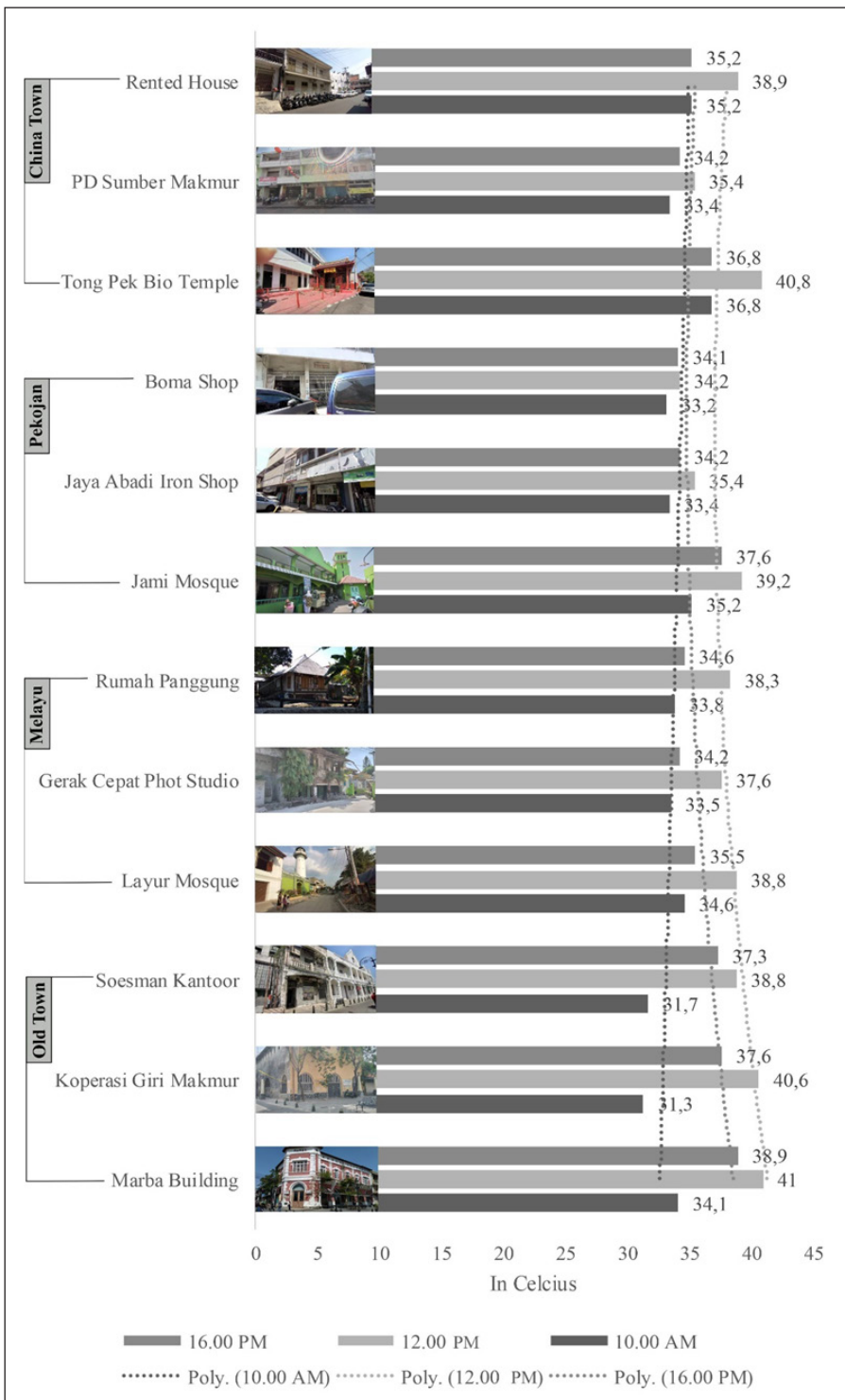


Figure 4. Heritage building condition towards climate change (temperature)

Most of the buildings in Chinatown have been well maintained due to infrastructure improvements carried out by the Semarang City Government in 2021. The local community still upholds the belief and tradition that the temple, as a place of worship, is one of the holy places that must be protected from damage. Similarly, their housing, as a source of daily livelihood, has been well maintained until now. However, the air temperature at three locations, namely a rented house, Tong Pek Bio Temple, and PD Sumber Makmur was relatively high, with low humidity levels ( $>27^{\circ}\text{C}$ ).

Meanwhile, Kampong Pekojan has characteristics almost similar to Chinatown because of the many shophouses throughout the area. Jami Mosque, one of the historical buildings of Islamic civilisation in Semarang, creates a sense of architectural mixing in this area. As residences and places of worship are considered components of life for the community, most of the buildings in this location are still well-maintained, and there are no visible signs of significant building damage due to high temperatures that can reach a height of  $39.2^{\circ}\text{C}$ . In conclusion, Chinatown and Kampong Melayu show a high level of maintenance based on the scale of the buildings' importance for the core community's life as an economic and religious resource.

Kampong Melayu differs slightly from the two previous locations. The buildings in this area still showcase the characteristics of Arabic and Malay architecture, primarily using a combination of wood and concrete materials. Historic buildings in this location

were damaged, including the Rapid Motion Studio Building, which suffered material damage and was overgrown with moss. Some homes were also severely damaged, and the level of weathering caused by the elements was extremely high. Kampong Melayu is the area closest to the sea compared to the other three locations.

Additionally, persistent climate change leads to problems such as tidal flooding and land subsidence every year. As a result, most buildings are vulnerable to damage from environmental conditions such as water and air temperature. The wood material, highly susceptible to weathering, significantly affects the air temperature conditions of the area. It was found that the average air temperature in this location can reach  $38.8^{\circ}\text{C}$  (not suitable for outdoor activities). Following the Decree of the Mayor of Semarang Number 050/801 of 2014, Kampong Melayu and its surroundings are still designated as slum areas with severe damage to residential infrastructure.

Old Town Semarang underwent significant revitalisation and repairs in 2018, led by the Semarang City Government. The improvements focused on environmental infrastructure, such as roads and drainage, to protect buildings from the adverse effects of climate change, particularly the high average temperature of up to  $40.6^{\circ}\text{C}$  daily. The colonial buildings have solid foundations, and some are made of natural stone, which helps absorb heat. The area is highly vulnerable to damage due to high tourism activities, but most structures, including cafes and restaurants, are in good

condition thanks to special preservation rules. Unlike the other areas, Old Town has fewer residential communities in its heritage area, minimising the impact of residential activities on the quality of historic buildings.

The condition of historic buildings in various locations is significantly influenced by the patterns of community activities and habits related to the building's function regarding climate change. For instance, activities like worship and trade necessitate high community effort to maintain the structure in good condition. However, buildings constructed with materials that are not weather-resistant, such as wood and concrete, are more susceptible to damage from high temperatures and water elements, particularly in coastal areas prone to rain and tidal flooding.

### **Assessment of Vulnerability and Adaptation Towards Climate Change**

The assessment results of the heritage area's vulnerability to climate indicators are then reprocessed to determine the level of damage, vulnerability value, and adaptation level. Then, the final value of the heritage area condition is found to determine relevant recommendations. Table 5 shows that Old Town has the highest final value of vulnerability and adaptation compared to other locations. This is due to the improvement of environmental infrastructure carried out by the Semarang City Government to maintain the quality of the environment.









Due to the humid air condition, some damage was still discovered in a small portion of the building materials in the

narrow alleys, and the buildings remained abandoned. On the other hand, tourists' high daily activity is an indicator that needs to be investigated further in Old Town because it will have a long-term impact, particularly on motorised vehicle activity, which can damage the structure of historic buildings. The landscape around the Old Town is very supportive as a source of water absorption because there are several green and blue areas in the form of rivers and polders. This causes a low level of damage to historic buildings due to floods. With a suitable handling system and adequate regulations, the level of vulnerability in the Semarang Old Town area can be reduced, as shown by the resulting value of 1.63 with a low level of vulnerability.

Kampong Melayu still has a relatively high level of vulnerability to building damage due to climate change. However, the level of adaptation due to the impact of the changes is still quite good when viewed from the structure of the building. One of them is the form of a historic building in the form of a house on stilts, which can minimise the impact of floods that often occur in this location. However, building materials made of wood and concrete still need extra protection from adverse environmental influences such as high air temperatures and pollution. Some buildings, such as the Quick Motion studio, were damaged due to neglect, and the materials were not resistant to weather changes. In addition, many buildings with positions that are not conducive to sun exposure and at peak lighting will be fully illuminated, thus increasing the level of vulnerability.



Table 5  
*Vulnerability assessment and level of adaptation of Semarang Heritage Area*

No.	Landscape Conditions	Damage	Vulnerability (V)	Adaptation (A)	Value = Avr V.A
1	 Old Town		Value from the average of Climate Change Indicators: 1.25 (High)	The value of the amount of damage and the Building Structure: 2.00 (Good)	1.63
2	 Kampong Melayu		Value from the average of Climate Change Indicators: 1.32 (High)	The value of the amount of damage and the Building Structure: 2.00 (Good)	1.66
3	 Kampong Pekojan		Value from the average of Climate Change Indicators: 1.27 (High)	The value of the amount of damage and the Building Structure: 1.00 (Poor)	1.13
4	 China Town		Value from the average of Climate Change Indicators: 1.43 (High)	The value of the amount of damage and the Building Structure: 1.00 (Poor)	1.22

*Note.* Getting closer to 1 (Poor, high level of vulnerability); getting closer to 2 (Good, low level of vulnerability)

The vulnerability value obtained at this location is 1.66, which is the lowest level of vulnerability compared to other locations.

Kampong Pekojan has the lowest vulnerability and adaptation assessment results compared to other locations, which

is only 1.13 (high level of vulnerability). This is because Kampong Pekojan does not have a systematic environmental care and improvement system compared to other heritage areas. Its location in the city's centre, which has a high density of buildings, increasingly threatens the physical quality of its historic buildings. Some old-style shophouse buildings also appear unkempt and have some material damage, such as moss. Motorised vehicles pass by this location every day, increasing the level of pollution and shocks received. In contrast to Chinatown, people in Kampong Pekojan pay little attention to cultural heritage buildings because this location has no strong customs and beliefs.

Chinatown's vulnerability and adaptation value is 1.22 (high level of vulnerability) and is the lowest value after Kampong Pekojan. This is because the level of adaptation possessed by Chinatowns in maintaining historical building structures is still low. The building still utilises the old conditions without adjusting to the current environmental conditions (adaptive). However, the improvement of tourism-supporting infrastructure has improved the condition of this area from year to year. Trading activity is very high from morning to evening; it turns into tourist activity at night. The high activity in the area at any time threatens the quality of the cultural heritage buildings in this location.

The average grouping of vulnerability conditions in the Semarang Heritage Area can be seen spatially in Figure 5. This figure shows that Cultural Heritage Areas located

close to the coast (Java Sea) tend to have a lower level of vulnerability compared to locations closer to the city centre. This can happen because the focus on disaster management around the coastal areas of Semarang City has been going quite well and has priority on locations near the sea (with high levels of degradation). In recent years, the City of Semarang has made massive improvements in regulations and development in heritage areas, especially those with a high potential for coastal disasters. One example is what happened in the Old Town area, which underwent regular restructuring in 2018.

Due to the results of Yanuardi (2009) and Sadirin (2008) on the causes of damage to the Borobudur Temple Cultural Heritage, historic buildings have damage problems caused by extreme weather, causing weathering of building materials. This study recommends careful maintenance measures for cultural heritage buildings with building materials susceptible to weather. Among them can be first aid, cleaning, repair, consolidation, preservation, and protection. There are particular techniques for cleaning moss attached to historical buildings, such as using the steam cleaning method, namely using pressurised hot water and a brush and clean water. Restrictions on motorised vehicle activity must also be done to minimise the resulting air pollution. Building materials easily damaged by extreme weather changes can be replaced with waterproof coatings through smear or water-repellent spray methods. In addition, it is necessary to improve drainage quality

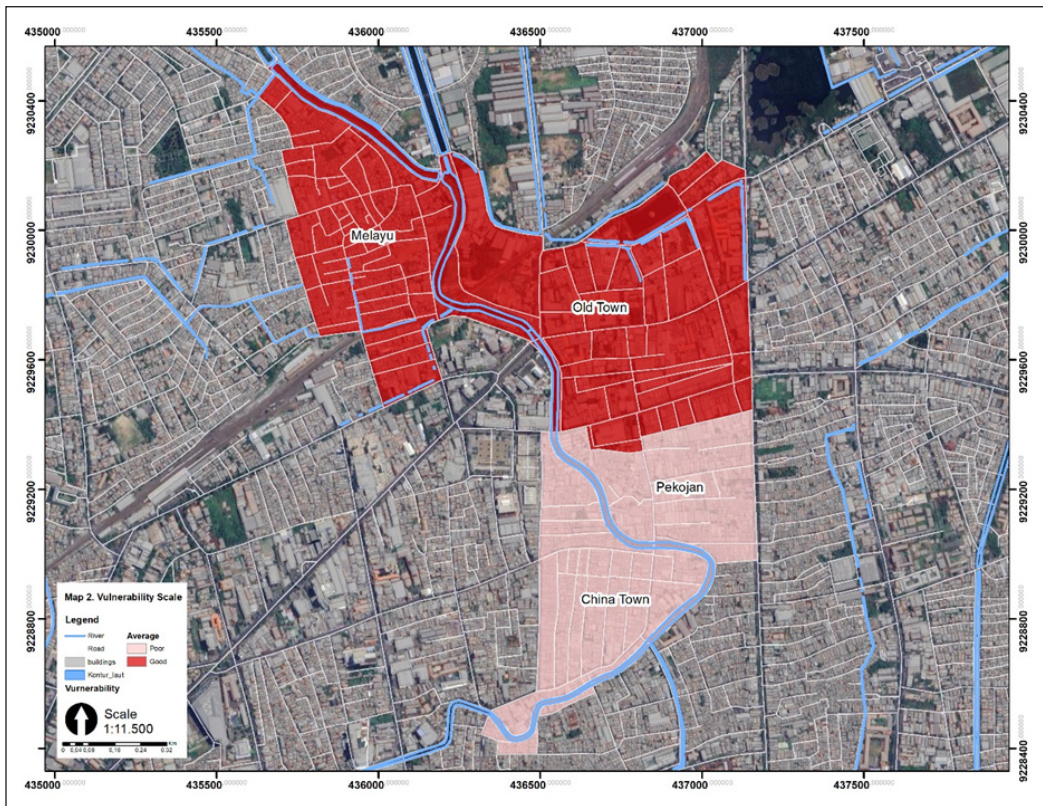


Figure 5. Average scale of vulnerability in Semarang Heritage Area

by using river flows that connect the four research sites as water catchment areas. In addition, technical engineering, such as that carried out by Kampong Melayu, can be carried out on certain buildings by changing the structure of the building into a house on stilts.

In general, the study location (Semarang Heritage Area) is a historical tourist area with a level of tourist visits predicted to continue to increase after the COVID-19 pandemic. This becomes a challenge in handling historical heritage vulnerabilities if they are not managed better. The dualism between the economic needs of tourism and the preservation of historical heritage

is an exciting issue experienced by various historical areas. Based on research findings by Leh et al. (2021), the rapidly growing tourism industry could increase the risk of environmental damage. Increasing the resilience of communities around the area is highly recommended as an essential step in preventing worse impacts. In Malaysia, using non-alternative energy is one of the main problems that triggers the high impact of climate change in tourist areas. Therefore, support for advances in low-carbon technology can be an alternative to minimising the effects of climate change in the future, one of which is in vulnerable locations such as historical areas.

## CONCLUSION

The results of the analysis found a significant influence between climatic conditions and the quality of historic buildings with different landscape forms. Most locations experience high solar radiation levels, so the air temperature is always high. In addition, high activity levels in some areas cause potential damage to building structures due to the intensity of movement. The similarity of the condition of the heritage area in this study is that essential activities such as trade and engagement and certain beliefs can increase public awareness in protecting historic buildings.

The adaptive capacity of the people around the historic area primarily determines the level of vulnerability. The mixture of tourism and local community activities can threaten the preservation of cultural heritage sites because regulations for communities outside the area usually tend to be complicated. Implementing reasonable regulations has so far been one of the keys to success in dealing with environmental damage in historic areas, such as what happened in Old Town Semarang. Optimally structuring tourist areas can reduce the impact of environmental degradation from sea level rise and land subsidence while increasing tourist visits. However, a particular management system is needed for historical area zones close to the city centre because the analysis results found that historical areas in these locations have a higher level of vulnerability. This can be influenced by the high building density level and human activity approaching the city centre.

## Implication of Theory and Practice

Climate-adaptive historical heritage sites are formed from indicators in the Climate Sensitive Urban Design (CSUD) concept, vulnerability theory, and climate change resilience theory (Adger, 2006; Folke, 2006; Kurniati et al., 2023; Turner et al., 2003; Walker et al., 2004). Based on the research on the existing condition of the historic area in Semarang City, the vulnerability scheme of Semarang Heritage Area to climate change is summarised in Figure 6.

The sensitivity component can be realised in practice using several indicators and sub-indicators. Based on this component, historical heritage sites can apply planning and structuring to the scope of the area, in this case, historical kampong, by making arrangements to improve thermal comfort. In the historical building component, the arrangement is recommended to comply with the preservation requirements of historical buildings in accordance with international and local regulations. This component can be applied by conducting technical engineering to revitalise historic buildings damaged by climate change. On the other hand, the existing Semarang Heritage Area is mostly used as a tourism trade and service area that always has a high level of activity. The high level of activity in the area can damage the structure of historic buildings due to the resulting shocks. Therefore, it is necessary to regulate activity zones through zoning regulations, starting from within the area and moving to the surrounding area.

The adaptive capacity component is necessary to increase the chances of success

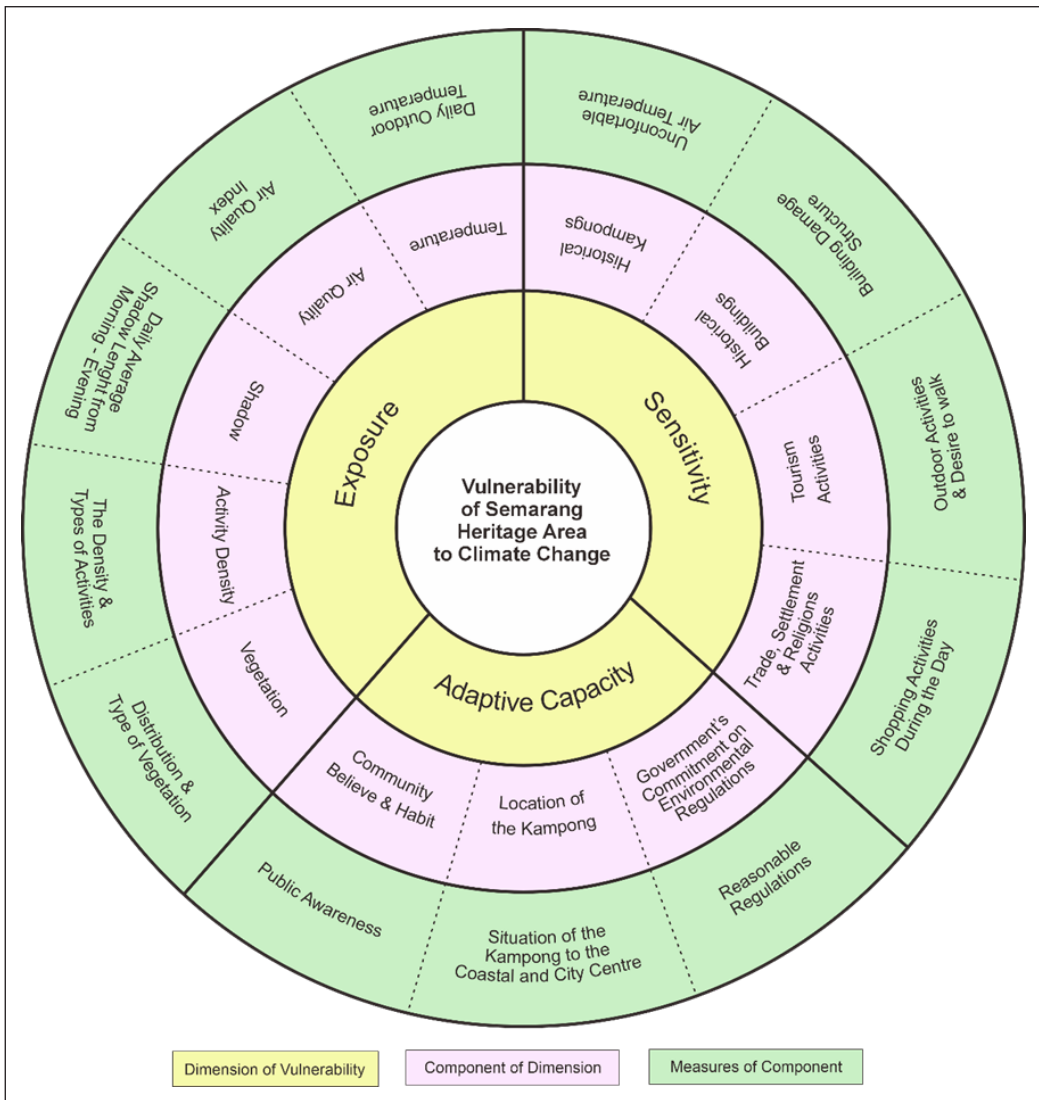


Figure 6. Vulnerability scoping diagram of Semarang Heritage Area to climate change

in vulnerability theory and resilience theory (Adger, 2006; Folke, 2006; Turner et al., 2003; Walker et al., 2004). The role of the community and government is needed to carry out adaptive actions to climate change, such as by forming climate-resilient communities and preparing relevant regulatory documents. In addition, the location of the historic area near the

coastal area requires a water management-based structuring system. The Semarang City Government has implemented this through various programmes, one of which is the construction of an integrated drainage system.

The exposure component describes the application of the CSUD concept, which emphasises climate adaptive indicators,

such as temperature, air quality, shadow, activity density, and vegetation. Based on previous research conducted by Kurniati et al. (2020, 2023) Fog, it was found that shadow and vegetation indicators are the most likely indicators to be applied in the Semarang Heritage Area. This study also found that increasing shadow production in historic buildings by applying canopies and increasing the presence of shading vegetation can improve the thermal comfort of historic areas.

### **Limitations and Recommendations for Future Studies**

This study still has limitations in quantitative data testing, especially to determine how much influence each adaptation indicator has on the level of vulnerability in the Semarang Heritage Area. This research has also not conducted an in-depth analysis of all indicators, especially for the CSUD concept, which requires detailed samples at several location points in each of the Heritage Kampongs as study locations. This is very important because each Heritage Kampong has very different landscape characteristics and activities.

Future research also needs to consider the characteristics of the morphological formation of historic areas in each study location. Semarang City, as one of the cities with a long history, has a strong connection with its historic kampongs. Therefore, future research is suggested to develop the concept of the historical development of Semarang City towards a climate change adaptation approach in each Historical Kampong. Other

relevant studies have also overlooked these approaches.

The researchers recommend that several additional regulations be applied to the historic building maintenance system in the heritage area of Semarang City, including maintaining building materials with materials that are resistant to extreme weather due to climate change, as was done in the Borobudur Temple area. In addition, changes in building structures that are adaptive to climate change can also be carried out on certain buildings, such as turning the building into a house on stilts to avoid the impact of flood disasters. This study is also still open to further research, especially on assessing the level of influence of each climate change indicator on the damage to historic buildings.

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### **REFERENCES**

- Adger, W. N. (2006). Vulnerability. *Global Environmental Change*, 16(3), 268-281. <https://doi.org/10.1016/j.gloenvcha.2006.02.006>
- Ahima, R. S. (2020). Global warming threatens human thermoregulation and survival. *The Journal of Clinical Investigation*, 130(2), 559-561. <https://doi.org/10.1172/JCI135006>
- Alqausar, D. (2019). Indeks kualitas udara atau Air Quality Index (AQI). *Indonesia Environment & Energy Center (IEC)*. <https://environment-indonesia.com/air-quality-indeks-aqi-atau-indeks-kualitas-udara/>

- Cook, B. I., Anchukaitis, K. J., Touchan, R., Meko, D. M., Cook, E. R. (2016). Spatiotemporal drought variability in the Mediterranean over the last 900 years. *Journal of Geophysical Research Atmospheres*, 121(5), 2060-2074. <https://doi.org/10.1002/2015JD023929>
- Emmanuel, M. R. (2005). *An urban approach to climate-sensitive design*. Spon Press.
- Fatorić, S., & Seekamp, E. (2017). Are cultural heritage and resources threatened by climate change? A systematic literature review. *Climate Change*, 142, 227-254. <https://doi.org/10.1007/s10584-017-1929-9>
- Febbiyana, A., & Suwandono, D. (2016). Penurunan Kampung Melayu sebagai Kawasan Cagar Budaya Kota Semarang [Decline of Kampung Melayu as a Cultural Heritage Area in the City of Semarang]. *Ruang*, (4), 341-348.
- Folke, C. (2006). Resilience: The emergence of a perspective for social-ecological systems analyses. *Global Environmental Change*, 16(3), 253-267. <https://doi.org/10.1016/j.gloenvcha.2006.04.002>
- Gomez-Heras, M., & McCabe, S. (2015). Weathering of stone-built heritage: A lens through which to read the Anthropocene. *Anthropocene*, 11, 1-13. <https://doi.org/10.1016/j.ancene.2015.12.003>
- Grøntoft, T. (2011). Climate change impact on building surfaces and façades. *International Journal of Climate Change Strategies and Management*, 3(4), 374-385. <https://doi.org/10.1108/17568691111175669>
- Hakim, L. (2013). Kajian arsitektur lanskap rumah tradisional Bali sebagai pendekatan desain arsitektur ekologis [Study of traditional Balinese house landscape architecture as an ecological architectural design approach]. *NALARs*, 12(1).
- Harley, C. D. G., Hughes, A. R., Hultgren, K. M., Miner, B. G., Sorte, C. J. B., Thornber, C. S., Rodriguez, L. F., Tomanek, L., & Williams, S. L. (2006). The impacts of climate change in coastal marine systems. *Ecology Letters*, 9, 228-241. <https://doi.org/10.1111/j.1461-0248.2005.00871.x>
- He, Q., & Silliman, B. R. (2019). Climate change, human impacts, and coastal ecosystems in the Anthropocene. *Current Biology*, 9(9), R1021-R1035. <https://doi.org/10.1016/j.cub.2019.08.042>
- Heshmati, H. M. (2020). Impact of climate change on life. In S. Sarvajayakesavalu & P. Charoensudjai (Eds.), *Environmental Issues and Sustainable*. IntechOpen. <https://doi.org/10.5772/intechopen.94538>
- Hsiang, S., & Kopp, R. E. (2018). An economist's guide to climate change science. *Journal of Economic Perspectives*, 32, 23-32. <https://doi.org/10.1257/jep.32.4.3>
- Koch-Nielsen, H. (2002). *Stay cool: A design guide for the built environment in hot climates*. Routledge. <https://doi.org/10.4324/9781315074429>
- Koerniawan, M. D. (2015). *The simulation study of thermal comfort in urban open spaces of commercial area using EnviMet software*. AIJ Japan.
- Kurniasari, A., & Nurini. (2016). Kajian pelestarian Kampung Pekojan sebagai kawasan bersejarah di Kota Semarang [Study of the preservation of Pekojan Village as a Historical Area in Semarang City]. *Ruang*, (4), 283-292.
- Kurniati, R., Kurniawati, W., Dewi, D. I. K., & Syahri, E. K. (2023). Climate sensitive urban design in cultural landscape. *ARTEKS: Jurnal Teknik Arsitektur*, 8(3), 343-356. <https://doi.org/10.30822/arteks.v8i3.2181>
- Kurniati, R., Kurniawati, W., Kusumo Dewi, D. I., & Astuti, M. F. K. (2021). Measurement of thermal comfort in urban public spaces Semarang, Indonesia. *Pertanika Journal of Science and Technology*, 9(3), 1371-1395. <https://doi.org/10.47836/pjst.29.3.01>

- Kurniati, R., Kurniawati, W., Kusumo Dewi, D. I., Sarasadi, A., & Syahri, E. K. (2020). Comfortable pedestrian ways with a climate sensitive urban design approach in The Old City Semarang. *E3S Web of Conferences*, 02, Article 06041. <https://doi.org/10.1051/e3sconf/202020206041>
- Lakitan, B. (2004). *Fundamental of plant physiology*. PT Raja Grafindo Persada.
- Laurie, M. (1990). *Pengantar kepada arsitektur pertamanan* [Introduction to landscape architecture]. Intermatra.
- Leh, F. C., Isa, N. K. M., Ibrahim, M. H., Ibrahim, M., Yunos, M. Y. M., & Ibrahim, J. A. (2021). Low-carbon tourism approach as an alternative form for tourism development: A review for model development. *Pertanika Journal of Social Sciences and Humanities*, 9(4), 2431-2451. <https://doi.org/10.47836/pjssh.29.4.19>
- Leissner, J., Kilian, R., Kotova, L., Jacob, D., Mikolajewicz, U., Brostrom, T., Ashley-Smith, J., Schellen, H. L., Martens, M., Schijndel, J. V., Antretter, F., Winker, M., Bertolin, C., Camffo, D., Simeunovic, G., & Vyhldal, T. (2015). Climate for culture: Assessing the impact of climate change on the future indoor climate in historic buildings using simulations. *Heritage Science*, 3, Article 38. <https://doi.org/10.1186/s40494-015-0067-9>
- Lelieveld, J., Proestos, Y., Hadjinicolaou, P., Tanarhte, M., Tyrllis, E., & Zittis, G. (2016) Strongly increasing heat extremes in the Middle East and North Africa (MENA) in the 1st century. *Climate Change*, 137, 245-260. <https://doi.org/10.1007/s10584-016-1665-6>
- Lindsey, R., & Dahlman, L. (2024, January 18). *Climate change: Global temperature*. Climate.gov. <https://www.climate.gov/news-features/understanding-climate/climate-change-global-temperature>
- McMichael, A. J., & Lindgren, E. (2011). Climate change: Present and future risks to health, and necessary responses. *Journal of Internal Medicine*, 270(5), 401-413. <https://doi.org/10.1111/j.1365-2796.2011.02415.x>
- Megarani, A. (2022, June 10). *Borobudur bertahan dari gempuran iklim selama 1000 tahun* [Borobudur survives climate attacks for 1,000 years]. Forest Digest. <https://www.forestdigest.com/detail/1789/iklim-candi-borobudur>
- Menlhk. (2016, September 13). *Indonesia dan Uni Eropa gelar Pekan Diplomasi Iklim* [Indonesia and the European Union hold Climate Diplomacy Week]. European Union External Action. [https://www.eeas.europa.eu/node/9704\\_fr](https://www.eeas.europa.eu/node/9704_fr)
- Ministry of Environment and Forestry. (2020). *Roadmap Nationally Determined Contribution (NDC) Adaptasi Perubahan Iklim* [Climate Change Adaptation]. <https://icleiseas.org/wp-content/uploads/2020/09/GIZ-Roadmap-NDC-EKSUM-15-July.pdf>
- Mulyana, W., Dodman, D., Zhang, S., & Schensul, D. (2013). *Climate vulnerability and adaptation in the Semarang Metropolitan area: A spatial and demographic analysis* (Technical briefing). UNFPA. <https://www.iied.org/10647iied>
- Oke, T. R. (2006). Towards better scientific communication in urban climate. *Theoretical and Applied Climatology*, 84, 179-190. <https://doi.org/10.1007/s00704-005-0153-0>
- Prabowo, B. N., & Harsritanto, B. I. R. (2018). Kota Lama Semarang menuju status pusaka dunia UNESCO: Apa itu status World Heritage? [The Old City of Semarang is headed for UNESCO World Heritage Status: What is World Heritage Status?]. *MODUL*, 18(1), 51-53. <https://doi.org/10.14710/mdl.18.1.2018.51-53>
- Reeder-Myers, L. A. (2015) Cultural heritage at risk in the twenty-first century: A vulnerability assessment of coastal archaeological sites in the United States. *The Journal of Island and Coastal Archaeology*, 10(3), 436-445. <https://doi.org/10.1080/15564894.2015.1008074>



- Ronco, P., Gallina, V., Torresan, S., Zabeo, A., Semenzin, E., Critto, A., & Marcomini, A. (2014). The KULTURisk regional risk assessment methodology for water-related natural hazards – part 1: Physical–environmental assessment. *Hydrology and Earth System Sciences*, 18(12), 5399-5414. <https://doi.org/10.5194/hess-18-5399-2014>
- Sabbioni, C., Brimblecombe, P., & Cassar, M. (2010). *The atlas of climate change impact on European cultural heritage: Scientific analysis and management strategies*. Anthem Press.
- Sabbioni, C., Cassar, M., Brimblecombe, P., & Lefevre, R. A. (2008). *European and Mediterranean Major Hazards Agreement (EUR-OPA): Vulnerability of cultural heritage to climate change*. [https://www.coe.int/t/dg4/majorhazards/activities/2009/ravello15-16may09/ravello\\_apcat2008\\_44\\_sabbioni-jan09\\_en.pdf](https://www.coe.int/t/dg4/majorhazards/activities/2009/ravello15-16may09/ravello_apcat2008_44_sabbioni-jan09_en.pdf)
- Sabbioni, C., Cassar, M., Brimblecombe, P., Tidblad, J., Kozłowski, R., Drdacky, M., Saiz-Jimenez, C., Grøntoft, T., Wainwright, I., Arino, X. (2006). Global climate change impact on built heritage and cultural landscapes. *Proceedings of the International Conference on Heritage, Weathering and Conservation, HWC 2006, 1*, 395-401.
- Sadirin, H. (2008). *Diktat Perkuliahan: Konservasi bangunan dan situs* [Lecture Diktat: Conservation of buildings and sites], Program Studi Arkeologi. Program Pascasarjana Fakultas Ilmu Pengetahuan Budaya Universitas Indonesia.
- Schilling, J., Hertig, E., Trambly, Y., & Scheffran, J. (2020). Climate change vulnerability, water resources and social implications in North Africa. *Regional Environmental Change*, 20, Article 15. <https://doi.org/10.1007/s10113-020-01597-7>
- Sesana, E., Gagnon, A. S., Bonazza, A., & Huges, J. J. (2020). An integrated approach for assessing the vulnerability of World Heritage Sites to climate change impacts. *Journal of Cultural Heritage*, 41, 211-224. <https://doi.org/10.1016/j.culher.2019.06.013>
- Shashua-bar, L., & Hoffman, M. E. (2003). Geometry and orientation aspects in passive cooling of canyon streets with trees. *Energy and Buildings*, 35(1), 61-68. [https://doi.org/10.1016/S0378-7788\(02\)00080-4](https://doi.org/10.1016/S0378-7788(02)00080-4)
- Stathopoulos, T., Wu, H., & Zacharias, J. (2004). Outdoor human comfort in an urban climate. *Building and Environment*, 39(3), 297-305. <https://doi.org/10.1016/j.buildenv.2003.09.001>
- Turner, B. L., Kasperson, R. E., Matson, P. A., McCarthy, J. J., Corell, R. W., Christensen, L., Eckley, N., Kasperson, J. X., Luers, A., Martello, M. L., Polsky, C., Pulsipher, A., & Schiller, A. (2003). A framework for vulnerability analysis in sustainability science. *Proceedings of the National Academy of Sciences*, 100(14), 8074-8079. <https://doi.org/10.1073/pnas.1231335100>
- United Nations Educational, Scientific and Cultural Organization. (2013). *Managing cultural world heritage*. UNESCO; World Heritage. <https://whc.unesco.org/en/managing-cultural-world-heritage/>
- Wahjoerini, & Handayani, I. D. (2020). Kajian karakteristik permukiman kumuh Kampung Pekojan Semarang [Study of the Characteristics of Slum Settlements in Pekojan Village, Semarang]. *Jurnal Planeearth*, 5(2), 84-87. <https://doi.org/10.31764/jpe.v5i2.2600>
- Walker, B., Holling, C. S., Carpenter, S. R., & Kinzig, A. (2004). Resilience, adaptability and transformability in social-ecological systems. *Ecology and Society*, 9(2), Article 5. <https://doi.org/10.5751/ES-00650-090205>
- World Heritage Committee. (2006). *30th Session of The World Heritage Committee*. <https://whc.unesco.org/en/sessions/30COM>
- Wu, X., Lu, Y., Zhou, S., Chen, L., & Xu, B. (2016). Impact of climate change on human infectious

- diseases: Empirical evidence and human adaptation. *Environment International*, 86, 14-23. <https://doi.org/10.1016/j.envint.2015.09.007>
- Yanuardi, M. H. (2009). Penyebab kerusakan dan pelapukan beserta penggunaannya: Studi atas faktor biotik dan abiotik di Candi Borobudur [Causes of damage and weathering and their use: A study of biotic and abiotic factors at Borobudur Temple]. *Jurnal Sejarah Lontar*, 6(2), 1-9.
- Yeang, K. (2006). *Ecodesign: A manual for ecological design*. John Wiley & Sons Ltd.
- Yu, C., & Hien, W. N. (2009). Thermal impact of strategic landscaping in cities: A review. *Advances in Building Energy Research*, 3(1), 237-260. <https://doi.org/10.3763/aber.2009.0309>

# **Towards Designing a Project-Based Learning-Technology Based Learning (PBL-TBL) Science Module to Promote Social Interaction Among Preschool Children with the Integration of Blended Learning Approach**

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## **ABSTRACT**

The declining number of Malaysian students opting for the science stream has impacted the country's global PISA ranking. This paper presents the development of a Project-based Learning-Technology-based Learning (PBL-TBL) science module for preschool children, aiming to foster early interest in science through collaborative activities. The study employs a mixed-method design, incorporating three phases of the ADDIE Model: needs analysis, design, and development. In the needs analysis phase, interviews were conducted with nine preschool educators to assess the necessity of the module. During the design phase, six experts evaluated the prototype to ensure its effectiveness. The development phase involved nine experts assessing the usability of the MyPraSains learning module,

specifically designed for Malaysian preschools. In the implementation phase, 25 preschoolers engaged in an activity from the module to test its practical application. Finally, the evaluation phase involved an educator interview to assess the module's impact based on expert feedback. Findings revealed that experts unanimously agreed on the validity of the MyPraSains module, achieving a content validity index (CVI) of 1.00. Additionally, children demonstrated significant social development through active participation in module activities. Educators also endorsed the module, recommending its adoption in preschool settings as a benchmark for science education

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quality in Malaysia. This study highlights the potential of early science exposure in nurturing long-term interest in STEM fields, addressing the ongoing decline in science stream enrolment.

*Keywords:* Learning module, preschool, project-based learning, science education, technology-based learning

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## INTRODUCTION

The social interaction development of children is significantly affected by various factors such as the individual, gender, parental roles, and preschool settings. A strong correlation exists between social skills and happiness in childhood (Rossano et al., 2022). The cultivation of environmental acceptance and the cultivation of positive emotions during social activities are fundamental characteristics that hold significant importance in fostering a prosperous and pleasurable future existence (Mayar, 2013). The early stages of children's social development exhibit variations between girls and boys (Sjöman et al., 2021). Research suggests that girls tend to demonstrate faster development compared to boys (A. H. Mohamed, 2018). However, it is worth noting that the preschool setting can offer a fair and equitable environment that provides children with opportunities for development through positive engagement in social activities (Sjöman et al., 2021). Furthermore, incorporating engaging interactive social activities, such as using interactive teaching materials, can effectively facilitate positive interpersonal relationships among preschool educators during learning and facilitating sessions (Luen, 2017).

Moving on, debating the use of technology in education settings, several

research have demonstrated that it is a platform to produce the elements of 21st-century learning (Tripathi et al., 2023). Technology integration has been envisioned to support the development of 21st-century skills and abilities in teaching and learning life sciences. Educators specifically mentioned that the use of technology in the science classroom helps children improve critical thinking, problem-solving, interaction, teamwork, and computational thinking skills (Ramaila & Molwele, 2022). Besides, by utilising digital tools in the classroom, educators and children can acquire new information, abilities, and experiences (Demir & Akpinar, 2018). Furthermore, exposing children to technology-based learning (TBL) will help them learn about things outside their assumptions and thinking boxes. When juxtaposed with the impact of technological innovation on the transformation of society and the social lives of individuals outside the classroom, the metamorphosis of learning through the incorporation of technology has gained traction (Ilomäki & Lakkala, 2018). On the other hand, according to Tomar and Sharma (2022), this approach may reduce educators' costs by experience, offering children a tech-centred world, fostering better relationships between children through collaborative behaviour, and keeping children interested and engaged.

As a result, the integration of PBL and TBL in science classrooms is not only promoting children to gain new knowledge related to the concepts of science, but it can also enhance the collaboration of child peers (Markula & Aksela, 2022).

### **Problem Statements**

Educators in the preschool context have the responsibility of implementing science instruction in preschool. However, few educators have recently expressed their ability to take on the duty, but they have also highlighted certain problems that arise while attempting to apply the learning process. A study by Ramli et al. (2017) revealed that educators continue to exhibit inadequate readiness to implement science instruction. Furthermore, upon closer discussion of the context of early childhood education, A. Ghazali et al. (2024) have elucidated that early childhood educators experienced significant apprehension when conducting early science activities. This is primarily due to their limited teaching proficiency and inadequate grasp of scientific concepts. This can be backed by the findings of Daud's (2019) study, where she mentioned that early childhood education educators' knowledge is moderate in undertaking high-impact activities. This situation suggests a challenge for them to delve deeper into new knowledge, such as researching more complex science concepts and understanding physics topics. More profoundly, a qualitative study by Leung (2023) revealed that the primary reasons for the inability of teachers to enhance

the quality of early science education are attributed to insufficient knowledge of suitable teaching methodologies, lack of experience in executing science activities, deficiencies in classroom management, inadequate instructional resources, and infrastructural limitations. Thus, this notion has demonstrated that educators' grasp of mastering knowledge has not been able to promote the development of children's learning skills.

Moreover, the absence of tangible resources in schools contributes to the deterioration of preschool science education quality (Barenthien & Dunekacke, 2022). To support this notion, a study conducted by Han et al. (2022) has revealed that rural schools, in particular, have serious problems in implementing practical science activities compared to urban schools because they do not have access to materials to implement them. On top of that, Abdul Rasid (2022) disclosed that educators are unable to provide the most notable instruction possible due to their perception that the resources available to them are inadequate and that it is hard to provide children with the chance to explore their learning in a collaborative and transparent manner. Although the difficulties mentioned seem common in today's education system, these challenges will have a huge impact on the future of children since the actions done by science educators in early schooling will determine the direction and concentrate on the creation and preparation of society for the future (Garzón, & Díaz-Moreno, 2019). As a result, M. N. A. Ghazali and Yusof (2022)

emphasised the use of hands-on activities to ensure children's learning about science concepts is successfully implemented. This includes the application of PBL by incorporating TBL, which is critical because it can increase concentration and focus on children and encourage them to acquire new experiences. More thoroughly, A. Ghazali et al. (2023) emphasised that the most fundamental use of technological resources in the classroom environment is to offer children educational video displays that help them understand concepts more completely and precisely.

This study will highlight five research topics arising from the problems highlighted, including:

- i. What are the needs for developing the PBL-TBL Science Module in early childhood education?
- ii. What key aspects must be included in the design of the PBL-TBL Science Module to support the social development of children's interactions?
- iii. How effective is the development of the PBL-PBL Module in promoting children's social development through interactions?
- iv. Is there a difference in children's social interaction development before and after using the MyPraSains Module?
- v. What is the significance of the MyPraSains Module in fostering the social development of children's interactions?

## Literature Review

In early childhood education, teaching and facilitation activities need to be creatively implemented by educators to ensure that children can improve their development holistically. To flourish and attain professional satisfaction, the preschool educator needs to acquire knowledge about teaching approaches so that children can grasp basic skills before entering the mainstream (Abdullah et al., 2021). As a result, one of the most effective attempts is to include the PBL approach in preschool scientific instruction. Previous studies revealed that PBL is an effective approach for immersing children in the real world of the twenty-first century, according to numerous research studies (Tamim & Grant, 2013). In addition, a prior study by Ilangko (2014) discovered that the PBL he carried out helped children develop and enhance their capacity for creative thought. From these findings, it could be synthesised that PBL is a systematic learning strategy that allows students to enhance their abilities and receive in-depth knowledge through the execution of the project, collaboration, and 'hands-on' procedures (Du & Han, 2016). Children can also cooperate with the educator by applying what they have learned to create an outcome that addresses the investigated issue or solves the desired problem (Shukri et al., 2019). Furthermore, as demonstrated by Sumarni et al. (2022), PBL has the potential to enhance children's understanding as they work through educator-prepared projects. It can also foster cooperation, interaction, and communication

between students and educators, as well as between students and peers. Finally, PBL can help children develop compassionate and understanding friendships through the completion of projects together.

To ensure the effectiveness of science classrooms for the development of children's interaction, Donnelly (2005) mentioned several times in his study that the use of PBL-TBL encourages children to socialise collaboratively and assists children in interacting with friends and peers about the learning topic under study. This notion is supported by the findings of the study by Al-Abdullatif and Gameil (2021), who discovered that the integration of these two approaches is able to facilitate adaptable and swift conversation (useful), which results in effective interaction and cooperation between learners-peers. These situations lead to the successful completion of the project. As a result, using technology-based resources in educational settings, as well as incorporating them into practical project activities, can encourage children to explore the world by providing access to a wide range of information and broadening project tasks. Many previous research projects might corroborate the findings of individual engagement's effects on learning while using technology in PBL activities (Egilmez et al., 2018). As a result, educators have to recognise how to merge these two approaches in the science of learning. Additionally, Purnama et al. (2023) determined that the ideal practice that educators may use is blended learning.

However, in general, this approach is the closest to the traditional one because it

involves technology in the classroom. It is appropriate for use in classes with children at different levels. According to Tomar and Sharma (2022), this approach may reduce educators' costs by enabling modern learning in a more advanced setting, fostering children's involvement in their educational experience. It also offers children a tech-centred world, fostering better relationships between children through collaborative behaviour and keeping children interested and engaged. This approach scientifically proves that it can boost children's social development and provide features of 21st-century education, such as allowing children to actively participate in more open discussions among peers through exchanging ideas (Lalima & Dangwal, 2017). More profoundly, Medeiros et al. (2017) further highlighted that adopting PBL tasks through blended learning enabled learners to take on responsibility, and they discovered that collaborative tools might facilitate coaching sessions, discussions, and feedback. In order to support this statement, Mabe et al. (2022) indicate that the integration of PBL-TBL fosters an individual's 4C skills: communication, cooperation, creativity, and critical thinking. Additionally, integrating technology into the educational experience facilitates robust linkages to the real world, another essential element of PBL.

Moving on, from a worldwide standpoint, the implementation of the PBL-TBL strategy offers numerous advantages to children. A study conducted by Chistyakov et al. (2023) has demonstrated that educators who effectively implement PBL activities

by incorporating technology into STEM education are capable of enhancing the critical thinking skills of Russian children through hands-on activities conducted in school. Furthermore, Indonesian children engaged in PBL-TBL activities have demonstrated progress from multiple perspectives. The findings indicated an enhancement in creative thinking abilities in terms of flexibility, elaboration, fluency, and originality. According to Suryandari (2021), engaging in the PBL-TBL activity has a beneficial impact on enhancing creative thinking skills. Furthermore, a study conducted by Miller et al. (2021) has demonstrated that American educators have expressed favourable opinions regarding the use of PBL-TBL for teaching science. This approach allows children to learn from their educators and provides opportunities for them to learn with the community through the technology tools incorporated into the curriculum. Moreover, while considering the viewpoint of children in Brazil, the enhancement of education through PBL-TBL can amplify their drive by providing a significant and impactful learning engagement. They recognised that this method enhances their individual learning through investigation and allows them to collaborate in researching and creating projects demonstrating their knowledge (Medeiros et al., 2017).

Moreover, Yeop and Gapor (2012) have elucidated that PBL-TBL is crucial in the Malaysian education system as it benefits learners' academic performance. Specifically, there is a notable disparity

between the average test scores after implementing PBL-TBL and the average test scores before its implementation for each child. Furthermore, research has demonstrated that this strategy is effective in positively impacting learners, regardless of their gender. In addition, while examining the children's receptiveness to learning a subject at school using the PBL-TBL strategy, they have displayed a favourable response, indicating a high degree of acceptability towards this approach. Furthermore, the research conducted by Kiong et al. (2022) has demonstrated that incorporating learning modules in Malaysian schools that employ the PBL-TBL approach is highly valued by education experts. This approach is seen as significant as its components have the ability to foster children's engagement and interest in the learning process. However, exploring more captivating modules that incorporate module design elements such as Arial font and multi-colour, provide text in bullet points, adhere to A4 size, and include visual illustrations is advisable. In order to provide clearer evidence of the effectiveness of this PBL-TBL module, it is crucial for educators to allow children to engage in direct activities. According to Tee et al. (2020), the PBL-TBL approach fails to achieve its objectives when children are unable to generate a problem-solving product due to a lack of ability to express their ideas effectively. Therefore, it is imperative for educators to facilitate children's learning by offering them chances to engage in collaborative project-based activities both inside and outside the classroom. This will



enhance their motivation to master many disciplines, particularly early science topics.

### **Theoretical Framework**

In the context of the current study, the role of ECE educators is the most important role for children to wisely conduct the activities associated with PBL-TBL. The educator carries out a series of learning by organising a sequence that begins with the creation and preparation of learning and ends with the implementation and evaluation of a series of learning actions implemented in ECE centres (Safitri et al., 2018). Additionally, Cunningham et al. (2015) emphasised that it is hypothesised that to properly mediate children's development, educators need to have a broad range of content knowledge. Educators, in particular, must be aware of the traits and competencies of the 21<sup>st</sup> century, which include information, media, and technology skills, learning and innovation skills, and life and career skills, in order to successfully carry out a project intended for children (Kafka & Papageorgiou, 2025). In the current study, researchers created an effective learning module for children using the PBL Process Model, which outlines five major steps educators must take to scaffold children when adopting PBL activities at preschool (Barak, 2020). The initial step involves problem identification, followed by problem investigation, technological device planning, construction and troubleshooting of the implemented project, and ultimately concluding with project evaluation. Furthermore, prior research recommended that educators should adhere to during

the mediation process in the classroom, the theoretical work of sociocultural learning theory by Vygotsky (1978) will be thoroughly examined.

In the current study, the educator needs to clearly understand three elements related to TBL. Firstly, educators should be ready to serve as pedagogical innovators in the classroom and at the school (Alvarado & Voy, 2006) by making topics and projects more engaging. Secondly, the content provided by the tools should be appropriate for children's development (Lentz et al., 2014). Thirdly, educators should understand the role of children as "innovation" explicitly. When individuals refer to "innovation," they are not limited to the use of computers or other technology-based teaching tools. While technological improvements are a part of innovation, innovation involves much more than just technology ("Educators are innovators", n.d.). The next step in the mediation process in PBL is to construct and troubleshoot the problem after they fully understand the three components of TBL. This step is frequently applied when producing any project to identify the root cause of faulty completed projects. This step is also taken to fix rejected goods and identify the underlying causes of issues so unsuccessful goods can be repaired and used again. In terms of project implementation in kindergarten, if children cannot solve a problem for the first time, the concept of trial and error is a simple concept that can be understood about how children solve problems through the troubleshooting method. Last but not least, the final step is

to do the evaluation phase. The evaluation could be done by giving feedback. Allowing peer dialogue between educator-children and child-peers can enhance the understanding of the learning goals through feedback.

## **METHODS**

This study used a mixed-methods design involving data collection from several sources, including surveys and interviews, without necessarily integrating them into a singular analysis (Peez, 2023). This study employs the ADDIE model (Shakeel et al., 2023) as a supplementary foundation, comprising five essential phases for the development of the MyPraSains Learning Module. In each phase, researchers utilised a single research instrument without integrating it with other instruments, such as data collection through the triangulation of several datasets. Technically, during the first phase, known as the needs analysis phase, researchers conducted a series of interview protocols to gather qualitative data on educators' perspectives on the significance of designing children's PBL science learning modules in preschool settings. Furthermore, during the second phase, known as the module design phase, researchers distribute a survey to experts to solicit crucial components that should be incorporated into the learning module. In addition, as part of the third phase, known as the module development phase, experts were also provided with a questionnaire to assess the efficacy of the module in promoting the social development of children's social interactions. In addition, during the fourth

step, referred to as the implementation phase, researchers utilised both a pre-test and a post-test to evaluate the usefulness of the MyPraSains module for preschool children that consisted of a treatment and control group. In addition, as part of the fifth phase, known as the evaluation phase, a series of protocols are employed to conduct interviews with educators who have utilised MyPraSains in their learning and facilitation process. Once researchers systematically use the data collection approach based on these five steps, establishing the learning module can be actualised (Bacotang & Isa, 2016).

### **Research Participants**

For the appointment of study participants in all phases, researchers employed the purposive sampling technique, which signifies a collection of non-probability sampling procedures in which units are selected because they have qualities that researchers need in your sample (Palinkas et al., 2015). Furthermore, the second sampling technique employed in the needs analysis phase is snowball sampling (Heckathorn, 2011), which is a recruitment approach in which study participants are invited to help researchers identify new possible subjects. During this phase, researchers recruited nine educators with diverse backgrounds to participate in the study. During the design and development phase, the researcher has chosen six experts in the field of education to participate in the study. According to Abdelmohsen et al. (2020), the module can be developed with the competence of just

five experts. Nevertheless, the researchers chose to select six experts for the design phase and nine experts for the development phase to enhance the significance of the gathered data. Furthermore, during the implementation phase, the chosen study participants consisted of 25 preschool children, particularly between the ages of 5 and 6. In addition, during the evaluation phase, only one preschool educator was selected to participate in the activity implementation session as part of the evaluation module. Table 1 provides a general overview of the backgrounds of all the participants and experts selected for this study.

Table 1  
*Background of study participant in Phase 1: Needs analysis*

Participant	Position	Teaching Education	School Type/Area
1	Preschool Educator	More than 5 Years	Government/Rural
2	Preschool Educator	More than 5 Years	Government/Rural
3	Preschool Educator	More than 5 Years	Government/Rural
4	Preschool Educator	More than 10 Years	Government/Rural
5	Preschool Educator	More than 15 Years	Private/Urban
6	Preschool Educator	More than 5 Years	Government/Rural
7	Preschool Educator	More than 10 Years	Government/Urban
8	Preschool Educator	More than 5 Years	Government/Rural
9	Preschool Educator	More than 5 Years	Government/Urban

Table 2  
*Background of study participant in Phase 2: Module design*

Participant	Position	Teaching Experience	Field
1	PhD., Lecturer	More than 15 Years	Early Childhood Education
2	PhD., Lecturer	More than 5 Years	Early Childhood Education
3	PhD., Child Consultant	More than 15 Years	Curriculum Development
4	PhD., Lecturer	More than 5 Years	Child Psychology
5	Excellent Preschool Educator	More than 15 Years	Child Psychology
6	Preschool Excellent Educator	More than 5 Years	Curriculum Development

Table 3  
*Background of study participant in Phase 3: Module development*

Participant	Position	Teaching Experience	Field
1	PhD., Lecturer	More than 15 Years	Early Childhood Education
2	PhD., Child Partitioner	More than 15 Years	Child Psychology
3	PhD., Lecturer	More than 5 Years	Curriculum Development
4	PhD., Lecturer	More than 15 Years	Child Psychology
5	PhD., Lecturer	More than 10 Years	Pedagogy in Education
6	PhD., Lecturer	More than 10 Years	Early Childhood Education
7	PhD., Lecturer	More than 10 Years	Early Childhood Education
8	PhD., Lecturer	More than 10 Years	Early Childhood Education
9	PhD., Lecturer	More than 15 Years	Educational Psychology

Table 4

*Background of study participant in Phase 4: Module implementation*

Participant	Position	Experience	Preschool
1	Preschool Teacher	Teaching more than 15 years	A
2	25 preschoolers	Learning at formal school for approximately 1–2 years	A

Table 5

*Background of study participant in Phase 5: Module evaluation*

Participant	Position	Experience	Preschool
1	Preschool Teacher	Teaching more than 15 years	A

The samples from preschool educator backgrounds were selected based on a minimum of five years of preschool teaching experience and possessing at least a diploma in education (Tables 1 and 5). According to Table 4, the participants were chosen from two distinct preschools situated in Bachok District, Kelantan. Based on Tables 2 and 3, the experts were selected based on their proficiency in diverse disciplines. The rationale for selecting experts from diverse disciplines is that module development encompasses various processes; content creation is primarily the domain of early childhood education experts, module formulation is the purview of educational curriculum and pedagogical experts, and activity design is chiefly the responsibility

of educational psychological experts. Furthermore, preschool children were selected based on their experience as a preschooler for at least 1 year.

### Research Instruments

Deciding on suitable instruments for data collection is a vital stage in the research process (Bastos et al., 2014). An instrument is a device used to gather specific data to address a predetermined research question. Instrumentation refers to the act of equipping with equipment or devices that are used to gather data. In this study, researchers employed five distinct research instruments (Tables 6, 7, 8, 9, and 10) to address five specific research questions.

Table 6

*Constructs and items for research instrument in Phase 1: Needs analysis*

Instrument	Construct	No. of Item
Interview Instrument: The Perception of Preschool Educators Towards Integrating PBL-TBL in Science Activities	Challenges in teaching early science	1
	Integrating National Preschool Curriculum Standard (KSPK) 2017 with PBL Activities	1
	The Best Approach could be utilised to teach early science	1
	The importance of the PBL approach for social interaction	1

Table 7

*Constructs and items for research instrument in Phase 2: Module design*

<b>Instrument</b>	<b>Construct</b>	<b>No. of Item</b>
Questionnaire Instrument:	Activity implementation	2
Designing PBL-TBL-based Science Learning Module to improve Children's Social Interaction	Types of activity	1
	Learning objective	1
	Use of worksheet	1
	Use of technology tools	1
	Time allocation	1
	Challenge of activity	1
	Guideline in classroom	1

Table 8

*Constructs and items for research instrument in Phase 3: Module development*

<b>Instrument</b>	<b>Construct</b>	<b>No. of Item</b>
Questionnaire Instrument: Evaluation of PBL-TBL-based Science Learning Module in improving Children's Social Interaction	Technological needs	2
	Learning and facilitation objective	2
	Module contents	2
	Activities slots	2

Table 9

*Constructs and items for research instrument in Phase 4: Activity implementation*

<b>Instrument</b>	<b>Construct</b>	<b>No. of Item</b>
Pre and Post-Test Instruments for Assessment of Children's Social Interaction Development	Cooperation	5
	Self-control	5
	Assertiveness	5

Table 10

*Constructs and items for research instrument in Phase 5: Activity evaluation*

<b>Instrument</b>	<b>Construct</b>	<b>No. of Item</b>
Interview Instrument: The Perception of Preschool Educators Towards the Effectiveness of MyPraSains Module in the Learning and Facilitation Process	Social encouragement of interaction in learning	1
	Challenges while using the module	1
	Suggestions for future classes	1

## Data Collection

For quantitative data collection protocol, especially for the design and development phase, each expert was provided with a form with a specific reference number

UTM.J.53.01.00/13.11/1/4/2 Vol. 16, which was used to appoint them. Once researchers gained consent from the participants, they proceeded with the data collection process using empirical methods. In addition, for

the qualitative data collection protocol, each study participant was given a volunteering form as a participant to engage in the interview session. On the other hand, for the quantitative data collection protocol, especially for the implementation phase, researchers were permitted by the Malaysian Ministry of Education (MoE) and the State Department of Education to carry out this study. Then, this permission form was given to the school for a physical data collection session.

### Data Analysis

In order to appropriately analyse the acquired data and answer research questions (RQ) 1, researchers utilised theme analysis with the assistance of the ATLAS.ti Software. This approach helped to clarify the results drawn from the conducted interviews. In order to enable the successful creation of themes, researchers employed the inductive reasoning approach, which involves commencing the process without any predetermined beliefs or codes, allowing patterns, themes, and categories to emerge organically from the data. The researchers encoded the data to capture any notions or patterns that appeared intriguing or significant to the study inquiry (Hecker & Kalpokas, 2024). In contrast, the researchers utilised content validity index analysis (CVI) in Excel software to address RQ2 and RQ3. This analysis aimed to assess the experts' perception of the contents within the intended and developed module. To address RQ4, the researchers employed a paired-sample t-test to assess the disparity between

the pre-and post-usage of the MyPraSains Module by the children. The researchers employed IBM SPSS Statistics software to analyse the data. Finally, in response to RQ5, the researchers exclusively employed content analysis based on the available interview transcript data. Microsoft Word was utilised to emphasise the responses obtained from interviews, as the study participants consisted of only one teacher, precluding the thematic content analysis approach.

## RESULTS

### Phase 1: Need Analysis for PBL-TBL Science Learning Module

#### *Construct 1: Challenges in Teaching Early Science*

As highlighted by 21st-century education, preschool educators face numerous challenges in effectively implementing science instruction. These challenges have been shaped by educators' personal beliefs and external influences. Figure 1 illustrates seven themes that the researchers effectively studied. The key issues will be emphasised through explanations of these themes.

Seven topics have been successfully documented to understand the genuine challenges educators and preschool children face in ensuring that early science learning is implemented effectively. The first theme that was most commonly reported was that four participants (P) stated that they were not provided with or did not have adequate equipment to conduct quality science activities at preschool. The following interview findings support this:

P1: "Furthermore, I intend to instruct on the topic of balloon bursting at my location tomorrow. However, acquiring enough materials is a significant challenge for me. This is a remote location, and it is rather distant if I wish to depart from here."

P3: "In my perspective, the materials we offer are limited, and the children must collaborate with us to prepare for projects, such as botanical science."

P4: "And the other is related to the material used. The majority of individuals, uh, this is a common occurrence. The majority of my acquaintances from the preschool division heavily rely on paper-based modules for teaching. They abstain from utilising any form of substance. That is the issue I perceive. That is all."

P8: "The biggest challenge is in terms of preparing materials. If we want to perform an inquiry, we use things that are not in the classroom. We must locate it by ourselves."

Furthermore, the second successfully recorded theme was a shortage of time to conduct high-quality scientific activities. P8 and P3 have reported that they must participate in other activities, which limits their ability to focus on science activities. Furthermore, the third theme recorded was language, with P4 stating that the use of terminology in science differs from the

terms used in common language at home, which prompts children to struggle with such terms. Besides, the fourth successfully documented theme was lack of knowledge, with P1 and P7 arguing that it was about the best approach to offer PBL activities while incorporating parts of 21st-century education. The sixth theme was successfully recorded as a lack of confidence, in which P2 states that children felt afraid in attempting to solve issues in science activities, resulting in the inability to complete the activity. In addition, the sixth theme that was successfully documented was age inequality among children, and P6 stated that it is challenging to execute the same activities for all children because she must monitor the growth of each child individually. The final theme that was successfully documented was the children's lack of concentration, as P5 and P9 described how difficult it was to regulate the children and ask them to focus when doing science tasks in class.

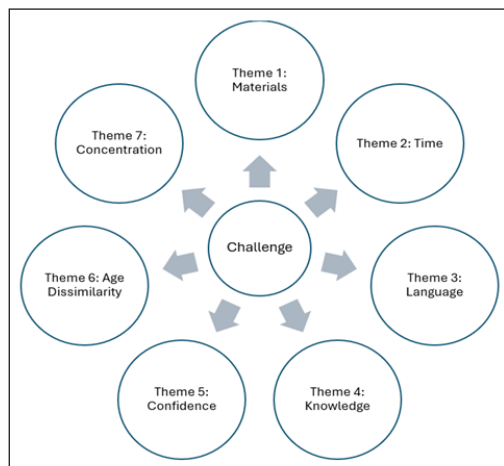


Figure 1. Challenges in teaching science in preschool

***Construct 2: Integrating National  
Preschool Curriculum Standard (KSPK)  
2017 with PBL-TBL Activities***

All study participants (P1-P9) expressed positive agreement on the ethical integration of KSPK 2017 with PBL activities. However, only two of the nine participants agreed that KSPK 2017 should be conditionally integrated with PBL activities, resulting in two distinct. According to P1, P2, P3, P5, P7, P8, and P8, they believed that introducing PBL activities in preschools using KSPK 2017 content is appropriate due to the importance of this PBL approach (see construct 4) for the development of children's social interactions as they participate in impactful classroom activities. However, P4 and P6 emphasised in the interviews that this integration should be performed conditionally for the following reasons:

P4: "That's all right, but it depends on the circumstances. It will take some time, just like me, and the preparation of the project. It's recommended that we take our time."

P6: "To be honest, I believe that it is sometimes relevant to be implemented and sometimes it is not. According to the first viewpoint, the children's level varies. Perhaps the integration of PBL with KSKP 2017 can be carried out directly in the urban environment but not in rural areas."

***Construct 3: The Best Approach Could  
be Utilised to Teach Early Science***

Before designing the module, researchers have to figure out which approach should be favoured so that educators can generate quality learning. Five themes were successfully recorded. From the 11 codes that were successfully assessed in nine independent interviews, four participants, namely P5, P7, P8, and P9, confidently claimed that the integration of science education is consistent with the PBL approach. This is because this approach has its own advantages compared to other approaches, such as the debates below:

P5: "Typically, if I want to carry out a project, I would love to use existing, real materials. For example, if I wish to undertake an experimental activity, the teaching aids utilised must be interesting. We must provide them with engaging material, and our voice must be absolutely clear."

P7: "So, the approach I chose in my project is the 3E approach, which I will encourage my learners to reveal to explore, experiment, and experience."

P8: "In our preschool, I have not been limited to following the timetable, so I will be using a project approach entirely. So, when using the full project approach in my instruction session, I guess this approach could provide an investigation. So, this time is when educator,,,, urmmm,, children do an investigation in a project approach."



P9: "Example of making a project. Project. The simplest for preschool children is to plant seeds. Right? The process is the easiest; materials are easily available, and they can see progress day by day. The peanut seeds germinated."

Furthermore, the second theme successfully analysed is the theme of the inquiry approach, where P1, P8, and P9 agreed that inquiry is a key component in ensuring early science learning can be implemented through hands-on experiences. They claimed this method will pique children's interest in completing a task. Furthermore, the third theme that was successfully investigated was the approach of learning through play, where P2 and P6 stated that allowing children to play in science learning increases their motivation to learn. The fourth and fifth themes successfully recorded were the thematic and integrated approaches. P4 explained that the fourth theme is important because children must understand a concept in accordance with appropriate themes. Meanwhile, P3 stated that the third theme is important to ensure that the implemented activities produce high-impact learning outcomes.

#### ***Construct 4: The Importance of the PBL Approach for Social Interaction***

To assess preschool educators' perceptions of previous experiences and their abilities to evaluate the value of the PBL approach in early science activities, they were asked about the strength of this approach to the social development of children's interaction.

Through their sharing, several codes were effectively recorded in four different themes. For analysing these themes, researchers only emphasised several codes from successfully recorded themes because researchers in the design phase of the learning module emphasised all these themes. For theme one, which is two-way communication, P1, P5, P7, P8, and P9 emphasised that in science activities using the PBL approach, children's engagement with educators or peers becomes more active. This can be demonstrated by P5's experience, which follows:

P5: "When I do projects with my preschool children, they love to keep talking. I mean, he or she is eager to speak up. Everyone wants to talk to educator and want to tell what they see in front of their eyes. Meaning, if we ask, they will share their opinion."

Furthermore, for the second theme, joyful in learning, P2, P3, and P9 demonstrated that implementing projects in the classroom can assist children in acquiring fun and burden-free learning. This is supported by P3's perspectives and experiences, which are as follows:

P3: "Their engagement with friends is still manageable because they are still able to participate in the activities thoroughly and have fun in the class."

In addition, for the third and fourth themes, which are the many ways interaction and increase in socialisation, only P3 and P4 commented on them. P3 believed that

theme 3 arises when learners socialise with others in their group while engaging in collaborative learning. Furthermore, P4 claimed that theme 5 is significant to children because the PBL approach itself can improve children's motivation to interact more openly with their friends. This can be proven by the dialogues below:

P5: "It means that when we introduce children to PBL activities, they can interact with friends and also they can tell what is being done. It means they will be well-socialised with friends through collaborating together."

P6: "When self-motivation increases through doing projects so that it can enhance their social interaction."

**Phase 2: PBL-based Science Learning Module Prototype Design**

For the second phase, the six experts (E) received an evaluation instrument, a prototype PBL-based science learning module called MyPraSains, and a prototype of the educator's guideline. According to the conclusions acquired by the researchers, all the experts in the field expressed very positive feedback about the design of this

module, where only Agree (A), Agree Strongly (AS), and Agree Very Strongly (AVS) scale was given for each item. This can be seen by their concordance in all constructs and items, as explicated in Table 11. As an essential remark, the process utilised to address the second research question is identical to the process employed by researchers to answer the third research question, as both utilise the same technique for implementing the research instrument and calculating agreement.

To compute the agreement among experts for each item, the researchers first divide each agreement scale into two parts, which are parts of agreement and disagreement, as suggested by Yusoff (2019) in Table 12.

The researchers will then gather agreement scales for each item in two categories: relevant or irrelevant. This relevant or non-relevant category is determined using the Item Level-Content Validity Index (I-CVI), and the Scale Level-Content Validity Index (S-CVI) is generated by calculating the amount of agreement for those individual items. In summary, the researchers acquired favourable agreement for this study, and only relevant categories were recorded, as shown in Table 13.

Table 11  
*Construct, item, and experts' agreement in Phase 2*

No.	Construct/Item	Expert Agreement					
		E1	E2	E3	E4	E5	E6
<b>Construct 1</b>							
1.	Item 1: Variety of Activities through Learn by doing.	AS	AS	AS	AVS	AS	A
	Item 2: Teaching and facilitation scheduled and formatted.	AS	A	AS	AVS	AS	A
<b>Construct 2</b>							
2.	Item 1: State the type of project clearly.	AS	AS	AS	AVS	AS	A

Table 11 (continue)

No.	Construct/Item	Expert Agreement					
		E1	E2	E3	E4	E5	E6
	<b>Construct 3</b>						
3.	Item 1: Appropriateness of earning objective.	AS	A	AS	AS	AS	A
	<b>Construct 3</b>						
4.	Item 1: Appropriate Worksheet.	AS	A	AS	AVS	AS	A
	<b>Construct 5</b>						
5.	Item 1: Technology accessible to use the module in the classroom.	AS	A	AS	AS	AS	A
	<b>Construct 6</b>						
6.	Item 1: Appropriate time to implement the activity within 40 minutes.	AS	A	AS	AS	A	A
	<b>Construct 7</b>						
7.	Item 1: Appropriate challenge with child development.	AS	AS	AS	AVS	AS	A
	<b>Construct 8</b>						
8.	Item 1: Provide guidelines to implement the activity.	AS	AS	AS	AVS	AS	A

Table 12

Agreement, instruction, and category

Instruction		
Agreement	Scale	Category
Disagree Very Strongly (DVS)	1	0
Disagree Strongly (DS)	2	0
Disagree (D)	3	0
Agree (A)	4	1
Agree Strongly (AS)	5	1
Agree Very Strongly (AVS)	6	1

Table 13

I-CVI and S-CVI for findings in Phase 2

Item	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	I-CVI	Category	S-CVI
1	5	5	5	6	5	4	1	Relevant	1
2	5	4	5	6	5	4	1	Relevant	1
3	5	5	5	6	5	4	1	Relevant	1
4	5	4	5	5	5	4	1	Relevant	1
5	5	4	5	6	5	4	1	Relevant	1
6	5	4	5	5	5	4	1	Relevant	1
7	5	4	5	5	4	4	1	Relevant	1
8	5	5	5	6	5	4	1	Relevant	1
9	5	5	5	6	5	4	1	Relevant	1

Table 14  
 Modified Kappa coefficient (*K*) obtained based on content validity indexing in Phase 2

<b>Sum of I-CVI</b>	<b>9</b>	<b>Sum of S-CVI</b>	<b>9</b>
Sum of I-CVI/Ave: (Total I-CVI/Total of Item)	1	Sum of I-CVI: (Total I-CVI/Total of Item)	1
Category	Accepted		Accepted

To calculate the total of the I-CVI index and the total of S-CVI, the researchers utilised the formula suggested by Polit et al. (2007), which is demonstrated in Table 14. The final results suggest that the experts' overall coefficient value for S-CVI is positively achieving  $k = 1$ . It signifies that each expert obtained all items positively and reached an accurate consensus.

Subsequently, based on the feedback provided by each expert concerning the prototype design of this educational module, a consensus is reached that prioritises and condones a methodology more suited to preschool settings.

**Phase 3: MyPraSains Module Development**

In the third phase, the six experts (E) were provided with an evaluation instrument, a constructed science learning module

called MyPraSains based on PBL, and a comprehensive guideline for educators. Based on the input obtained by the researchers, all the experts in the field indicated highly positive feedback regarding the efficacy of this module. The experts were only provided with a scale consisting of Agree (A), Agree Strongly (AS), and Agree Very Strongly (AVS) options for each topic. This can be seen by their concordance in all constructs and items, as explicated in Table 15. As an essential remark, the process utilised to address the second research question is identical to the process employed by researchers to answer the third research question, as both utilise the same technique for implementing the research instrument and calculating agreement. Following that, the researchers gathered agreement scales for each item in two categories: relevant or irrelevant, as explained in Table 16.

Table 15  
 Construct, item, and experts' agreement in Phase 3

No.	Construct/Item	Expert Agreement								
		E1	E2	E3	E4	E5	E6	E7	E8	E9
<b>Construct 1</b>										
1.	Item 1: Laptops and LCDs in the classroom.	AS	A	AS	AS	A	A	AS	AVS	AS
2.	Item 2: Internet facility.	AS	A	AS	AS	AVS	AVS	AS	AVS	AS
<b>Construct 2</b>										
3.	Item 1: Objectives focus on the 2017 National Preschool Standard Curriculum (NPSC 2017).	AS	AS	AS	AS	AVS	AVS	AS	AVS	AS

Table 15 (continue)

No.	Construct/Item	Expert Agreement								
		E1	E2	E3	E4	E5	E6	E7	E8	E9
4.	Item 2: Objectives that can be assessed based on the level of the child.	AS	AS	AS	AS	AVS	AS	AS	AS	AS
	<b>Construct 3</b>									
5.	Item 1: The content is suitable according to the level of knowledge of children.	A	AS	AS	AS	AVS	AVS	AVS	AS	AS
6.	Item 2: Content relevant to children's development.	A	AS	AS	AS	AVS	AS	AVS	AS	AS
	<b>Construct 4</b>									
7.	Item 1: Interactive activities help children communicate with each other.	AVS	AS	AS	AS	AVS	AVS	AS	AS	AS
8.	Item 2: Activities can help group problem-solving.	AS	AS	AS	AS	AVS	AVS	AS	AS	AS

Table 16

*I-CVI and S-CVI for findings in Phase 3*

Item	E1	E2	E3	E4	E5	E6	E7	E8	E9	I-CVI	Category	S-CVI
1	5	4	5	5	4	4	5	6	5	1	Relevant	1
2	5	4	5	5	6	6	5	6	5	1	Relevant	1
3	5	5	5	5	6	6	5	6	5	1	Relevant	1
4	5	5	5	5	6	5	5	5	5	1	Relevant	1
5	4	5	5	5	6	6	6	5	5	1	Relevant	1
6	4	5	5	5	6	5	6	5	5	1	Relevant	1
7	6	5	5	5	6	6	5	5	5	1	Relevant	1
8	5	5	5	5	6	6	5	5	5	1	Relevant	1

To determine the combined value of the I-CVI index and the total value of the S-CVI, the researchers employed the formula shown in Table 14. The end result in Table 17 indicates that the experts'

overall coefficient value for S-CVI has successfully reached a value of  $k = 1$ . This proves that every expert received each thing positively and achieved a precise consensus.

Table 17

*Modified Kappa coefficient (K) obtained based on content validity indexing in Phase 3*

<b>Sum of I-CVI</b>	<b>8</b>	<b>Sum of S-CVI</b>	<b>8</b>
Sum of I-CVI/Ave: (Total I-CVI/Total of Item)	1	Sum of I-CVI: (Total I-CVI/Total of Item)	1
Category	Accepted		Accepted

After receiving feedback from each expert regarding the usefulness of the generated module, a consensus is achieved that prioritises and approves a methodology better suited for preschool settings. Nevertheless, E3, an expert in the field, proposed that to guarantee this module's long-term efficacy, teachers must consistently oversee and assess the progress of the children's growth during the activities.

**Phase 4: Activity Implementation during 8-Week Intervention**

To address this research inquiry, the researchers initially computed the pre- and post-test results for every study participant. The educator assessed the pre-test scores prior to the commencement of the activity and provided the post-test score once the activity was over.

Additionally, researchers have discovered that utilising the MyPraSains Module helps enhance children's social development by examining the disparity between pre and post-test scores as mentioned in Table 18. The information can be accessed by referring to the Table 19 provided.

A value of 0.001 signifies that the likelihood of achieving the observed result by random chance is lower than 0.1%. Put simply, there

Table 18  
*Pre and post test score*

Participant	Pre-Test Score	Post-Test Score
1	36.00	64.00
2	45.00	70.00
3	36.00	70.00
4	30.00	60.00
5	45.00	55.00
6	43.00	55.00
7	36.00	65.00
8	45.00	65.00
9	43.00	60.00
10	39.00	60.00
11	36.00	65.00
12	45.00	70.00
13	36.00	65.00
14	30.00	60.00
15	45.00	60.00
16	43.00	60.00
17	36.00	60.00
18	36.00	65.00
19	45.00	70.00
20	36.00	70.00
21	30.00	70.00
22	45.00	70.00
23	43.00	60.00
24	36.00	65.00
25	33.00	70.00

Table 19  
*Paired samples test*

Paired Samples Test				Paired Difference		Significance			
Comparison score (post and pre-tests)	Mean	Std. Dv	Std. Error Mean	95% Confidence Interval of the Difference		t	df	One-Sided p	Two-Sided p
				Lower	Upper				
	-25.24	7.63	1.53	-28.39	-22.10	-16.55	24	<.001	<.001

is compelling evidence indicating that the outcomes are not a consequence of random chance and are statistically significant. Utilising the MyPraSains Module has a very beneficial impact on the social development of children's interactions. The children demonstrated a proactive communication approach during the activity.

### **Phase 5: Activity Evaluation based on Development of Children's Social Interaction**

Based on data collected directly from PE1, she has thoroughly explained the MyPraSains Module's effectiveness in preschool child development. She observed that the activities in this module not only helped children address the tasks presented in the activity, but she highlighted that those children also stimulated communication while doing so. The following transcript supports this:

PE1: "I was taken aback the first time I engaged in this activity with children." Typically, students exhibit limited enthusiasm during scientific tasks, but on this occasion, they appeared notably enthusiastic in their efforts to finish the assigned assignment. Um, um... Not only did they successfully finish the task of constructing buildings in their various groups, but I also saw that they had sufficient time to discuss and exchange ideas with their peers regarding their creations. In my perspective, this is positive feedback."

In addition, in terms of the challenges faced by her in using this module, she explained that there were difficulties with the allotted time. Researchers only allocated 40 minutes of time for each activity, but she explained that 1 hour was the most appropriate time because the children showed happy feelings throughout the activity. This can be proven through the transcription below:

PE1: "Urrmmm, How can I say is,,,, urmm, from my observation, children in my class display a high level of enthusiasm and engagement during the activities. Despite the time constraints imposed by the module, the children displayed a remarkable level of excitement and delight throughout the activities. As a result, I had to allocate additional time for them to finish each sub-activity during the process of constructing the building. In my opinion, a duration of 40 minutes is acceptable, but if the allocated time is extended to 1 hour, it would greatly facilitate the learning process and eliminate any sense of haste."

Furthermore, when discussing the educator's perspectives and suggestions regarding the implementation of this module in Malaysian preschools, she expressed her confidence that this module has the capacity to effectively enhance social development and interactions within the school environment. Furthermore, she clarified that it is imperative to promote this module

in all preschools, regardless of whether they are government or private institutions. This is because the interactive activities offered within the module can foster collaborative thinking among children. As evidence, it can be referred to the transcription below:

PE1 "In my personal opinion,,, you know what,,, urmm,,, I have a strong affinity for this module." Not only does it foster collaborative interaction and engagement among children, but it also stimulates their ability to think creatively and unconventionally. I strongly advocate for the use of this module by all preschool instructors in Malaysia in order to enhance the quality of science instruction at the preschool level on a daily basis."

## DISCUSSION

Through the views of the educators in this present study, the PBL module is essential in preschool education today since it can enhance children's social development through their engagement in early science activities inside or outside the classroom. This is supported by the findings of N. N. Mohamed and Jaafar's (2020) study. They stated that providing a PBL learning module to educators in science education in preschool allows children to socialise and communicate with educators and friends. This includes those activities more openly and transparently because the topics introduced are based on 21st-century learning elements. On the other hand, Ompok et al. (2020) argued that introducing

a science learning module through the PBL approach in preschool increases children's curiosity about new concepts. It also increases children's confidence in questioning and answering critical problems initiated by the educator. Furthermore, Aziz and Bakar (2021) discovered that the PBL science module is appropriate for promotion in early childhood because collaborative classroom learning can help children develop their creativity. Otherwise, Hsin and Wu (2023) discovered that the educator's function as a facilitator and role model in the classroom encourages children's experimentation since the educator becomes a resource for children to socialise in meaningful activities.

Next, keeping in consideration the success of PBL features in early childhood education, experts have expressed their belief that a learning module based on PBL-TBL will assist children in improving their social development through group activities. However, Elviana et al. (2022) noted that the educator's knowledge of applying these two ways is critical to ensuring that the children understand the content to be presented. Cooperative work in PBL has the potential to enhance children's communication and teamwork skills, leading to considerable improvements in their overall development (Parrado-Martínez & Sánchez-Andújar, 2020). Upon further synthesis, these two approaches greatly facilitate social interactions that hold immense importance for children. Considering the PBL approach first is helpful, as Aulia et al. (2024) explained that PBL can allow children to



learn cooperatively with peers. Meanwhile, Kim and Kim (2021) discovered that when children start doing projects in groups, their social interaction becomes passive. Hence, the findings imply that the responsibilities of individuals within a group should be modified to accommodate the specific attributes of problem-based learning (PBL) and the nature of the work. Furthermore, when considering the significance of incorporating technology into education, independent of the specific technologies employed in the classroom, it can provide support for students' comprehension and learning during science-based activities that include inquiry (Devolder et al., 2012). Therefore, to succeed in science education classes, educators must adopt a more systematic approach by incorporating technology tools, such as proper models and guidelines (Zahner, 1998).

In general, introducing attractive and interactive learning modules into the education system attracts children to learn (Sirisuthi & Chantarasombat, 2021). In addition to improving children's communication and interaction skills, using learning modules incorporating PBL and TBL in the classroom will assist children in grasping the concepts taught to them (Artiniasih et al., 2019). Furthermore, Oksa and Soenarto (2020) noted that educators' efforts to implement learning utilising electronic media in conjunction with the execution of science activities at school could stimulate children to take out activities with greater confidence. Next, to explain why PBL-TBL in blended learning

is important, the results of this study also confirmed the findings of the current study, in which one of the experts indicated that the existence of this MyPraSains Module can assist children in developing an interest in science subjects. More profoundly, Yustina et al. (2020) argued that incorporating PBL into a blended learning environment has a significant impact on creating a more active and interactive classroom. As a result, integrating blended learning demonstrates that it has the ability to improve both children's social development and the overall quality of the learning environment (Graham et al., 2023). According to a study conducted by AlAli and Wardat (2024), the promotion of technology within the context of science education in schools has been found to be one of the most effective factors in enhancing children's PISA performance. According to previous reports, experts have reached a consensus that engaging in technology-related activities can enhance children's motivation to learn science. Their interest in science will be indirectly correlated with their future PISA performance, resulting in improved scores.

Last but not least, when considering improvements to enhance the quality of science education using the PBL-TBL approach, participants in phase 5: Evaluation Module have recommended that the optimal duration for conducting science activities through the MyPraSains module should be 60 minutes. The educator elaborated that allocating 60 minutes as a period of tranquillity allows youngsters to engage in things more creatively without the pressure

of completing them within a restricted timeframe. Curran and Kitchin (2019) provided evidence that allocating sufficient time for science activities can benefit children's development. The allocation of sufficient learning time is crucial, surpassing the significance of the number of topics to be taught to children. This is because children require a profound comprehension of a subject matter rather than merely gaining a multitude of new knowledge within a limited timeframe.

## CONCLUSION

Experts have reached a consensus that educators would greatly benefit from developing a comprehensive science PBL-TBL learning module. This will help educators overcome the challenges they face when attempting to create high-quality early science activities for preschoolers. In addition, children learn to work together in a PBL-TBL environment to solve problems that relate to multiple scientific concepts. This improves their motivation to participate in science activities and encourages them to use their creative and critical thinking skills to solve problems arising from these activities. The existence of this learning module in science education would improve educators' abilities to create a more competent learning environment, resulting in a better generation for the future. However, priority should be made to providing support from the MoE in enhancing the preschool curriculum to improve the quality of education. Furthermore, from an educational perspective, it is imperative for teachers

to consistently take proactive measures to implement problem-based learning and task-based learning activities to enhance their teaching abilities progressively. Nevertheless, it is imperative to conduct longitudinal studies to observe the progress and growth of children's accomplishments over time, using educational modules that are implemented in the official schooling system.

## Limitation and Recommendation

Several limitations have emerged as the primary obstacle to guaranteeing appropriate data collection. One initial limitation is the reliance on voluntary participation of individuals in the study. Initially, researchers sought preschool educators from a range of government and private organisations from rural and urban areas to participate in this study. Nevertheless, most research participants in phase 1, the Needs Analysis, are teachers not from the urban area. Nevertheless, three out of nine educators originate from urban regions. This is due to the use of the snowball sampling technique, whereby most research participants recommended by existing participants are teachers employed in either rural or suburban areas (in proximity to the town within a district). Despite the imbalance between urban and rural educators, researchers have devised identical interview questions requiring them to elucidate their answers based on their experiences in teaching science and discuss the obstacles they encounter in science education. The study's findings indicate that

both groups of educators concurred on the high utility and significance of employing the TBL-PBL module for teaching science to preschool children in both rural and urban areas. The second limitation is related to the selection of field experts. Initially, researchers conducted a survey among multiple experts in the field of education to ensure their participation in developing and producing high-quality learning modules. However, the survey data indicates that only experts in early childhood education, educational pedagogy, curriculum development, and educational psychology are interested in participating in this undertaking. While they possess diverse areas of competence, some also possess additional particular expertise, such as actively creating educational modules for preschool children and authoring books on instructional technology in education. It is recommended that future studies involve the selection of experts in different fields, such as educational technology, to assess their reaction to the technology-based learning module that has been established.

The findings that have been obtained show two recommendations that researchers can highlight. The first thought is that current research is seen to be able to bridge the gap between past studies empirically. As proof, the result from the experts' consensus focused that the development of this PBL-TBL science learning module could provide more opportunities for children to improve their social interaction through cooperative activities. It also helps them solve the problems associated with classroom

activities through the empowerment of creative thinking. The reason behind this is that, according to Ucar (2015), incorporating technology into the classroom allows for the simulation of real-world problems, which in turn promotes more authentic learning in science classrooms. In addition, this present study also recommends that future studies focus more on observations of how preschool children adapt to learning hands-on science activities in blended learning settings. The reason why this situation should be seriously emphasised is that it was proven that using a practical approach while teaching science could help educator strengthen their knowledge related to practising good teaching approaches over time. At the same time, it is also able to create a benchmark for the MoE to promote the integration of early science education in a more open and transparent manner. Hence, the MoE should fully back efforts to enhance preschool teachers' technological competence since many educators attribute the blended learning model's success to the resources they have at their disposal (Bruggeman et al., 2021).

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## REFERENCES

Abdelmohsen, M. M. (2020). The development and validation of a module on enhancing students'

- critical thinking, collaboration and writing skills. *SAR Journal*, 3(4), 166-177. <https://doi.org/10.18421/SAR34-04>
- Abdul Rasid, N. (2022). *Views, practices and challenges of preschool educators on the application of higher-level thinking skills through play activities in the early science component* [Unpublished doctoral dissertation]. Universiti Sains Malaysia.
- Abdullah, M. M., Nor, M. M., & Hutagalong, F. D. (2021). Play teaching approach in the classroom among preschool educators. *Journal of Educational Research*, 39, 64-74.
- Al-Abdullatif, A. M., & Gameil, A. A. (2021). The effect of digital technology integration on students' academic performance through project-based learning in an e-learning environment. *International Journal of Emerging Technologies in Learning*, 16(11), 189-210. <https://doi.org/10.3991/ijet.v16i11.19421>
- AlAli, R., & Wardat, Y. (2024). Low PISA performance students: Factors, perceptions, and improvement strategies. *International Journal of Religion*, 5(9), 334-348. <https://doi.org/10.61707/nve8gj33>
- Alvarado, F., & Voy, D. L. (2006). *Educators: Powerful innovators*. Academy for Educational Development Global Education Center.
- Artiniasih, N. K. S., Agung, A. A. G., & Sudatha, G. W. (2019). Project-based module electronic development Science subject class viii for first secondary school. *Jurnal EDUTECH Universitas Pendidikan Ganessa*, 7(1), 54-65.
- Aulia, M. P., Sudarti, & Zar'in, F. (2024). Implementation of project based learning method in developing cognitive abilities of children aged 5-6 years through loose parts media. *Journal of Education and Teaching Learning*, 6(1), 106-118. <https://doi.org/10.51178/jetl.v6i1.1793>
- Aziz, C. N. F. C. A., & Bakar, K. A. (2021). Fostering children's creativity through preschool STEM Creativity Module. *International Journal of Academic Research in Progressive Education and Development*, 10(3), 176-189. <https://doi.org/10.6007/IJARPED/v10-i3/10403>
- Bacotang, J., & Isa, Z. M. (2016). The development of early literacy module for children's nurseries. *Jurnal Pendidikan Awal Kanak-Kanak Kebangsaan*, 5, 30-48.
- Barak, M. (2020). Problem-, project- and design-based learning: Their relationship to teaching science, technology and engineering in school. *Journal of Problem-Based Learning*, 7(2), 94-97. <https://doi.org/10.24313/jpbl.2020.00227>
- Barenthien, J. M., & Dunekacke, S. (2022). The implementation of early science education in preschool educators' initial educator education. A survey of educator educators about their aims, practices and challenges in teaching science. *Journal of Early Childhood Educator Education*, 43(4), 600-618. <https://doi.org/10.1080/10901027.2021.1962443>
- Bastos, J. L., Duquia, R. P., González-Chica, D. A., Mesa, J. M., & Bonamigo, R. R. (2014). Field work I: selecting the instrument for data collection. *Anais brasileiros de dermatologia*, 89(6), 918-923. <https://doi.org/10.1590/abd1806-4841.20143884>
- Bruggeman, B., Tondeur, J., Struyven, K., Pynoo, B., Garone, A., & Vanslambrouck, S. (2021). Experts speaking: Crucial teacher attributes for implementing blended learning in higher education. *The Internet and Higher Education*, 48, Article 100772. <https://doi.org/10.1016/j.iheduc.2020.100772>
- Chistyakov, A. A., Zhdanov, S. P., Avdeeva, E. L., Dyadichenko, E. A., Kunitsyna, M. L., & Yagudina, R. I. (2023). Exploring the characteristics and effectiveness of project-based learning for science and STEAM education. *Eurasia Journal of Mathematics, Science and Technology Education*, 19(5), Article 2256. <https://doi.org/10.29333/ejmste/13128>

- Cunningham, A. E., & Ryan O'Donnell, C. (2015). Teacher knowledge in early literacy. In A. Pollatsek & R. Treiman (Eds.), *The Oxford Handbook of Reading* (pp. 447-462). Oxford University Press.
- Curran, F. C., & Kitchin, J. (2019). Early elementary science instruction: Does more time on science or science topics/skills predict science achievement in the early grades? *AERA Open*, 5(3). <https://doi.org/10.1177/2332858419861081>
- Daud, K. M. (2019). Challenges of preschool educators in applying STEM Education. *Jurnal Pendidikan Sains & Matematik Malaysia*, 9(2), 25-34. <https://doi.org/10.37134/jpsmm.vol9.2.4.2019>
- Demir, K., & Akpınar, E. (2018). The effect of mobile learning applications on students' academic achievement and attitudes toward mobile learning. *Malaysian Online Journal of Educational Technology*, 6(2), 48-59. <https://doi.org/10.17220/mojet.2018.04.004>
- Devolder, A., van Braak, J., & Tondeur, J. (2012). Supporting self-regulated learning in computer-based learning environments: Systematic review of effects of scaffolding in the domain of science education. *Journal of Computer Assisted Learning*, 28(6), 557-573. <https://doi.org/10.1111/j.1365-2729.2011.00476.x>
- Donnelly, R. (2005). *Using technology to support project and problem-based learning using technology to support project and prob.* Technological University Dublin.
- Du, X., & Han, J. (2016). A literature review on the definition and process of project-based learning and other relative studies. *Creative Education*, 7, 1079-1083. <https://doi.org/10.4236/ce.2016.77112>
- Educators are innovators: Educators and school leaders transforming education.* (n.d.). Childhood Education International. Retrieved on October 18th, 2023, from <https://ceinternational1892.org/educators-are-innovators/>
- Egilmez, G., Sormaz, D., & Gedik, R. (2018, June 24-27). A project-based learning approach in teaching simulation to undergraduate and graduate students. *2018 ASEE Annual Conference & Exposition*. American Society for Engineering Education. <https://doi.org/10.18260/1-2--29716>
- Elviana, V. R., Sintawati, M., Bhattacharyya, E., Habil, H., & Fatmawati, L. (2022). The effect of project-based learning on technological pedagogical content knowledge among elementary school pre-service educator. *Pegem Journal of Education and Instruction*, 12(2), 151-156.
- Garzón, A., & Díaz-Moreno, N. (2019). The teaching of science in the childhood stage: Difficulties, challenges, and new methodological proposals. In *ICERI2019 Proceedings* (pp. 8339-8344). IATED. <https://doi.org/10.21125/iceri.2019.1981>
- Ghazali, A., Ashari, Z. M., Hardman, J., Omar, R., & Handayani, S. W. (2023). Best practices in STEM education for preschool children: A case study in Malaysia. *Sains Humanika*, 16(1), 87-99. <https://doi.org/10.11113/sh.v16n1.2102>
- Ghazali, A., Ashari, Z., M., Hardman, J., & Yazid, A. A. (2024). Development and effectiveness of the E-Sky Module based on PBL in the teaching and facilitation process of early science. *Journal of Baltic Science Education*, 23(2), 221-239. <https://doi.org/10.33225/jbse/24.23.221>
- Ghazali, M. N. A., & Yusof, M. (2022). Achieving quality learning through STEM education towards kindergarten educators' perceptions. *Jurnal Pendidikan Awal Kanak-Kanak Kebangsaan*, 11(1), 108-119. <https://doi.org/10.37134/jpak.vol11.1.10.2022>
- Graham, C. R., & Halverson, L. R. (2023). Blended learning research and practice. In O. Zawacki-Richter & I. Jung (Eds.), *Handbook of Open*,

- Distance and Digital Education* (pp. 1159-1178). Springer. [https://doi.org/10.1007/978-981-19-2080-6\\_68](https://doi.org/10.1007/978-981-19-2080-6_68)
- Han, C. G. K., Amatan, M. A., & Lai, E. (2022). Experiment implementation with interest in science learning in under-enrolled schools of Kota Belud District, Sabah. *Malaysian Journal of Social Sciences and Humanities*, 7(8), Article 001668. <https://doi.org/10.47405/mjssh.v7i8.1668>
- Heckathorn, D. D. (2011). Snowball versus respondent-driven sampling. *Sociological Methodology*, 41(1), 355-366. <https://doi.org/10.1111/j.1467-9531.2011.01244.x>
- Hecker, J., & Kalpokas, N. (2024). Handling qualitative data: The ultimate guide to qualitative research - Part 2. *Atlas.ti*. <https://atlasti.com/guides/qualitative-research-guide-part-2/qualitative-data-analysis>
- Hsin, C. T., & Wu, H. K. (2023). Implementing a project-based learning module in urban and indigenous areas to promote young children's scientific practices. *Research in Science Education*, 53, 37-57. <https://doi.org/10.1007/s11165-022-10043-z>
- Ilangko, S. (2014). *The effect of the approach of integrating creative thinking skills in teaching descriptive essays and imaginative essays among students form five* [Unpublished doctoral dissertation]. Universiti Sains Malaysia.
- Ilomäki, L., & Lakkala, M. (2018). Digital technology and practices for school improvement: Innovative digital school model. *Research and Practice in Technology Enhanced Learning*, 13, Article 25. <https://doi.org/10.1186/s41039-018-0094-8>
- Kafka, D., & Papageorgiou, T. (2025). The pedagogy of skills in the 21st century: Practices for integrating them into the teaching process. *Creative Education*, 16(1), 56-70. <https://doi.org/10.4236/ce.2025.161004>
- Kim, H. W., & Kim, M. K. (2021). A case study of children's interaction types and learning motivation in small group Project-based Learning activities in a mathematics classroom. *Eurasia Journal of Mathematics, Science and Technology Education*, 17(12), Article 2051. <https://doi.org/10.29333/ejmste/11415>
- Kiong, T. T., Mohd Rusly, N. S., Abd Hamid, R. I., Singh, C. K. S., & Hanapi, Z. (2022). Inventive problem-solving in project-based learning on design and technology: A needs analysis for module development. *Asian Journal of University Education*, 18(1), 271-278.
- Lalima, & Dangwal, K. L. (2017). Blended learning: An innovative approach. *Universal Journal of Educational Research*, 5(1), 129-136. <https://doi.org/10.13189/ujer.2017.050116>
- Lentz, C. L., Seo, K. K., & Gruner, B. (2014). Revisiting the early use of technology: A critical shift from "how young is too young?" To "how much is 'just right'?" *Dimensions of Early Childhood*, 42, 15-23.
- Leung, W. M. V. (2023). STEM education in early years: Challenges and opportunities in changing educators' pedagogical strategies. *Education Sciences*, 13(5), Article 490. <https://doi.org/10.3390/educsci13050490>
- Luen, L. C. (2017). Puppets as pedagogical tools in social development and emotion of preschool children. *Jurnal Pendidikan Awal Kanak-Kanak Kebangsaan*, 6(1), 45-56. <https://doi.org/10.37134/jpak.vol6.1.4.2017>
- Mabe, A., Brown, K., Frick, E. J., & Padovan, F. (2022). Using technology to enhance project-based learning in high school: A phenomenological study. *Education Leadership Review of Doctoral Research*, 10, 1-14.
- Markula, A., & Aksela, M. (2022). The key characteristics of project-based learning: How educators implement projects in K-12 science education. *Disciplinary and Interdisciplinary*

- Science Education Research*, 4, Article 2. <https://doi.org/10.1186/s43031-021-00042-x>
- Mayar, F. (2013). Social development of early children as seeds for the nation's future. *Al-Ta'lim Journal*, 20(3), 459-464. <https://doi.org/10.15548/jt.v20i3.43>
- Medeiros, F. P., Júnior, P., Bender, M., Menegussi, L., & Curche, M. (2017). Blended learning experience applying project-based learning in an interdisciplinary classroom. In *ICERI2017 Proceedings: 10th annual International Conference of Education, Research and Innovation* (pp. 8665-8672). IATED. <https://doi.org/10.21125/iceri.2017.2364>
- Miller, E. C., Reigh, E., Berland, L., & Krajcik, J. (2021). Supporting equity in virtual science instruction through project-based learning: opportunities and challenges in the era of COVID-19. *Journal of Science Teacher Education*, 32(6), 642-663. <https://doi.org/10.1080/1046560X.2021.1873549>
- Mohamed, A. H. (2018). Gender as a moderator of the association between educator-child relationship and social skills in preschool. *Early Child Development and Care*, 188, 1711-1725. <https://doi.org/10.1080/03004430.2016.1278371>
- Mohamed, N. N., & Jaafar, A. N. M. (2020). Use of project-based learning inquiry learning module for 4 years old children. *Jurnal Pendidikan Awal Kanak-Kanak Kebangsaan*, 9, 73-90. <https://doi.org/10.37134/jpak.vol9.sp.8.2020>
- Oksa, S., & Soenarto, S. (2020). Project-based e-module development to motivate vocational school students' learning. *Jurnal Kependidikan: Penelitian Inovasi Pembelajaran*, 4(1), 99-111. <https://doi.org/10.21831/jk.v4i1.27280>
- Ompok, C., Sapirai, J., Emison, E., Teo, L., & Payne, P. K. (2020). Developing an animal STEM module using a project approach for preschool children. *International Academic Research Journal of Social Science*, 6(2), 6-16.
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health*, 42(5), 533-544. <https://doi.org/10.1007/s10488-013-0528-y>
- Parrado-Martínez, P., & Sánchez-Andújar, S. (2020). Development of competences in postgraduate studies of finance: A project-based Learning (PBL) case study. *International Review of Economics Education*, 35, Article 100192. <https://doi.org/10.1016/j.iree.2020.100192>
- Peez, A. (2023). Is multi-method research more convincing than single-method research? An analysis of international relations journal articles, 1980-2018. *Security Studies*, 33(1), 55-87. <https://doi.org/10.1080/09636412.2023.2262388>
- Polit, D. F., Beck, C. T., & Owen, S. V. (2007). Is the CVI an acceptable indicator of content validity? Appraisal and recommendations. *Research in Nursing & Health*, 30(4), 459-467. <https://doi.org/10.1002/nur.20199>
- Purnama, H. I., Wilujeng, I., & Abdul Jabar, C. S. (2023). Blended learning in elementary school science learning: A systematic literature review. *International Journal of Evaluation and Research in Education*, 12(3), 1408-1418. <https://doi.org/10.11591/ijere.v12i3.25052>
- Ramaila, S., & Molwele, A. J. (2022). The role of technology integration in the development of 21st century skills and competencies in life sciences teaching and learning. *International Journal of Higher Education*, 11(5), 91-17. <https://doi.org/10.5430/ijhe.v11n5p9>
- Ramli, A. A., Ibrahim, N. H., Surif, J., Bunyamin, M. A. M., Jamaluddin, R., & Abdullah, N. (2017). Educators' readiness in teaching stem education. *Man in India*, 97(13), 343-350.
- Rossano F., Terwilliger, J., Bangerter A., Genty E., Heesen, R., & Zuberbühler, K. (2022).

- How 2- and 4-year-old children coordinate social interactions with peers. *Philosophical Transactions of the Royal Society B*, 377, Article 20210100. <http://doi.org/10.1098/rstb.2021.0100>
- Safitri, M., Wahyuni, S., & Putra, Z. A. (2018). Implementation of the development of moral religious values in early childhood through modeling methods. *Early Childhood Research Journal*, 6(3), 325-340.
- Shakeel, S. I., Al Mamun, M., & Haolader, M. (2023). Instructional design with ADDIE and rapid prototyping for blended learning: Validation and its acceptance in the context of TVET Bangladesh. *Education and Information Technologies*, 28, 7601-7630. <https://doi.org/10.1007/s10639-022-11471-0>
- Shukri, A. A. M., Che Ahmad, C. N., & Daud, N. (2019). The implementation of a stem literacy module to empower the creative thinking of first grade students. *International Journal of Education, Psychology and Counseling*, 4(32), 219-237. <https://doi.org/10.35631/IJEPC.4320021>
- Sirisuthi, C., & Chantarasombat, C. (2021). Development on the learning module of school-based supervision course for master's degree students, majoring educational administration in Thailand. *International Journal of Higher Education*, 10(4), 21-31. <https://doi.org/10.5430/ijhe.v10n4p21>
- Sjöman, M., Granlund, M., Axelsson, A. K., Almqvist, L., & Danielsson, H. (2021). Social interaction and gender as factors affecting the trajectories of children's engagement and hyperactive behaviour in preschool. *The British Journal of Educational Psychology*, 91(2), 617-637. <https://doi.org/10.1111/bjep.12383>
- Sumarni, S., Putri, R. I. I., & Andika, W. D. (2022). Project based learning (PBL) based lesson study for learning community (LSLC) in kindergarten. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 6(2), 989-996. <https://doi.org/10.31004/obsesi.v6i2.1637>
- Suryandari, K. C. (2021). The effect of scientific reading-based project model in empowering creative thinking skills of preservice teacher in elementary school. *European Journal of Educational Research*, 10(3), 1329-1340. <https://doi.org/10.12973/eujer.10.3.1329>
- Tamim, S. R., & Grant, M. M. (2013). Definitions and uses: Case study of educators implementing project-based learning. *Interdisciplinary Journal of Problem-Based Learning*, 7(2), 72-101. <https://doi.org/10.7771/1541-5015.1323>
- Tee T. K., Mohd.Rusly N. S., Sulaiman, N. L., Hanapi, Z., & Sukardi. (2020, November 7). Implementation of project work in design and technology subject for secondary school (Paper ICETVE\_047). In *International Conference on Engineering, Technology & Vocational Education* (p. 35). ANP Resources. [https://ajvahonline.com/proceeding\\_book/Buku%20Proceeding\\_ICETVE2020.pdf](https://ajvahonline.com/proceeding_book/Buku%20Proceeding_ICETVE2020.pdf)
- Tomar, K., & Sharma, P. (2022). Blended learning approach for early childhood education. *International Journal of Creative Research Thought*, 10(5), 113-121.
- Tripathi, P., Maheswari, K., Malathi, R., Sharma, M., Kaur, N., & Otero-Potosim S. (2023). Challenges, impacts and the importance of digital technologies on modern education in 21st century. *European Chemical Bulletin*, 12(Special Issue 4), 17282-17293. <https://doi.org/10.48047/ecb/2023.12.si4.1539>
- Ucar, S. (2015). The use of technology in teaching science to young children. In K.-C. Trundle & M. Saçkes (Eds.), *Research in early childhood science education* (pp. 167-184). Springer. [https://doi.org/10.1007/978-94-017-9505-0\\_8](https://doi.org/10.1007/978-94-017-9505-0_8)
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.



- Yeop, M. A., & Gapor, A. L. (2012). The effect of a technology-based project-based learning approach on student achievement and acceptance. *Jurnal Bitara*, 5, 31-45.
- Yusoff, M. S. B. (2019). ABC of content validation and content validity index calculation. *Education in Medicine Journal*, 11, 49-54. <https://doi.org/10.21315/eimj2019.11.2.6>
- Yustina, Y., Syafii, W., & Vebrianto, R. (2020). The effects of blended learning and project-based learning on pre-service biology teacher creative thinking through online learning in the Covid-19 pandemic. *Indonesian Journal of Science Education*, 9(3), 408-420. <https://doi.org/10.15294/jpii.v9i3.24706>
- Zahner, P. (1998). *Integration of technology into science education integration of technology into science education* [Master's research paper, University of Northern Iowa]. <https://scholarworks.uni.edu/grp/1832>



## **Travel Bubble in Langkawi: Insights from Hotel Managers of Muslim-friendly Budget Hotels**

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### **ABSTRACT**

With the advent of the COVID-19 pandemic, stringent restrictions were imposed on tourism activities worldwide to curb the virus' spread, resulting in disastrous consequences for the tourism sector. The Travel Bubble program was introduced in selected destinations in response to this crisis. Langkawi Island in Malaysia was chosen as the pilot location for the Travel Bubble initiative, beginning September 16, 2021. This study aims to investigate the impact of the Travel Bubble on Muslim-friendly budget hotels, both during its implementation and 18 months after its inception. This study employs a qualitative approach that entailed semi-structured interviews with seven managers of Muslim-friendly budget hotels. The findings demonstrate that while the Travel Bubble program initially boosted optimism by rejuvenating the tourism industry, it later became clear that the hotels did not equally reap its benefits. For the initial phase, only one theme emerged: Travel Bubble provides short-term benefits. Eighteen months after its launch, three themes were recognised: Langkawi is expensive, business-minded financial management, strategic location and loyal customers. From the findings, understanding and catering to customer needs and preferences is crucial for sustained success. Besides that, Langkawi must engage in sustainable innovations, which entails recognising and leveraging distinctive features to stand out in the market and sustain its competitiveness. Further, often addressing complex challenges requires collaboration and

partnership among stakeholders. This study offers several practical implications for the operators of Muslim-friendly budget hotels, such as the importance of agility (adaptability to changing circumstances), resilience (resilience in the face of challenges) and customer focus (attentive to the needs and preferences of guests).

*Keywords:* Budget hotel, Islamic tourism, Muslim-friendly hotel, SMEs, Travel Bubble

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## INTRODUCTION

The global tourism industry has a significant economic impact. According to the World Travel and Tourism Council (WTTC) (2021), this industry contributed 10.3% of the global Gross Domestic Product (GDP) in 2019, before the COVID-19 pandemic. The pandemic triggered an unprecedented crisis, sending shockwaves across the tourism industry and bringing it to a near standstill. Numerous tourism-related activities were suspended or banned to prevent widespread virus transmission. Hotels were shut down, flights were grounded, and national borders were closed (UN Tourism, 2020a, 2020b). Consequently, the industry's share of global GDP declined to 5.3% in 2020 as a result of ongoing restrictions on travel mobility (WTTC, 2021).

The Travel Bubble program was launched to aid the tourism industry in persevering through the pandemic. Also known as the Travel Corridor and Travel Zone, this program enabled travellers to visit neighbouring nations without quarantine (Asia Regional Integration Centre, 2020). In this program, a mutual agreement was reached between two or more countries to permit unlimited movement of people between the countries. The program was aimed at sustaining the tourism industry by facilitating the movement of travellers while minimising the risk of imported COVID-19 cases. Malaysia launched the Travel Bubble program on September 16, 2021, with YB Dato' Sri Hajah Nancy Shukri, Minister of Tourism, Arts, and Culture (MOTAC), announcing Langkawi as the first tourist

destination to be reopened (MOTAC, 2021). This pilot program was limited to fully vaccinated domestic tourists, with strict Standard Operating Procedures (SOPs) to limit virus transmission from undetected carriers. Upon arriving in Langkawi Island, tourists must go through a mandatory COVID-19 screening. As a result, a total of 240 361 tourists have visited Langkawi since its reopening, raking in more than RM240 million in less than two months ("In bubble plan," 2021).

The concept of the Travel Bubble as a response to the COVID-19 pandemic has been widely studied worldwide. However, most of the studies focused on the travellers' view of Travel Bubble, such as its convenience and benefits for travellers, the potential destinations and the safety measures included (Chusakul & Nonthapot, 2021; Fusté-Forné & Michael, 2023; Langgat et al., 2021; Luo & Lam, 2020; Yu et al., 2021). Besides that, these studies also discussed the program's benefits for the tourism industry in terms of its revival and promoting economic recovery. However, there is insufficient information from the perspective of destination countries regarding the Travel Bubble concept and how they benefit from it.

This study focused on Muslim-friendly budget hotels because they are part of Tourism Small and Medium Enterprises (TSMEs), which play a vital role in Malaysia's tourism industry (Mamad, 2020; Shin et al., 2020). Malaysia is among the most popular Muslim-friendly destinations globally (Khullar, 2019), and locals operate

many budget hotels that are Muslim-friendly. Thus, this study investigated the perspectives of hotel managers of Muslim-friendly budget hotels regarding the Travel Bubble program launched in Langkawi.

Studying the impact of initiatives like the Travel Bubble program on the tourism industry, particularly on Muslim-friendly budget hotels, is significant for several reasons. Firstly, this study can assess the program's effectiveness by gathering insights from hotel managers who are directly involved in the operations of Muslim-friendly budget hotels. Secondly, the perspective of Muslim-friendly budget hotel operators regarding the Travel Bubble program can provide valuable data for assessing the industry's resilience and identifying strategies for its sustainable growth and recovery. Moreover, these insights can inform the development of tailored policies, marketing strategies, and service enhancements to better serve this growing segment of tourists.

This study is also significant as it is in line with the Sustainable Development Goals Agenda 11 (SDG11), "Sustainable Cities and Communities." SDG11 recognises that as the global population continues to urbanise, it is crucial to address the challenges of urban development and ensure that cities and communities are sustainable. Furthermore, the study intends to help promote Muslim-friendly budget hotels for their sustainability and profitability. Lastly, the findings will add value to national and local planning, development and processes, as well as poverty reduction strategies.

## LITERATURE REVIEW

### Islamic Tourism in Langkawi Island

Islamic tourism is a unique concept that embraces the Islamic faith. This concept follows and enforces Islamic principles, with the Qur'an as the primary reference and the Sunnah (Samori et al., 2016). Many terms are frequently used to refer to Muslim tourism, such as Halal tourism, Shariah tourism, and Islamic tourism (Khan & Callanan, 2017). Although the names are frequently interchangeable, this study used "Islamic tourism" given that there is an advisory body to MOTAC called the Islamic Tourism Centre (ITC).

Islamic tourism is a growing market segment; it encompasses a range of activities and services catering to Muslim travellers' needs and preferences (Battour & Ismail, 2016). It is often referred to as a "goldmine" due to the potential economic opportunities it offers to various sectors such as food and beverage (halal food and drinks), Islamic finance, Islamic takaful industry, hotels, cosmetics, as well as travel and transport services (Amir Abdullah et al., 2020). Two main factors driving the expansion of Islamic tourism are the growing numbers of Muslim travellers and the rising awareness among businesses of the potential financial rewards of appealing to this particular market segment (Ekka, 2023). Moreover, Islamic tourism has proven to be a critical factor in promoting Malaysia as a preferred Muslim-friendly destination. For nine consecutive years, the Global Muslim Travel Index (GMTI) consistently ranked Malaysia as the top travel destination for

Muslim travellers (Khullar, 2019). It is also one of the preferred forms of travel among non-Muslims (Battour & Ismail, 2016; Henderson, 2009). In 2017, Malaysia managed to draw 25.9 million tourists, with 5.3 million or 20% of the tourists being Muslims (“Ministry to push for”, 2018). The high number of tourists indicates the potential for budget hotels to recover and thrive in the post-pandemic period.

Langkawi Island is one of the renowned tourist destinations in Malaysia, drawing travellers from within Malaysia and around the globe. The island’s accessibility is facilitated by a network of transportation options, including ferry rides and flights. Presently, ferry services operate from several departure points, providing convenient access to Langkawi. These routes include departures from Penang, with a travel time of approximately three hours; Kuala Perlis, which takes around 1.15 hours; Kuala Kedah, requiring about 1.45 hours; and Koh Lipe, Thailand, with just a 1.5-hour ferry ride (Langkawi-Ferry.com, 2020). In addition, flights to Langkawi are available from Kuala Lumpur, with a travel time of approximately one hour (AirAsia, 2023). Its status as a duty-free zone enhances its appeal to tourists who seek substantial savings on shopping. Langkawi Island also boasts a myriad of captivating attractions suitable for Muslim leisure travellers with a wide range of interests and preferences, such as (1) sightseeing, dining and shopping, (2) visiting relatives and friends, (3) honeymooning, (4) enjoying Islamic heritage and history, (5) seeking adventure, and (6) experiencing

local culture (Standing Committee for Economic and Commercial Cooperation of the Organization of the Islamic Cooperation [COMCEC], 2016).

### **Tourism Small and Medium Enterprises**

Tourism Small and Medium Enterprises (Tourism SMEs) refers to small or medium-sized tourism operations that offer various tourism products and services. These include lodging, food and beverage, transportation, travel tours, cultural and recreational services, and other tourism and travel-related services (Set, 2013). Tourism SMEs indeed play a vital role in the tourism industry. Most of the operators found in tourist destinations are small enterprises; thus, tourism providers primarily comprise tourism SMEs (Mamad, 2020; Shin et al., 2020). Before the COVID-19 pandemic, SMEs involved in the service sector (wholesale and retail commerce, food and beverage, and accommodation) made up more than half of all SMEs (Department of Statistics Malaysia, 2020). Therefore, tourism SMEs significantly contribute to the tourism industry and the Malaysian economy. In addition, tourism also reduces poverty and raises the living standards of the locals who own or work in these SMEs.

According to the UN Tourism (2020b), tourism SMEs are among the hardest-hit segments that need support to recover from the COVID-19 pandemic. Since many tourism destinations rely heavily on small enterprises, ensuring the sustainability of tourism SMEs is crucial for the overall revival of the tourism sector. Compared to

well-established large corporations, tourism SMEs face greater vulnerability to market pressures or crises due to limited capital and lack of necessary skills, which, in turn, can hinder the recovery of the tourism industry (Dayour et al., 2020). With regard to the Travel Bubble program, there is little information on how it has affected the performance of Muslim-friendly budget hotels from the SME operator's perspective.

### **Muslim-friendly Budget Hotels**

The term Muslim-friendly budget hotel is quite rare. Muslim-friendly hotels refer to accommodations catering to Muslim travellers' needs, offering amenities such as prayer mats, halal food options, non-alcoholic environments and segregated recreational services for women (Mannaa, 2020). While Malaysian tourism has widely acknowledged the Muslim-friendly concept (Musa, 2021), Muslim-friendly budget hotels are relatively lesser known than full-service Muslim-friendly hotels.

Budget refers to "cost" and "worth," implying the price is relatively cheap. Budget hotels typically offer basic accommodations and fewer amenities compared to full-service hotels (Bastaman et al., 2022). As classified by the Malaysia Budget & Business Hotel Association (MyBHA), budget hotels fall under the 3-star and below categories (MyBHA, 2022). This type of hotel commonly attracts young travellers with a limited budget but who love to travel (Bastaman et al., 2022). Therefore, Muslim-friendly budget hotels can be defined as an accommodation establishment that caters

to the needs of Muslim travellers, offering amenities such as prayer mats, halal food options, non-alcoholic beverages and segregated recreational services for women at a low cost.

### **METHODS**

Data collection was conducted in March 2023 for a duration of two weeks. This study employed a qualitative approach to gather information from the managers of Muslim-friendly budget hotels. The managers were selected using purposive sampling, in which researchers choose specific members of the population to participate in a study. This sampling method was deemed suitable for the present study because its primary focus was uncovering novel and comprehensive insights, rather than generalising findings. Only budget hotels that were registered with MyBHA, certified by reputable organisations (such as Salam Standard, CrescentRating, Muslim-friendly Hospitality Services [MFHS], or Islamic Quality Standard [IQS]), and promoted their hotels on halalbooking.com (a reservation platform explicitly catering to Muslim-friendly hotels) were selected for the study. The selected seven Muslim-friendly budget hotels were situated in Pekan Kuah and Pantai Cenang, renowned tourism hotspots in Langkawi. These two areas house the highest concentration of hotels on the island, making them key locations for tourists visiting Langkawi. Managers were chosen as the study participants because they play a crucial role in business planning and crisis management, particularly during

challenging times like the recent COVID-19 pandemic.

An interview protocol with semi-structured questions guided the interviews, which took an average of 20 minutes each. Participants were interviewed individually to ensure comprehensive responses. It allowed the researcher to conduct the interview session effectively. This approach encouraged participants to share detailed information about their challenges during and after the Travel Bubble period. The main interview questions are listed in Table 1.

Table 1  
*Interview questions*

No.	Interview questions	Situation
1.	What is your opinion about implementing the Travel Bubble program in Langkawi?	During Travel Bubble
2.	What is the current situation of Muslim-friendly budget hotels, 1.5 years after the implementation of Travel Bubble?	1.5 years after the implementation of the Travel Bubble

Following the guidelines outlined by Creswell (2017), seven participants were interviewed, and permission was obtained from the interviewees to record the interview session. After the seventh interview, no new information emerged, indicating data saturation. As Gill (2020) recommended, data collection was stopped at this point. The recorded interviews were transcribed to facilitate data analysis.

The data was subjected to a thematic content analysis. Thematic content analysis is a descriptive presentation of qualitative

data that involves identifying, analysing, and reporting data patterns. Thematic content analysis begins with familiarisation with the data. All interviews were transcribed. The interview transcripts were reviewed and cross-checked with the recorded audio to determine the accuracy of the transcribed data. The researcher recorded all the initial ideas in the transcript. Next, the transcripts were coded, and all the interrelated codes were grouped under the same theme. The themes were then named and read repeatedly to ensure consistency. Miles and Huberman (1994) called this stage data reduction, as it refines and organises the data to confirm conclusions. Finally, the themes were interpreted, and a report was generated. It should be noted that the interpretation of the data is influenced by the researcher’s understanding of the phenomena studied by the participants.

## FINDINGS

The participants interviewed were given code names (such as R1 and R2), and the participants’ profiles are listed in Table 2.

Table 2  
*Participants’ profiles*

Code Name	Age	Position
R1	50–55	Front Office Manager
R2	35–40	Assistant General Manager
R3	50–55	General Manager
R4	25–30	Executive Manager
R5	30–35	Front Office Manager
R6	30–35	Front Office Manager
R7	30–35	Reservation Manager



The themes were categorised based on the Travel Bubble’s timeline: during the Travel Bubble period and approximately 1.5 years after It was launched. Only one theme emerged for the first stage: *“travel bubble provides short-term benefits.”* For the second stage, three themes were identified: *“Langkawi is expensive,” “business-minded financial management,”* and *“strategic location and loyal customers.”* These themes are listed in Table 3.

Table 3  
Theme

Duration	Themes
During Travel Bubble	Theme 1: Travel Bubble provided short-term benefits
1.5 years after Travel Bubble	Theme 1: Langkawi is expensive Theme 2: Business-minded financial management Theme 3: Strategic location and loyal customers

**During Travel Bubble**

**Theme 1: Short-term Benefits from Travel Bubble**

Based on the primary data, implementing the Travel Bubble positively impacted Langkawi’s tourism industry, significantly boosting tourist arrival numbers. According to R3, this is due to travel restrictions which only allowed domestic travel: *“In the travel bubble, people were not allowed to go to other places except Langkawi. Everyone had to come to Langkawi; it was like the whole of Malaysia was heading to Langkawi.”* R4 added, *“It appears that the international border has not fully reopened*

*for travel mobility.”* Hence, tourists were limited in their domestic travel and took the opportunity to visit Langkawi.

**Almost 1.5 Years After Travel Bubble**

**Theme 1: Langkawi is Expensive**

During the Travel Bubble period, Langkawi experienced a surge in popularity and became a preferred destination. However, approximately 1.5 years after its launch, tourism in Langkawi faced challenges as the demand for travel to Langkawi decreased. R1 and R4 explained, *“Travel Bubble has seen an increase. It has now declined again.”* According to R3, the same travellers were not interested in returning to Langkawi for another visit: *“After they came to Langkawi, they wouldn’t want to come here again. During the travel bubble, there was no choice; they were forced to come to Langkawi.”* R5 further added that the tourism trend has also changed and differs from before the COVID-19 pandemic: *“Travel Bubble experienced an increase, but now it has declined again. Moreover, the tourism trend is not the same as before Covid.”*

According to R6, many people travel to Hatyai, Thailand, instead of Langkawi because they believe that vacationing in Hatyai offers better value for money than Langkawi. It is generally perceived that vacationing in Langkawi costs more. He explained, *“It has gone viral that many people are heading to Thailand Hatyai. They claimed that vacationing there was more valuable than Langkawi. It requires higher expenses in Langkawi.”*

## ***Theme 2: Business-Minded Financial Management***

After approximately 1.5 years of the Travel Bubble program, Muslim-friendly budget hotels continue to encounter several challenges. One of the significant prevailing issues faced is low occupancy rates, which results in financial difficulties and reduced revenue. R1, R2, R6, R7 and R4 shared:

“Currently, the hospitality industry in Langkawi is experiencing unsatisfactory business conditions. Our hotel occupancy is also very low. Today’s occupancy rate is only 6%.” (R1)

“The occupancy rate is only 40%-50%. It has decreased by 60% compared to before COVID-19 pandemic. It’s terribly bad but we are not incurring losses.” (R2)

“The occupancy rate decreased to 70%.” (R6 and R7)

“Today, my occupancy is below 15%, and there are times when it goes below 10%. The break-even point is around 40-45%, so it’s definitely a loss for us.” (R3)

“We are maintaining a safe occupancy rate of 80%-85%. But we are not opening all the rooms.” (R4)

The decline in occupancy rate directly impacts profitability, making it challenging

for these establishments to cover operating expenses and pay salaries. R1 contended, “*Indeed, in terms of salary payments, we have to pay salaries every month. Utility bills still need to be paid.*” R3 also expressed the same sentiment: “*Low occupancy rate. The hotel needs to pay many costs such as salaries and utility bills.*”

However, some hoteliers, like R2, have managed to keep the establishment financially stable by being debt-free and practising cautious financial management. This hotel operates on a cash-only basis. It does not offer credit purchases and does not have debts, which minimises the financial risks associated with debts.

“This hotel operates on a cash-only basis. There is no debt. We manage things step by step. By now, any previous debts should have been cleared.” (R2)

On the other hand, R5 mentioned that his hotel has opportunities for growth and is investing in expansion despite the challenging circumstances. Thanks to its strategic location, demand is increasing. Although the demand is not as good as pre-pandemic, the hotel is undergoing a growth phase. Thus, the hotel’s capacity is being expanded by adding more buildings to meet customer demands. R5 shared:

“Due to its strategic location, the demand for this hotel is increasing. Although it may not be at the same level as before COVID-19, the hotel is currently in the development phase. We are now adding more buildings to accommodate our customers’ needs.” (R5)

### **Theme 3: Strategic Locations and Loyal Customers**

The statements provided by R1, R2, R3, R5, and R6 shed light on the various aspects of Muslim-friendly budget hotels in terms of characteristics, customers, competition, and location. R1 pointed out the difference a location can make. Cenang is a “*must-visit*” destination for tourists travelling to Langkawi, making hotels in that area more attractive to visitors. On the other hand, Pekan Kuah may face lower demand due to its location and tourist preferences. R1 explained, “*The situation between Cenang and Pekan Kuah hotels is different. Cenang is a must-visit place when traveling to Langkawi. Most tourists prefer to stay there.*”

In terms of customers, R6 reported that his hotel receives a significant number of foreign long-stay guests: “*This hotel has many foreign long-stay guests.*” On the other hand, R3’s hotel heavily relies on group visits: “*This hotel depends on group visits.*” R2 commented that his hotel has acquired a number of loyal customers who frequently return to stay there. Such loyalty provides a stable source of income and helps the hotel withstand competition: “*The competition is not very high. We don’t feel it much because we have a good number of loyal customers.*” R5’s hotel is popular among influencers, who promote the hotel for free, providing valuable exposure and marketing. This aids the hotel in reaching a wider audience and attracting potential guests: “*This hotel is popular among influencers. It receives free promotion from them.*”

### **DISCUSSION**

The present study found that the Travel Bubble program initially offered a glimmer of hope when it revitalised the tourism sector, especially in Langkawi Island. According to The Straits Times (“In bubble plan,” 2021), 240 361 tourists came to Langkawi within two months of the Travel Bubble’s launch date. This figure provided short-term relief to Muslim-friendly budget hotels. These hotels, diligently catering to their patrons’ specific dietary and religious needs, witnessed a surge in bookings and occupancy rates, attributed directly to the Travel Bubble program.

However, 1.5 years after the launch of the Travel Bubble, when international travel bans were lifted, there was a noticeable decline in tourist arrivals to Langkawi Island. The decline is likely because travellers could freely explore other tourism destinations without limitations. Consequently, Muslim-friendly budget hotel occupancy rates were affected as well. According to Datuk Noorazly Rosly, the Chairman of MyBHA Langkawi chapter, visitor arrivals have plummeted by a substantial 70% compared to before the pandemic (Zulkifli & Osman, 2023). He retorted that since Langkawi can only be assessed by ferry and flights, the main factor for the reduced demand was infrequent ferry trips to the island, making it difficult for visitors to plan their journey. This attests to the importance of adaptability and continuous innovation in the tourism industry. While initiatives like the Travel Bubble can provide short-term relief, long-term sustainability requires strategies that

can anticipate and respond to changing circumstances, ensuring destinations remain competitive and accessible to travellers. Furthermore, it became apparent that the hotels did not uniformly reap the benefits of the Travel Bubble program, as some establishments grappled with challenges. Three distinct themes emerged during the analysis, shedding light on the factors influencing the varying degrees of success among these hotels: (1) Langkawi is an expensive travel destination, (2) business-minded financial management, and (3) strategic location and loyal customers.

The first theme indicates that Langkawi is expensive. Findings show that travellers' preferences have shifted, and Langkawi is no longer the same tourist attraction it once was during the Travel Bubble period. Some travellers who visited Langkawi during the Travel Bubble period came to Langkawi due to limited options but have lost interest in returning since then. In addition, Langkawi needs to compete with Hatyai, Thailand, which is perceived to be more "worth it" because the former is more costly.

The second theme is business-minded financial management. Post-Travel Bubble, Muslim-friendly budget hotels struggled due to low occupancy rates, which impacted their financial standing. However, some hoteliers maintained their financial stability through prudent financial practices, while others saw growth opportunities and invested in expansions or changes to cater to evolving customer demands. It demonstrates the value of resilience and forward-thinking strategies in navigating volatile business environments.

The findings clearly demonstrate that understanding and catering to customer needs and preferences is crucial for sustained success. Hotels that thrived post-Travel Bubble are those with strategic locations and loyal customer bases. It underscores the importance of a customer-centric approach in sustaining competitiveness and ensuring long-term viability. Besides that, Langkawi must engage in sustainable innovations, which entails recognising and leveraging distinctive features to stand out and maintain competitiveness in the tourism market. In comparing Langkawi and Hatyai, each location possesses its own unique strengths, highlighting the critical role of competitive positioning and value proposition. Finally, addressing complex challenges requires collaboration and partnerships among stakeholders. The decline in visitor arrivals due to factors like infrequent ferry trips to Langkawi underscores the need for collaborative efforts to address infrastructural and logistical challenges. Sustainable tourism innovations involve fostering partnerships and alliances to collectively tackle shared challenges and achieve mutual goals.

In this regard, destinations like Langkawi must manage their tourism resources well to make the most of any short-term increase in tourists. Langkawi also needs to ensure viability in the long run. The initial rush of tourists during the Travel Bubble period boosted tourism and local businesses, but not all hotels benefitted equally. The destination management theory posits that destinations must be adaptable

and remain innovative to withstand or capitalise on changes (Filimonau & De Coteau, 2020). Destination managers should be ready for fluctuating visitor numbers, competition from other destinations, and limited infrastructure, such as infrequent ferry services. The theory also stresses the importance of understanding and meeting customer needs, as evidenced by the success of hotels with strategic locations and loyal guests (Crotts et al., 2009). The theory also talks about how collaboration among different tourism stakeholders can help resolve difficult issues and achieve common goals (Marasco et al., 2018). In regard to Langkawi, stakeholders working together could help overcome shortcomings like insufficient ferry services and make the destination more competitive.

Notwithstanding, some may find these findings similar to that of conventional hotels for certain reasons. Firstly, these budget hotels typically do not offer breakfast, and their smaller size means that discussions around halal food, which are predominant in larger Muslim-friendly hotels, may not be as extensive. However, despite these differences, the findings still contribute valuable insights into the operations and challenges faced by Muslim-friendly budget hotels. However, Muslim tourists hail from diverse backgrounds, each with unique preferences when it comes to accommodation. While some may seek the opulence of highly rated luxury hotels, others go for budget-friendly options, for instance, Muslim youth (Bastaman et al., 2022).

## CONCLUSION

The present study highlights the critical implications gained from the implementation of the Travel Bubble program and its aftermath on Muslim-friendly budget hotels in Langkawi. Initially, the Travel Bubble significantly boosted Langkawi's tourism industry, helping Muslim-friendly budget hotels attract a considerable number of visitors and thereby offering short-term economic relief. However, this surge in tourism could not be sustained once international travel restrictions were lifted, leading to a sharp decline in tourist numbers and hotel occupancy rates. The study reveals that while some hotels managed to stay financially stable through prudent management and strategic expansion, others struggled due to high operational costs and low demand.

Moreover, the study underscores the importance of adaptability, strategic location, and customer loyalty for the long-term viability of tourism enterprises. The challenges faced by Langkawi, such as its higher costs compared to competitors like Hatyai, Thailand, and the impact of infrequent ferry services, emphasise the need for continuous innovation and collaborative efforts among stakeholders to maintain competitiveness. The findings also illustrate the necessity of understanding and catering to customer preferences to sustain business success. Overall, the study contributes valuable insights into the resilience and strategic responses required by Muslim-friendly budget hotels and the broader tourism sector in the wake of

unprecedented crises like the COVID-19 pandemic.

### **Implications for Practice**

The findings of this study offer practical insights for operators of Muslim-friendly budget hotels, particularly in destinations like Langkawi. The study emphasises the importance of agility, resilience, and customer focus, which means adaptable to changing circumstances, resilient in the face of challenges, and attentive to guests' needs and preferences. These elements are crucial for Muslim-friendly budget hotels to navigate disruptive events such as the recent COVID-19 pandemic and emerge stronger by retaining customer loyalty and satisfaction.

Moreover, strategic competitive positioning and collaboration are key long-term success strategies. Muslim-friendly budget hotels can strategically position themselves in the tourism market by securing the right market segments, such as Muslim travellers. Further, collaborating with other stakeholders, such as local businesses, tourism authorities and community organisations, allows them to leverage resources, share knowledge and create innovative experiences that attract visitors and drive sustainable growth over time.

Furthermore, by prioritising customer satisfaction, innovation, and collaboration, Langkawi can enhance its attractiveness as a tourism destination, attracting more visitors and generating economic opportunities for local businesses, including Muslim-friendly

budget hotels. Lastly, collaboration fosters stronger relationships and trust among stakeholders, paving the way for future partnerships and initiatives that benefit all parties involved. Hotels, local businesses, and tourism authorities can develop joint marketing campaigns, infrastructural improvements, and community development projects to enhance the tourism experience and contribute to the destination's sustainability.

### **Future Studies**

While this study offers valuable insights into the impact of the Travel Bubble on seven Muslim-friendly budget hotels in Langkawi, it is important to acknowledge its limitations. The scope of the study is narrow, focusing solely on the selected hotels and their immediate experiences.

Firstly, the study is geographically limited to Langkawi, a popular tourist destination in Malaysia. The findings might not be generalisable to other regions or countries with different socio-economic conditions, tourist demographics, or government policies. Other regions might have different responses to the Travel Bubble, influenced by their unique circumstances and local tourism infrastructure.

Secondly, the study only considered seven budget hotels that are Muslim-friendly. This small sample size may not accurately represent the broader hotel industry in Langkawi or other types of accommodations, such as luxury hotels, resorts, or non-Muslim-friendly budget hotels. The experiences and challenges these

seven hotels face may differ significantly from those of other establishments, limiting the applicability of the study's conclusions.

Thirdly, the study focuses on these hotels' immediate experiences. This short-term perspective might overlook long-term impacts and trends that could emerge over time. For example, this analysis might not fully capture the sustainability of the Travel Bubble's positive effects or potential long-term challenges. Economic, social, and environmental factors that evolve over a longer period could significantly alter the initial findings.

Furthermore, the study did not fully explore the perspectives of all stakeholders involved. While it focused on hotel management and operations, the views and experiences of tourists, employees, local businesses, and the wider community are also crucial for a comprehensive assessment. Thus, including these perspectives could provide a more holistic understanding of the Travel Bubble's impact on the local tourism ecosystem.

Therefore, further research is necessary to understand the broader implications of the Travel Bubble program. Future studies should explore the effects of the Travel Bubble on the entire tourism ecosystem, including various stakeholders such as tour operators, attraction managers and transportation providers. Understanding how the Travel Bubble program affected different sectors within the tourism industry can provide a more holistic view of its effectiveness and its implications for local economies. Additionally, considering

the global context of the COVID-19 pandemic, further research should examine the broader implications of the Travel Bubble on international efforts to manage the pandemic. It includes assessing Travel Bubble's effectiveness in containing the virus' spread while facilitating economic recovery and restoring traveller confidence.

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## REFERENCES

- AirAsia. (2023). *Flights from Kuala Lumpur to Langkawi*. Retrieved October 9, 2023, from <https://www.airasia.com/flights/from-kuala-lumpur-kul-to-langkawi-lgk>
- Amir Abdullah, A., Daud Awang, M., & Abdullah, N. (2020). Islamic tourism: The characteristics, concept and principles. *KnE Social Sciences*, 4(9), 196-215. <https://doi.org/10.18502/kss.v4i9.7326>
- Asia Regional Integration Center. (2020). *Tourism recovery through Travel Bubbles?* Retrieved August 1, 2023, from <https://aric.adb.org/rcipod/tourism-recovery-through-travel-bubbles>
- Bastaman, A., Hj Hassan, F., Ekasari, A., & Yotfiatfinda. (2022). Adopting conventional budget hotels into Muslim-friendly budget

- hotels: An exploratory analysis. *Jurnal Ekonomi*, 11(03), 163-168.
- Battour, M., & Ismail, M. N. (2016). Halal tourism: Concepts, practises, challenges and future. *Tourism Management Perspectives*, 19, 150-154. <https://doi.org/10.1016/j.tmp.2015.12.008>
- Chusakul, W., & Nonthapot, S. (2021). Travel bubble policy supporting between Thailand and Laos: Evidence from tourist market integration testing. *Journal of Environmental Management and Tourism*, 12(4), 948-957. [https://doi.org/10.14505/jemt.v12.4\(52\).09](https://doi.org/10.14505/jemt.v12.4(52).09)
- Creswell, J. W. (2017). *Research design: Qualitative, quantitative and methods approaches* (3<sup>rd</sup> ed.). Sage Publications.
- Crotts, J. C., Mason, P. R., & Davis, B. (2009). Measuring guest satisfaction and competitive position in the hospitality and tourism industry: An application of stance-shift analysis to travel blog narratives. *Journal of Travel Research*, 48(2), 139-151. <https://doi.org/10.1177/0047287508328795>
- Dayour, F., Adongo, C. A., Amuquandoh, F. E., & Adam, I. (2020). Managing the COVID-19 crisis: Coping and post-recovery strategies for hospitality and tourism businesses in Ghana. *Journal of Hospitality and Tourism Insights*, 4(4), 373-392. <https://doi.org/10.1108/JHTI-08-2020-0150>
- Department of Statistics Malaysia. (2020). *Small and Medium Enterprises (SME) performance 2019*. Department of Statistics Malaysia Official Portal.
- Ekka, P. M. (2023). Halal tourism beyond 2020: Concepts, opportunities and future research directions. *Journal of Islamic Marketing*, 15(1), 42-58. <https://doi.org/10.1108/JIMA-09-2022-0260>
- Filimonau, V., & De Coteau, D. (2020). Tourism resilience in the context of integrated destination and disaster management (DM2). *International Journal of Tourism Research*, 22(2), 202-222. <https://doi.org/10.1002/jtr.2329>
- Fusté-Forné, F., & Michael, N. (2023). Limited tourism: Travel bubbles for a sustainable future. *Journal of Sustainable Tourism*, 31(1), 73-90. <https://doi.org/10.1080/09669582.2021.1954654>
- Gill, S. L. (2020). Qualitative sampling methods. *Journal of Human Lactation*, 36(4), 579-581. <https://doi.org/10.1177/0890334420949218>
- Henderson, J. C. (2009). Islamic tourism reviewed. *Tourism Recreation Research*, 34(2), 207-211. <https://doi.org/10.1080/02508281.2009.11081594>
- In bubble plan, Malaysia's Langkawi Island opens up to foreign travellers. (2021, November 15). *The Straits Times*. <https://www.straitstimes.com/asia/se-asia/in-bubble-plan-malaysias-langkawi-island-opens-up-to-foreign-travellers>
- Khan, F., & Callanan, M. (2017). The "Halalification" of tourism. *Journal of Islamic Marketing*, 8(4), 558-577. <https://doi.org/10.1108/JIMA-01-2016-0001>
- Khullar, K. (2019, April 9). *Mastercard-CrescentRating Global Muslim Travel Index (GMTI) 2019. Indonesia and Malaysia take the top positions in the fast-growing Muslim travel market*. <https://www.mastercard.com/news/ap/en/newsroom/press-releases/en/2019/april/mastercard-crescentrating-global-muslim-travel-index-gmti-2019-indonesia-and-malaysia-take-the-top-positions/>
- Langgat, J., Pawan, M. T., Fabeil, N. F., & Pazim, K. H. (2021). Travel bubble: Risk anxiety, risk attitude and intention to travel during COVID-19 outbreak. *Journal of Tourism, Hospitality & Culinary Arts (JTHCA)*, 13(3), 271-283. <https://doi.org/10.46754/gtc.2021.11.044>
- Langkawi-Ferry.com. (2020). *Schedule and fare*. Retrieved January 1, 2024, from <https://www.langkawiferryline.com/>



- Luo, J. M., & Lam, C. F. (2020). Travel anxiety, risk attitude and travel intentions towards “travel bubble” destinations in Hong Kong: Effect of the fear of COVID-19. *International Journal of Environmental Research and Public Health*, 17(21), 7859. <https://doi.org/10.3390/ijerph17217859>
- Malaysia Budget & Business Hotel Association. (2022). *About MyBha*. Retrieved June 3, 2023, from <https://mybha.org/index.php/about/about/>
- Mamad, N. A. (2020). Survival strategies on Muslim small and medium enterprise (SME) owners during COVID-19: A study on tourism industry in Malacca. In N. Abd Wahab & M. Y. Isa (Eds), *Proceedings of the 3rd UUM International Islamic Business Management Conference 2020 (IBMC 2020)* (pp. 53-60). Universiti Utara Malaysia.
- Mannaa, M. T. (2020). Halal food in the tourist destination and its importance for Muslim travellers. *Current Issues in Tourism*, 23(17), 2195-2206. <https://doi.org/10.1080/13683500.2019.1616678>
- Marasco, A., De Martino, M., Magnotti, F., & Morvillo, A. (2018). Collaborative innovation in tourism and hospitality: A systematic review of the literature. *International Journal of Contemporary Hospitality Management*, 30(6), 2364-2395. <https://doi.org/10.1108/ijchm-01-2018-0043>
- Miles, M. B., & Huberman, A. (1994). *Qualitative data analysis: A sourcebook of new methods*. Sage Publications.
- Ministry of Tourism, Arts and Culture. (2021, Sept 9). *Pemakluman berhubung SOP gelembung pelancongan (Travel Bubble) projek rintis Pulau Langkawi [The announcement regarding the Standard Operating Procedures (SOP) for the Tourism Bubble (Travel Bubble) pilot project for Langkawi Island]* [Media release]. <https://www.motac.gov.my/media2/siaran/pemakluman-berhubung-sop-gelembung-pelancongan-travel-bubble-projek-rintis-pulau-langkawi>
- Ministry to push for multi-billion dollar halal tourism. (2018, September 6). *The Star*. <https://www.thestar.com.my/news/nation/2018/09/06/ministry-to-push-for-multibillion-dollar-halal-tourism/>
- Musa, A. (2021). Analysis on the principles of Maqasid Shariah in Islamic hotels. *Psychology and Education Journal*, 58(2), 1563-1576. <https://doi.org/10.17762/pae.v58i2.2310>
- Samori, Z., Md Salleh, N. Z., & Khalid, M. M. (2016). Current trends on Halal tourism: Cases on selected Asian countries. *Tourism Management Perspectives*, 19, 131-136. <https://doi.org/10.1016/j.tmp.2015.12.011>
- Set, K. (2013). Tourism Small and Medium Enterprises (TSMES) in Malaysia. *International Journal of Business and Social Science*, 4(16), 58-67.
- Shin, O. K., Weng, C. N., & Dawood, S. R. S. (2020). Challenges facing small and medium tourism enterprises: A case study in Kuala Sepetang. In N. Samat, J. Sulong, M. Pourya Asl, P. Keikhosrokiani, Y. Azam, & S. T. K. Leng (Eds.), *Innovation and transformation in humanities for a sustainable tomorrow, vol 89. European Proceedings of Social and Behavioural Sciences* (pp. 391-399). European Publisher. <https://doi.org/10.15405/epsbs.2020.10.02.35>
- Standing Committee for Economic and Commercial Cooperation of the Organization of the Islamic Cooperation (COMCEC). (2016). *Muslim friendly tourism: Understanding the demand and supply sides in the OIC member countries*. COMCEC Coordination Office.
- UN Tourism. (2020a, April 17). *COVID-19 response: 96% of global destinations impose travel restrictions, UNWTO reports*. <https://www.unwto.org/news/covid-19-response-travel-restrictions>

- UN Tourism. (2020b). *Impact assessment of the COVID-19 outbreak on international tourism*. <https://www.unwto.org/impact-assessment-of-the-covid-19-outbreak-on-international-tourism>
- World Travel & Tourism Council. (2021). *Economic impact reports*. <https://wttc.org/research/economic-impact>
- Yu, J. H., Lin, H. H., Lo, Y. C., Tseng, K. C., & Hsu, C. H. (2021). Is the travel bubble under COVID-19 a feasible idea or not? *International Journal of Environmental Research and Public Health*, 18(11), 5717. <https://doi.org/10.3390/ijerph18115717>
- Zulkifli, A., & Osman, H. (2023, March 1). No reprieve for tourism players in Langkawi despite school break. *New Straits Times*. <https://www.nst.com.my/news/nation/2023/03/884766/no-reprieve-tourism-players-langkawi-despite-school-break>

# Promoting Safety Behaviour Among Operatives in the SME Manufacturing Sector in Malaysia: The Mediating Effect of Safety Knowledge

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## ABSTRACT

Occupational accidents pose a significant challenge to Malaysia's SME manufacturing sector, a critical driver of the national economy. This study investigates the impact of safety attitude, safety training, and safety knowledge on operatives' safety behaviour, exploring the mediating role of safety knowledge. Using a cross-sectional survey design and structural equation modelling (SEM) with SmartPLS, all three factors significantly influenced safety behaviour. Notably, safety attitude and training directly impact safety behaviour, while safety knowledge acts as a mediator, enhancing their positive effect. This research provides valuable insights for promoting a safer working environment within the SME manufacturing sector, underscoring the importance of cultivating positive safety attitudes, delivering effective training, and ensuring a robust foundation of safety knowledge among operatives.

*Keywords:* Safety attitude, safety behaviour, safety knowledge, safety training, structural equation modelling, SME manufacturing sector

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## INTRODUCTION

Malaysia's manufacturing industry has been a cornerstone of the nation's economic growth, evolving significantly since the 1970s when the country transitioned from an agriculture-based economy to an industrial powerhouse. With strategic government

incentives attracting foreign investments, Malaysia rapidly built its manufacturing capabilities, establishing itself as a global production hub. Today, small and medium-sized enterprises (SMEs) are the backbone of this sector, comprising 97.14% (47,698 firms) of the total manufacturing landscape (Department of Statistics [DOSM], 2022).

In 2022, the manufacturing sector was responsible for 69.3% of Malaysia's total SME exports, highlighting its critical role in the national economy. SMEs contributed 13.5% to the total exports, with manufacturing at 9.4%, followed by services at 3.9% and agriculture at 0.3% (DOSM, 2022). Notably, the services and manufacturing sectors collectively drive more than 80% of SMEs' GDP activities, underscoring their significance to Malaysia's economic stability (DOSM, 2022).

However, this industrial success is shadowed by a concerning rise in occupational accidents, particularly within the manufacturing sector. The Department of Occupational Safety and Health Malaysia (DOSH) reported that over the past six years, from 2018 to 2022, a staggering 32,082 occupational accidents were recorded, with 20,658 occurring in the manufacturing industries alone. The highest number of occupational accidents were reported in 2019 and 2022, with 7,984 and 6,719 cases, respectively, where manufacturing industries accounted for 4,948 and 4,514 of these incidents. However, there was a slight decrease in accidents in 2020 and 2021, with 6,933 and 5,415 incidents, respectively, with 4,506 (in 2020) and 3,462 (in 2021) incidents

occurring in manufacturing. This reduction can be partly attributed to the Movement Control Order (MCO) implemented during the COVID-19 outbreak. Nevertheless, occupational accidents in manufacturing accounted for about 65% of all occupational accidents in Malaysia during this period (DOSH, 2022). These statistics indicate the need for robust safety measures to protect workers and sustain economic progress.

Thus, this study addresses these safety concerns by investigating the relationship between safety management practices and safety behaviour among operatives in Malaysia's SME manufacturing sector. Furthermore, it explores the potential mediating role of safety knowledge in enhancing the positive impact of safety management practices on safety behaviour. By examining these dynamics, the study seeks to contribute valuable insights into improving workplace safety and, ultimately, the sustainability of Malaysia's vital manufacturing industry.

## LITERATURE REVIEWS

### Safety Behaviour

Safety behaviour refers to actions aimed at self-protection, adherence to safety regulations, and the prevention of harm to oneself and others in the workplace (Guo et al., 2016; Seo et al., 2015). Positive safety behaviour is associated with overall workplace well-being and reflects employees' attitudes and actions in performing safety-related tasks (Schwartz et al., 2019). Non-compliance with safety behaviours is critical as it demonstrates

the individual's role in maintaining a safe work environment, with risky behaviours potentially leading to more significant physical hazards (Simanjuntak et al., 2023).

Safety behaviour is typically classified into safety participation (task-oriented) and safety compliance (rule-oriented) (Griffin & Neal, 2000; Li et al., 2020). Safety participation includes practices that promote a safe environment, such as assisting colleagues and contributing to safety programs, while safety compliance involves adherence to standard procedures and regulations (Griffin & Neal, 2000; Li et al., 2020).

Research indicates that workplace accidents are often more closely linked to employees' behaviours, particularly their safety attitudes, than to the inherent risks of their tasks (Schwartz et al., 2019). Safety attitude refers to an individual's mindset towards adhering to safety protocols and practices, which can significantly influence their likelihood of engaging in safe or unsafe behaviours. Organisational factors, such as the quality of safety training provided by firms, are crucial in shaping these attitudes. Effective safety training imparts essential knowledge and fosters a positive safety attitude among employees, thereby reducing workplace accidents (Schwartz et al., 2019).

In addition to safety attitudes, cognitive factors like safety knowledge are closely linked to workplace accidents. Safety knowledge refers to employees' understanding of safety procedures, risks, and best practices within their work environment (Vinodkumar & Bhasi, 2010).

Employees with comprehensive safety knowledge are better equipped to recognise hazards and make informed decisions that prevent accidents. This knowledge is an added value to both safety attitudes and training, as it enhances the overall effectiveness of these factors in promoting safe behaviour. A positive safety attitude, high-quality safety training, and robust safety knowledge create a strong foundation for reducing workplace accidents and fostering a safer work environment.

Safety behaviour is essential for workplace safety, encompassing self-protection and adherence to regulations to prevent harm. Positive safety behaviour, linked to overall well-being, involves safety participation and compliance. Employee factors, such as safety attitude, play a crucial role in determining how individuals approach safety protocols and practices. A positive safety attitude increases the likelihood of employees engaging in safe behaviours. Organisational factors, particularly safety training, are significant in equipping employees with the necessary knowledge and skills to effectively understand and implement safety practices. Finally, cognitive factors like safety knowledge are essential for empowering employees to recognise hazards and make informed decisions that prevent accidents.

These predictors are closely linked to workplace accidents and are more significant predictors of safety behaviour than the inherent risks of the tasks themselves. Understanding and enhancing these factors

is especially vital in SME manufacturing firms, where many workplace accidents result from employee actions, underscoring the importance of addressing root causes rather than assigning blame.

### **Safety Attitude**

Attitude significantly influences individual behaviour, especially in the context of workplace safety (Basahel, 2021). A safety attitude refers to a person's tendency to react positively or negatively toward safety-related issues, influencing how they approach safety protocols and procedures (Kao et al., 2019). Middle- and upper-level managers play a crucial role in shaping these attitudes, as their actions and decisions can directly impact employees' commitment to and compliance with safety procedures (Tadesse & Zawdie, 2019).

Although attitudes may seem straightforward, they involve complex processes, often becoming automatic through repeated behaviours (Li et al., 2019). When employees' attitudes diverge from the organisation's safety perspective, it can lead to unsafe behaviours and contribute to industrial accidents. Practical strategies to address these behaviours include replacing old habits and habituation and implementing consequences for non-compliance (Loosemore & Malouf, 2019).

Additionally, workplace uncertainty can influence safety attitudes and behaviours, highlighting the importance of aligning employee attitudes with organisational safety goals (Basahel, 2021; Li et al., 2019). Leaders and managers play a

crucial role in shaping these attitudes and behaviours, mainly through their emotional and behavioural influence on employees (Tadesse & Zawdie, 2019).

### **Safety Training**

Safety training is essential for educating employees about potential hazards, defence methods, and safe practices in the workplace (Bae et al., 2021). Effective training equips employees with the skills and knowledge to perform tasks safely and efficiently, promoting safety-conscious behaviour and boosting productivity (Pamidimukkala & Kermanshachi, 2021). It involves repetitive instruction and practical experience to ensure employees can handle job-specific conditions safely (Che Huei et al., 2020).

Structured safety training programs are critical for new employees, enhancing overall workplace security and well-being (Maliha et al., 2021). Proper training increases adherence to safety procedures and helps identify deficiencies in workplace layouts (Layson et al., 2019). Training and interventions like safety check-ups and meetings significantly reduce the likelihood of occupational accidents (Bae et al., 2021).

Safety training, including first aid, raises safety awareness and encourages safe practices, thereby reducing workplace risks (Loosemore et al., 2019). Ongoing training and refresher programs are vital for maintaining high safety standards and preventing incidents, making accidents more predictable and manageable (Che Huei et al., 2020; Pamidimukkala & Kermanshachi, 2021). Organisations prioritising safety

training demonstrate their commitment to employee well-being and foster a culture of mutual safety goals (Layson et al., 2019).

### **Safety Knowledge**

Safety knowledge, encompassing both theoretical and practical information, is crucial for establishing a secure working environment and is a key determinant of safety behaviour (Hu et al., 2021). Effective risk communication between employers and employees depends on a solid understanding of workplace risks, with knowledge exchange being vital for supporting safe work practices (Huang & Yang, 2019). Insufficient safety knowledge has been linked to increased workplace accidents, highlighting the need for comprehensive safety training and education (Hu et al., 2021).

Enhancing safety knowledge involves disseminating information about safe job performance through safety rules, training, and communication (Duryan et al., 2020). In sectors like mining, a lack of awareness and inadequate training have contributed to accidents, underscoring the importance of effectively transmitting and applying safety knowledge (Guo et al., 2016; Hu et al., 2021). Knowledge exchange, sharing and receiving task-related information, methods, and feedback occur through formal and informal channels and are essential for improving safety behaviour and reducing violations (Wöll & Sulíková, 2022).

Both employees and employers must possess adequate safety knowledge and awareness to prevent occupational

accidents. Gaining insights from colleagues' experiences can further reinforce safe work practices, thereby reducing the likelihood of accidents in environments with low safety awareness.

## **HYPOTHESIS DEVELOPMENT**

### **Safety Attitude and Safety Behaviour**

The reviewed literature consistently supports the positive relationship between safety attitude and safety behaviour across various industries. For instance, Li et al. (2019) examined coal miners in China and found that a positive safety attitude is closely linked to safer behaviour. Similarly, Basahel (2021) explored safety attitudes among workers in electrical and construction projects in Saudi Arabia, revealing a strong positive relationship between safety attitude and safety behaviour. Furthermore, Ji et al. (2019) further demonstrated that safety attitude indirectly influences safety behaviour among flight attendants in the aviation industry, highlighting the importance of a positive safety attitude in fostering safer work practices. In manufacturing, Abdullah et al. (2016) found that safety attitude positively affects safety behaviour among operative workers. Sugumaran et al. (2017) also confirmed a positive correlation between safety attitude and safety behaviour in manufacturing firms in Selangor, Malaysia.

However, while the relationship between safety attitude and safety behaviour is well-established, there is a notable lack of empirical evidence, specifically from Small and Medium Enterprises (SMEs)

in the manufacturing sector. This gap in research limits our understanding of how safety attitudes translate into safety behaviours within this crucial segment of the manufacturing industry. In essence, the expected findings from this study strongly suggest that safety attitude is critical in influencing safety behaviour. Therefore, it could be hypothesised that:

H1: Safety attitude significantly influences safety behaviour among operatives in the SME manufacturing sector.

### **Safety Training and Safety Behaviour**

Loosemore et al. (2019) found that safety training significantly influenced the safety behaviour of construction employees in Australia, demonstrating that well-structured training programs can lead to safer practices on-site. Similarly, Newaz et al. (2019) reported that safety training positively impacted worker safety behaviour in construction firms, highlighting the role of training in promoting a safety-conscious workforce.

In the mining industry, Bae et al. (2021) observed that safety training positively impacted safety behaviour among quarry employees, underscoring the importance of training in hazardous work environments. Hassan et al. (2019) further demonstrated a positive correlation between safety training and safety behaviour among employees at Malaysian SMEs, reinforcing that effective training enhances adherence to safety protocols. Hou et al. (2021) also found a strong connection between safety training

and safety behaviour in a study involving employees from a northern SME company, indicating that safety training is critical in encouraging safe practices across different sectors.

As a result, the consistent findings across these studies suggest that safety training significantly influences safety behaviour, making it a critical component of efforts to enhance workplace safety and reduce accidents. However, despite the established link between safety training and safety behaviour, there's a significant lack of research specifically focusing on SME manufacturing firms. This gap in understanding hinders our ability to tailor effective safety training programs for this vital sector, leaving many SMEs vulnerable to safety risks. This lack of research specifically focused on SMEs highlights the need to investigate the impact of safety training within this context. Therefore, it can be hypothesised that:

H2: Safety training significantly influences safety behaviour among operatives in the SME manufacturing sector.

### **Safety Knowledge and Safety Behaviour**

Safety knowledge is essential for fostering safety behaviour. It equips employees with the awareness to prevent accidents and injuries, creating a safer workplace (Duryan et al., 2020). Most workplace accidents involve a behavioural component, making safety knowledge a critical factor in promoting behaviours that prevent adverse outcomes (Huang et al., 2019).



The relationship between safety knowledge and behaviour is particularly evident in how employees respond to unexpected situations. Workers with thorough safety knowledge can quickly recognise potential hazards and take appropriate actions to mitigate risks, demonstrating proactive behaviour that prevents minor issues from escalating into major accidents (Kao et al., 2019). Regular training and continuous education are essential in reinforcing the importance of translating safety knowledge into everyday behaviour, ensuring that safe practices are consistently applied (Zulkifli, 2020).

Ultimately, the relationship between safety knowledge and safety behaviour is vital for maintaining a safe working environment. Safety knowledge provides the necessary understanding to identify and manage risks, while safety behaviour ensures that this knowledge is actively applied (Basahel, 2020). This dual focus creates a culture of safety, where employees are both aware of hazards and committed to following best practices to prevent them, leading to fewer accidents and a more secure workplace.

However, while the importance of this relationship is evident, research specifically investigating the impact of safety knowledge and behaviour within the context of SME manufacturing firms remains scarce. This lack of focused research limits our understanding of effectively implementing safety training programs that translate into tangible improvements in safety practices within this critical sector. Based on this understanding, it can be hypothesised that;

H3: Safety knowledge significantly influences safety behaviour among operatives in the SME manufacturing sector.

### **Safety Attitude and Safety Knowledge**

Enhancing safety knowledge is crucial to influencing safety attitudes, which drives safety behaviour (Vinodkumar & Bhasi, 2010). When employees acquire safety knowledge, they develop positive or negative attitudes based on this information, which subsequently shapes their behaviour. For example, increased awareness and understanding of safety issues, such as the importance of wearing protective equipment, lead to a more favourable attitude towards safety practices and greater compliance with safety protocols.

Safety knowledge, which involves understanding safety protocols, potential hazards, and appropriate emergency responses, is essential for workers to identify risks and implement preventive measures (Basahel, 2020). However, this knowledge alone is insufficient if it is not coupled with a favourable safety attitude. A strong safety attitude is characterised by a proactive commitment to safety, adherence to protocols, and a sense of responsibility for the safety of oneself and others. Workers with a positive safety attitude are likelier to apply their knowledge effectively, contributing to a safer work environment. In contrast, a lack of safety attitude can result in complacency, where even knowledgeable workers might neglect safety procedures, thereby increasing the risk of accidents (Saini et al., 2023).

Therefore, the relationship between safety attitude and safety knowledge is symbiotic. Safety knowledge provides the foundation for understanding and addressing workplace risks, while a positive safety attitude ensures that this knowledge is consistently applied in practice. They create a strong safety culture that minimises accidents and promotes a secure working environment. Without a positive safety attitude, the impact of safety knowledge is diminished, highlighting the need to foster both elements to achieve optimal safety outcomes.

However, despite this understanding, the specific relationship between safety attitude and safety knowledge among operatives in SME manufacturing firms remains under-researched. This gap in knowledge limits our ability to develop targeted interventions that effectively address the unique challenges faced by operatives in this sector. Thus, it can be hypothesised that:

H4: Safety attitude significantly influences safety knowledge among operatives in the SME manufacturing sector.

### **Safety Training and Safety Knowledge**

Safety knowledge involves understanding potential hazards and correctly handling machinery, equipment, and processes (Barati Jozan et al., 2023). Safety training builds upon this foundation by providing in-depth information about these hazards and teaching workers how to mitigate them effectively. Training equips employees with the necessary skills and techniques to

safely manage potential dangers, ensuring they can apply best practices, protocols, and procedures in their daily tasks (Albert & Routh, 2021). Moreover, safety training is crucial in enhancing existing safety knowledge by introducing new and updated safety guidelines, regulations, and industry standards. This continuous education reinforces a strong safety culture, encouraging workers to prioritise safety and comply with the latest safety regulations (Awolusi et al., 2018). As a result, employees are better equipped to recognise and respond to hazardous situations, reducing the likelihood of workplace accidents and injuries.

The practical aspect of safety training, including hands-on sessions, simulations, and drills, further reinforces safety knowledge by allowing employees to practice and apply what they have learned in a controlled environment (Hussain et al., 2020). This experiential learning solidifies theoretical knowledge and builds confidence in workers' ability to manage real-life risks effectively.

Additionally, the continuous improvement of safety training programs, informed by employee feedback, incident reports, and advancements in safety technology, is essential for sustaining and updating safety knowledge. By regularly revising training content and incorporating new safety practices, companies can ensure that their workforce remains knowledgeable and prepared to address emerging risks (Albert & Routh, 2021). This dynamic relationship between safety training and safety knowledge fosters a proactive

approach to safety management, ultimately leading to a safer and more productive workplace.

However, while the connection between safety training and safety knowledge is well-established, there is a notable lack of research examining this relationship within the context of SME manufacturing firms, particularly among operatives. This gap in knowledge hinders the ability to develop and implement effective safety training programs tailored to this critical sector's specific needs and challenges. In conclusion, drawing from the evidence presented in the literature, it can be hypothesised that:

H5: Safety training significantly influences safety knowledge among operatives in the SME manufacturing sector.

### **Safety Knowledge as a Possible Mediator *Safety Attitude and Safety Behaviour***

The literature suggests that safety attitudes can be shaped by an individual's level of safety knowledge. When employees are well-informed about safety protocols and the risks associated with their work, they are more likely to develop a positive safety attitude (Kao et al., 2019). This attitude, in turn, influences their behaviour, leading to safer practices and reduced workplace accidents. For instance, employees who understand the importance of wearing protective equipment are likelier to have a favourable attitude toward safety measures and consistently engage in behaviours that align with safety protocols (Basahel, 2020).

Moreover, the relationship between safety attitude and safety behaviour is strengthened when safety knowledge is actively applied in the workplace. A positive safety attitude ensures that the knowledge gained is not merely theoretical but is translated into practical, everyday actions that enhance workplace safety (Saini et al., 2023). Conversely, without a positive safety attitude, even the most comprehensive safety knowledge may not be effectively applied, leading to potential lapses in safety practices and an increased risk of accidents.

Given the interconnectedness of these variables, it can be hypothesised that safety knowledge serves as a mediator between safety attitude and safety behaviour. Specifically, safety knowledge may enhance the impact of safety attitudes on safety behaviour by providing the necessary understanding and tools for employees to act on their positive attitudes toward safety. In this way, safety knowledge bridges the gap between attitude and behaviour, ensuring that employees recognise the importance of safety and consistently engage in behaviours that uphold safety standards (Kao et al., 2019; Saini et al., 2023).

However, while this mediating effect of safety knowledge is a compelling theoretical framework, research investigating this relationship within the context of SME manufacturing firms, particularly among operatives, remains notably limited. This gap in research hinders our understanding of how to effectively leverage safety knowledge to improve safety outcomes within this critical sector. In conclusion,

drawing from the evidence presented in the literature, it can be hypothesised that:

H6: Safety knowledge mediates the relationship between safety attitude and safety behaviour among operatives in the SME manufacturing sector.

### ***Safety Training and Safety Behaviour***

The relationship between safety training, safety knowledge, and safety behaviour is critical in fostering a safe and productive work environment, particularly in high-risk sectors such as manufacturing. Safety behaviour, which includes actions such as adherence to safety regulations, proper use of protective equipment, and proactive identification of potential hazards, is influenced by both the level of safety knowledge employees possess and the training they receive (Schwartz et al., 2019).

Safety training plays a foundational role in imparting safety knowledge. It provides employees with the necessary information and skills to understand potential hazards, proper machinery handling, and appropriate responses to emergencies (Santi et al., 2020). This training equips workers with theoretical knowledge and emphasises practical application through hands-on sessions, simulations, and drills, which are essential for reinforcing and internalising safety protocols (Rezaei & Jamshidi, 2019). As a result, employees who undergo comprehensive safety training are better prepared to recognise and respond to hazardous situations, significantly reducing the likelihood of accidents and injuries in the workplace.

Enhancing safety knowledge through training is crucial for developing effective safety behaviour. When well-trained, employees acquire new safety knowledge and update and reinforce their understanding of safety practices. This continuous learning process ensures that workers remain informed about the latest safety standards and regulations, promoting safety compliance and vigilance (Awolusi et al., 2018).

Moreover, the practical aspect of safety training allows employees to practice applying their knowledge in controlled environments, which boosts their confidence and ability to manage real-life risks effectively (Kao et al., 2019). Safety knowledge serves as a mediator between safety training and safety behaviour. The knowledge gained from training programs directly influences how employees behave in the workplace.

Workers with comprehensive safety knowledge are likelier to exhibit behaviours that prevent accidents and promote a safe working environment. They are also better equipped to make informed decisions contributing to organisational-wide safety (Santi et al., 2019). Therefore, while safety training provides the necessary knowledge, applying this knowledge through safety behaviour ultimately ensures workplace safety.

Given the interrelationship of these variables, it can be hypothesised that safety knowledge mediates the relationship between safety training and safety behaviour. Specifically, safety knowledge enhances the

effectiveness of safety training by translating the information and skills acquired during training into practical safety behaviours that protect employees and reduce workplace risks.

H7: Safety knowledge mediates the relationship between safety training and safety behaviour among operatives in the SME manufacturing sector.

## METHODS

### Research Design

This research employed a cross-sectional survey design in which participants were surveyed simultaneously through distributed questionnaires. The study involved hypothesis testing, with six hypotheses grounded in earlier studies on safety management practices, safety knowledge, and safety behaviour. Additionally, a correlational analysis was conducted to examine the relationships among safety attitude, training, knowledge, and behaviour. Moreover, safety knowledge was introduced as a mediating factor to evaluate its influence on the connection between safety attitude, safety training, and safety behaviour.

### Instrument Development

The study employed a questionnaire divided into (1) demographic information from participants and (2) gathering items related to four theoretical constructs. These items were adapted from existing literature. Specifically, the items used to assess safety behaviour were based on the work of Hayes et al. (1998). The items were sourced from

studies by Sexton et al. (2006) for safety attitudes. Safety training items were derived from Grau et al. (2002). In addressing safety knowledge, the measurement items were adapted from Vinodkumar and Bhasi (2010). All constructs were assessed using a five-point Likert scale, ranging from (1) “Strongly Disagree” to (5) “Strongly Agree.”

### Sampling and Data Collection

This study applied multi-stage sampling, combining two probability sampling approaches and one non-probability sampling approach: cluster sampling, simple random sampling, and convenient sampling.

First, the SME manufacturing firms in Selangor state were clustered into four regions: North, South, East, and West. An estimated 95 SME manufacturing firms in Selangor were compiled using information from the Yellow Pages and Google Maps official website, and each company was categorised based on its location in one of the four regions. Therefore, there are twenty-three firms in North Selangor, thirty-five in South Selangor, seventeen in East Selangor and twenty in West Selangor.

After clustering the geographical area in the Selangor state into four categories, the firms were randomly selected using the ballot box. The firms picked from the ballot box were selected for data collection. The researcher selected 32 firms, eight firms in each region. Then, the researcher contacted the company supervisor to ask permission to distribute the questionnaire to the employees.

At last, convenient sampling was used to select the respondents from each chosen firm. The researcher chose operatives from the firms. The number of operatives selected from each firm was determined according to the company’s size based on observations made on the day of data collection. However, regardless of size, a minimum of 5 operatives was selected from each firm. Selecting at least five operatives from each firm with a total of 160 could represent the minimum sample size of 108, which is considered adequate for most research purposes. Figure 1 exhibits the flow chart of the sampling procedures of this study.

The survey was conducted using an electronic questionnaire via Google Forms, and the respondents were requested to fill in the Google Forms using the electronic devices provided by the researcher. The sample size was determined by considering the number of predictors and the required analytical power. Following the guidelines

by Gefen et al. (2011), the study employed parameters of 80% power, a medium effect size, and a significance level of 0.05, resulting in a minimum required sample size of 108. However, the researchers successfully gathered data from 160 respondents, surpassing the minimum requirement. Therefore, the sample size in this study is considered adequate.

The descriptive analysis revealed that 65.6% of the respondents were male, while 34.4% were female. Most of the participants were aged between 36 and 55. In terms of ethnicity, Bumiputera made up the largest group, accounting for 62.5% of the respondents. Marital status analysis showed that 71.9% were married, while 28.1% were single. Additionally, Table 1 highlights that many respondents had SPM-level academic

Table 1  
*Demographic profiles of respondents*

Characteristics	Category	Frequency (n = 160)	Percentage %
Gender	Male	105	35.0
	Female	55	51.7
Age	18–35 years	32	20.0
	36–55 years	106	66.3
	Above 55 years	22	13.7
Race	Bumiputera	100	62.5
	Non-Bumiputera	60	37.5
Marital Status	Married	115	71.9
	Single	45	28.1
Academic Qualifications	SPM	117	73.1
	STPM	43	26.9
Working experience	Less than 5 years	33	20.6
	5–10 years	60	37.5
	11–15 years	28	17.5
	16–20 years	21	13.1
	Above 20 years	18	11.2

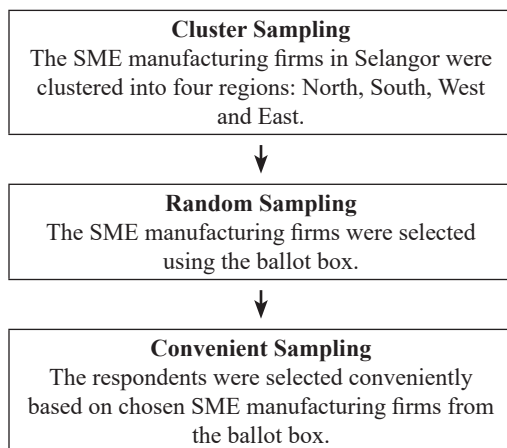


Figure 1. Sampling procedures  
Source: Authors’ work

qualifications and between 5 and 10 years of work experience.

**RESULTS**

The main objective of this research was to examine the relationships among the variables outlined in the study’s research framework. The data gathered for this study were analysed using Smart-PLS version 4 software. Following a two-stage approach, as Hair et al. (2019) recommended, the analysis began with assessing the measurement model to ensure both convergent and discriminant validity. Subsequently, the structural model was evaluated by applying the bootstrapping method, with a resampling rate of 10,000 iterations (Hair et al., 2019).

**Measurement Model**

It is essential to confirm both convergent and discriminant validity to ensure the reliability and accuracy of the measurement model. Convergent validity is established when the outer loadings reach at least 0.708, the Average Variance Extracted (AVE) is 0.5 or higher, and the composite reliability (CR) is at least 0.7, as outlined by Hair et al. (2019). As shown in Table 2, the study meets the criteria for convergent validity, with outer loadings, AVE, and CR values exceeding the required thresholds. Once this condition was satisfied, the discriminant validity of the model was assessed.

According to Franke and Sarstedt (2019), discriminant validity is confirmed when the Heterotrait-Monotrait (HTMT) ratios are below 0.85. As presented in Table 3, all HTMT values were below the 0.85

threshold, affirming that the study meets the HTMT criterion. The findings from this study confirm that the model exhibits

Table 2  
*Convergent validity*

Construct	Indicator	Outer Loading	CR	AVE
SA	SA1	0.785	0.763	0.652
	SA2	0.772		
	SA3	0.738		
	SA5	0.749		
SB	SB2	0.812	0.831	0.695
	SB3	0.821		
	SB5	0.833		
	SB6	0.764		
SK	SB7	0.855	0.754	0.782
	SK1	0.827		
	SK2	0.833		
	SK3	0.784		
ST	SK4	0.815	0.884	0.716
	ST1	0.781		
	ST3	0.794		
	ST4	0.821		
	ST5	0.844		

*Note.* SA = Safety attitude, SB = Safety behaviour, SK = Safety knowledge, ST = Safety training  
Indicators SA4, SB1, SK5 and ST2 were removed due to less than 0.708

*Source:* Author’s work

Table 3  
*Heterotrait-Monotrait (HTMT)*

	SA	SB	SK	ST
SA	-			
SB	0.731	-		
SK	0.765	0.693	-	
ST	0.713	0.638	0.727	-

*Note.* SA = Safety attitude, SB = Safety behaviour, SK = Safety knowledge, ST = Safety training

*Source:* Author’s work

sufficient discriminant validity for the constructs and items analysed.

### Structural Model

The next step involved assessing the structural model after a detailed measurement model evaluation. This assessment considered vital aspects such as checking Variance Inflation Factors (VIF) to ensure no collinearity among the constructs. Additionally, the significance of path coefficients, the explained variance ( $R^2$ ), effect size ( $f^2$ ), and predictive relevance ( $Q^2$ ) were evaluated, in line with the guidelines provided by Hair et al. (2019). The hypothesised relationships depicted in Figure 2 were tested using

bootstrapping techniques. Table 4 outlines the VIF values, confirming that all inner VIF values are well below the threshold of 5, thereby indicating no multicollinearity issues within this study.

Table 4  
Collinearity assessment

CONSTRUCT	VIF
SA	2.345
SB	2.107
SK	2.764
ST	2.346

Note. SA = Safety attitude, SB = Safety behaviour, SK = Safety knowledge, ST = Safety training  
Source: Author's work

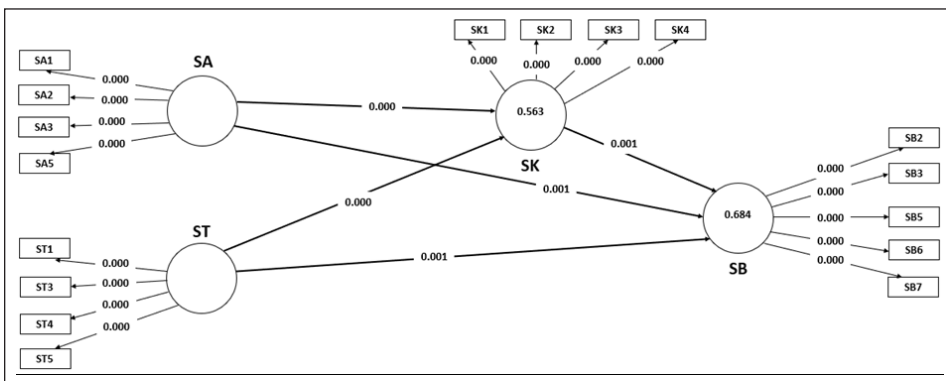


Figure 2. Structural model  
Source: Author's work

Table 5  
Direct path coefficient

Hypothesis	Paths	$\beta$ (Beta)	SE	t- value	p-value	$R^2$	$f^2$	$Q^2$
H1	SA $\rightarrow$ SB	0.362	0.075	4.827	0.001		0.254	
H2	ST $\rightarrow$ SB	0.286	0.069	4.144	0.001	0.684	0.338	0.325
H3	SK $\rightarrow$ SB	0.396	0.083	4.771	0.001		0.342	
H4	SA $\rightarrow$ SK	0.397	0.061	6.508	0.000		0.369	
H5	ST $\rightarrow$ SK	0.442	0.064	6.906	0.000	0.563	0.357	0.321

Note. SA = Safety attitude, SB = Safety behaviour, SK = Safety knowledge, ST = Safety training  
Source: Author's work



Table 5 provides a comprehensive overview of the path coefficient analysis, shedding light on the intricate relationships between several key variables. This model explores five distinct hypotheses, labelled H1 through H5, involving four primary variables: SA, SB, ST, and SK. The analysis aims to uncover the strength and significance of these relationships, offering valuable insights into the underlying structure of the data.

The first three hypotheses (H1, H2, and H3) converge on SB as the dependent variable, examining how SA, ST, and SK influence it. The results reveal that all three variables have significant positive effects on SB, with SK showing the strongest influence ( $\beta = 0.396$ ), followed closely by SA ( $\beta = 0.362$ ), and then ST ( $\beta = 0.286$ ). The statistical significance of these relationships is underscored by their low p-values (all at 0.001), indicating a high degree of confidence in these findings.

Interestingly, the model also explores the factors influencing SK through hypotheses H4 and H5. SA and ST demonstrate strong positive effects on SK, with ST exhibiting a slightly stronger influence ( $\beta = 0.442$ ) compared to SA ( $\beta = 0.397$ ). These relationships are even more statistically significant, with p-values of 0.000, suggesting

an extremely low probability that these results occurred by chance.

The effect sizes ( $f^2$ ) for all paths range from medium to large, with values between 0.254 and 0.369. It indicates that each construct contributes substantially to explaining the variance in its respective dependent variable. The largest effect sizes are observed for the paths leading to SK (H4 and H5), suggesting that SA and ST are particularly important predictors of SK.

The model's overall explanatory power is impressive, especially for SB. The  $R^2$  value of 0.684 indicates that SA, ST, and SK collectively explain 68.4% of the variance in SB, which is substantial. Similarly, for SK, the  $R^2$  value of 0.563 suggests that SA and ST account for 56.3% of its variance, also a noteworthy explanatory power. Moreover, the model demonstrates good predictive relevance, as evidenced by the  $Q^2$  values (0.325 for SB and 0.321 for SK). These positive  $Q^2$  values indicate that the model has predictive power and can accurately estimate data points.

Additionally, Figure 2 and Table 6 show the indirect effect of safety attitude and safety training through safety knowledge. Based on the findings, safety knowledge has significantly mediated safety attitudes and safety training on safety behaviour.

Table 6  
Mediating path coefficient

Hypothesis	Path	$\beta$ (Beta)	SE	t - value	p-value	Confidence Interval	
						LL	UL
H6	SA → SK → SB	0.475	0.061	7.787	0.000	0.025	0.078
H7	ST → SK → SB	0.532	0.072	7.389	0.000	0.028	0.085

Note. SA = Safety attitude, SB = Safety behaviour, SK = Safety knowledge, ST = Safety training  
Source: Author's work

## DISCUSSION

This study comprehensively examined the relationships between safety attitude, safety training, safety knowledge, and safety behaviour, with significant findings contributing to understanding workplace safety. First, it was established that safety attitude significantly influences safety behaviour, consistent with prior research (Basahel, 2020; Li et al., 2019; Rau et al., 2018). This relationship is particularly noteworthy in the Malaysian context, where higher occupational accident rates prevail. The study highlights the importance of a disciplined approach to task management, as frustration and poor planning can cloud judgment and increase the risk of unsafe behaviour, thereby affirming the significant impact of a positive safety attitude on safety behaviour.

Similarly, the study found that safety training plays a crucial role in shaping safety behaviour, aligning with the findings of Bae et al. (2021), Barati Jozan et al. (2023) and Hussain et al. (2020). It was observed that improper machinery operation, particularly at unsafe speeds, primarily contributes to occupational accidents. It underscores the importance of effective safety training in promoting adherence to safety protocols and reducing risky behaviours, particularly in environments with low supervision, thereby supporting the study's second hypothesis.

The study revealed that safety knowledge significantly influences safety behaviour, a finding consistent with previous research (Duryan et al., 2020; Huang et al., 2019; Saini et al., 2023). Safety knowledge, which involves understanding safety principles

and practices, was identified as a critical predictor of safety behaviour, further validating the study's hypothesis.

The fourth hypothesis found that safety attitude positively impacts safety knowledge, consistent with previous studies (Basahel, 2020; Saini et al., 2023). A positive safety attitude fosters a proactive approach to acquiring and applying safety knowledge, which, in turn, enhances overall safety behaviour. This finding underscores the importance of emotional stability and a positive mindset in promoting safety knowledge and behaviour.

Moreover, the study identified a positive correlation between safety training and safety knowledge, corroborating the research of Albert and Routh (2021), Awolusi et al. (2018), and Hussain et al. (2020). Effective safety training enhances situational awareness and selective attention, particularly in multitasking environments like manufacturing, where distractions can compromise safety. This relationship supports the study's fifth hypothesis.

Finally, the mediating role of safety knowledge in the relationships between safety attitude, safety training, and safety behaviour was confirmed. Safety knowledge serves as a critical intermediary, translating positive safety attitudes and effective safety training into tangible safe practices in the workplace. Without this mediation, the impact of safety attitude and training on behaviour may be diminished. Therefore, the study strongly supports the hypothesis that safety knowledge mediates these relationships, ensuring that safety behaviour is consistently observed in the workplace.

## CONCLUSION

In conclusion, this study comprehensively examines the factors influencing safety knowledge and safety behaviour within small and medium enterprises (SMEs) in the Malaysian manufacturing sector. The findings highlight that positive employee safety attitudes, focused training programs, and broad safety knowledge are critical determinants of safety behaviour. SMEs, which often face unique challenges such as resource constraints and lack of technical expertise, can significantly benefit from prioritising these factors to enhance their safety culture and mitigate workplace hazards. SMEs can strengthen their capacity for long-term occupational accident prevention by adopting an evidence-based approach that synthesises these determinants. Enhanced safety knowledge not only safeguards employee welfare but also catalyses improvements in productivity, innovation, stakeholder confidence, and overall competitiveness. This study extends the theoretical understanding of safety knowledge in underexplored contexts and offers practical insights for SMEs to enhance their safety practices systematically. Future research should continue to explore the dynamic interplay of these factors and their impact on firm performance to advance the field of safety management.

### Implication of the Study

The study reinforces existing frameworks on safety attitude, training, knowledge, and behaviour, confirming safety knowledge's mediating role in workplace

safety outcomes. This study also offers contributions for various stakeholders. For operatives and firms, it emphasises the need for comprehensive safety training programs that impart technical knowledge and foster a positive safety attitude. The research highlights the importance of enhancing workers' situational awareness and selective attention, especially in high-risk environments. It also stresses creating a workplace culture that promotes emotional stability and a positive mindset. Firms are encouraged to tailor their safety initiatives to maximise the benefits of training and positive attitudes toward safety behaviours.

Safety governing bodies can use the study's evidence-based insights to guide the development of safety standards and regulations. The research emphasises the importance of integrating knowledge-building and attitude-shaping components in safety guidelines. It suggests focusing on comprehensive safety programs that address both technical skills and psychological factors.

The study offers data-driven support for occupational safety policymaking for governments, particularly in developing countries like Malaysia. It highlights the need for legislation mandating holistic safety training programs in high-risk industries. The research suggests allocating resources for nationwide safety awareness campaigns that target both knowledge enhancement and attitude improvement. It also emphasises the importance of creating policies that encourage companies to invest in safety culture development.

## Limitations and Recommendations for Future Research

This study, while comprehensive, has certain limitations that warrant consideration. One notable limitation is the focus on SMEs within the Malaysian manufacturing sector, which may limit the generalizability of the findings to other sectors or regions. Future research could expand the scope to include SMEs from various industries and geographical locations to provide a more holistic understanding of the factors influencing safety knowledge. Additionally, the study's cross-sectional nature limits the ability to draw causal inferences. Longitudinal studies could be conducted to examine how changes in safety attitudes, training, and procedures over time impact safety knowledge and workplace safety outcomes.

Moreover, this study primarily relies on self-reported data, which may be subject to response biases. Future research could incorporate objective measures of safety knowledge and performance to validate the self-reported data. Additionally, investigating the interaction effects of different factors influencing safety knowledge could provide deeper insights into how these factors collectively impact safety outcomes. Further studies could also explore the mediating and moderating variables that influence the relationship between safety knowledge and organisational performance, thereby offering a more nuanced understanding of the underlying mechanisms at play.

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## REFERENCES

- Abdullah, M. S., Othman, Y. H., Osman, A., & Salahudin, S. N. (2016). Safety culture behaviour in electronics manufacturing sector (EMS) in Malaysia: The case of flextronics. *Procedia Economics and Finance*, 35, 454-461. [https://doi.org/10.1016/S2212-5671\(16\)00056-3](https://doi.org/10.1016/S2212-5671(16)00056-3)
- Albert, L., & Routh, C. (2021). Designing impactful construction safety training interventions. *Safety*, 7(2), 42. <https://doi.org/10.3390/safety7020042>
- Awolusi, I., Marks, E., & Hallowell, M. (2018). Wearable technology for personalised construction safety monitoring and trending: Review of applicable devices. *Automation in Construction*, 85, 96-106. <https://doi.org/10.1016/j.autcon.2017.10.010>
- Bae, H., Simmons, D. R., & Polmear, M. (2021). Promoting the quarry workers' hazard identification through formal and informal safety training. *Safety and Health at Work*, 12(3), 317-323. <https://doi.org/10.1016/j.shaw.2021.02.003>
- Barati Jozan, M. M., Ghorbani, B. D., Khalid, M. S., Lotfata, A., & Tabesh, H. (2023). Impact assessment of e-trainings in occupational safety and health: A literature review. *BMC Public Health*, 23(1), 1187. <https://doi.org/10.1186/s12889-023-16114-8>

- Basahel, A. M. (2021). Safety leadership, safety attitude, safety knowledge and motivation toward safety-related behaviours in electrical substation construction projects. *International Journal of Environmental Research and Public Health*, 18(8), 4196. <https://doi.org/10.3390/ijerph18084196>
- Che Huei, L., Ya-Wen, L., Chiu Ming, Y., Li Chen, H., Jong Yi, W., & Ming Hung, L. (2020). Occupational health and safety hazards faced by healthcare professionals in Taiwan: A systematic review of risk factors and control strategies. *SAGE Open Medicine*, 8, 2050312120918999. <https://doi.org/10.1177/2050312120918999>
- Department of Occupational Safety and Health. (2022). *Occupational accidents statistics by sector until 2022*. Retrieved November 28, 2022, from <http://www.dosh.gov.my/index.php/en/occupational-accident-statistics/by-sector>.
- Department of Statistics Malaysia, (2022). *Official Portal*. Retrieved November 28, 2022, from The Source of Malaysia's Official Statistics: <https://www.dosm.gov.my/v1>
- Duryan, M., Smyth, H., Roberts, A., Rowlinson, S., & Sherratt, F. (2020). Knowledge transfer for occupational health and safety: Cultivating health and safety learning culture in construction firms. *Accident Analysis & Prevention*, 139, 105496. <https://doi.org/10.1016/j.aap.2020.105496>
- Franke, G., & Sarstedt, M. (2019). Heuristics versus statistics in discriminant validity testing: A comparison of four procedures. *Internet Research*, 29(3), 430-447. <https://doi.org/10.1108/intr-12-2017-0515>
- Gefen, D., Rigdon, E. E., & Straub, D. (2011). An update and extension to SEM guidelines for administrative and social science research. *MIS Quarterly*, 35(2), 3-14. <https://doi.org/10.2307/23044042>
- Grau, R., Martínez, I. M., Agut, S., & Salanova, M. (2002). Safety attitudes and their relationship to safety training and generalised self-efficacy. *International Journal of Occupational Safety and Ergonomics*, 8(1), 23-35. <https://doi.org/10.1080/10803548.2002.11076512>
- Griffin, M. A., & Neal, A. (2000). Perceptions of safety at work: A framework for linking safety climate to safety performance, knowledge, and motivation. *Journal of Occupational Health Psychology*, 5(3), 347. <https://doi.org/10.1037/1076-8998.5.3.347>
- Guo, B. H., Yiu, T. W., & González, V. A. (2016). Predicting safety behaviour in the construction industry: Development and test of an integrative model. *Safety Science*, 84, 1-11. <https://doi.org/10.1016/j.ssci.2015.11.020>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24. <https://doi.org/10.1108/EBR-11-2018-0203>.
- Hassan, Z., Subramaniam, C., Zin, M. L. M., Shamsudin, F. M., & Ramalu, S. S. (2019). The connection between safety compliance behaviour, safety communication and safety standard and procedure: An investigation among workers in Malaysian SME'S. *Academy of Entrepreneurship Journal*, 25(Special Issue 2), 1-11.
- Hayes, B. E., Perander, J., Smecko, T., & Trask, J. (1998). Measuring perceptions of workplace safety: Development and validation of the work safety scale. *Journal of Safety Research*, 29(3), 145-161. [https://doi.org/10.1016/S0022-4375\(98\)00011-5](https://doi.org/10.1016/S0022-4375(98)00011-5)
- Hou, Y., Khokhar, M., Khan, M., Islam, T., & Haider, I. (2021). Put safety first: Exploring the role of health and safety practices in improving the performance of SMEs. *SAGE*

- Open*, 11(3), 21582440211032173. <https://doi.org/10.1177/21582440211032173>
- Hu, X., Yan, H., Casey, T., & Wu, C. H. (2021). Creating a safe haven during the crisis: How organisations can achieve deep compliance with COVID-19 safety measures in the hospitality industry. *International Journal of Hospitality Management*, 92, 102662. <https://doi.org/10.1016/j.ijhm.2020.102662>
- Huang, Y. H., & Yang, T. R. (2019). Exploring on-site safety knowledge transfer in the construction industry. *Sustainability*, 11(22), 6426. <https://doi.org/10.3390/su11226426>
- Hussain, R., Pedro, A., Lee, D. Y., Pham, H. C., & Park, C. S. (2020). Impact of safety training and interventions on training-transfer: Targeting migrant construction workers. *International Journal of Occupational Safety and Ergonomics*, 26(2), 272-284. <https://doi.org/10.1080/10803548.2018.1465671>
- Ji, M., Liu, B., Li, H., Yang, S., & Li, Y. (2019). The effects of safety attitude and safety climate on flight attendants' proactive personality with regard to safety behaviours. *Journal of Air Transport Management*, 78, 80-86. <https://doi.org/10.1016/j.jairtraman.2019.05.003>
- Kao, K. Y., Spitzmueller, C., Cigularov, K., & Thomas, C. L. (2019). Linking safety knowledge to safety behaviours: A moderated mediation of supervisor and worker safety attitudes. *European Journal of Work and Organizational Psychology*, 28(2), 206-220. <https://doi.org/10.1080/1359432X.2019.1567492>
- Li, S., Wu, X., Wang, X., & Hu, S. (2020). Relationship between social capital, safety competency, and safety behaviours of construction workers. *Journal of Construction Engineering and Management*, 146(6), 04020059. [https://doi.org/10.1061/\(ASCE\)CO.1943-7862.0001838](https://doi.org/10.1061/(ASCE)CO.1943-7862.0001838)
- Li, Y., Wu, X., Luo, X., Gao, J., & Yin, W. (2019). Impact of safety attitude on the safety behaviour of coal miners in China. *Sustainability*, 11(22), 6382. <https://doi.org/10.3390/su11226382>
- Loosemore, M., & Malouf, N. (2019). Safety training and positive safety attitude formation in the Australian construction industry. *Safety Science*, 113, 233-243. <https://doi.org/10.1016/j.ssci.2018.11.029>
- Lyson, H. C., Ackerman, S., Lyles, C., Schillinger, D., Williams, P., Gourley, G., Gupta, R., Handley, M., & Sarkar, U. (2019). Redesigning primary care in the safety net: A qualitative analysis of team-based care implementation. *Healthcare*, 7(1), 22-29. <https://doi.org/10.1016/j.hjdsi.2018.09.004>
- Maliha, G., Gerke, S., Cohen, I. G., & Parikh, R. B. (2021). Artificial intelligence and liability in medicine: Balancing safety and innovation. *The Milbank Quarterly*, 99(3), 629. <https://doi.org/10.1111/1468-0009.12504>
- Newaz, M. T., Davis, P., Jefferies, M., & Pillay, M. (2019). The psychological contract: A missing link between safety climate and safety behaviour on construction sites. *Safety Science*, 112, 9-17. <https://doi.org/10.1016/j.ssci.2018.10.002>
- Pamidimukkala, A., & Kermanshachi, S. (2021). Impact of Covid-19 on field and office workforce in construction industry. *Project Leadership and Society*, 2, 100018. <https://doi.org/10.1016/j.plas.2021.100018>
- Rau, P. L. P., Liao, P. C., Guo, Z., Zheng, J., & Jing, B. (2018). Personality factors and safety attitudes predict safety behaviour and accidents in elevator workers. *International Journal of Occupational Safety and Ergonomics*, 26(4), 719-727. <https://doi.org/10.1080/10803548.2018.1493259>
- Rezaei, R., & Jamshidi, N. (2019). Factors affecting the wheat farmers' safety behavior in the central district of the Zanjan Township. *Iranian Journal of Agricultural Economics & Development Research*, 50(4), 819-831.

- Saini, S., Assim, M. I. S. A., Marzuki, O. F., & Yaccob, Y. (2023). Mediating effect of safety knowledge on the relationship between safety competency and safety attitude among oil and gas on-shore contractor workers in Bintulu, Sarawak. *International Journal of Academic Research in Business and Social Sciences*, 13(15), 307-323. <https://doi.org/10.6007/IJARBS/v13-i15/18788>
- Santi, R., Purbudi, W., & Dyah, S. (2020). The effect of safety training and workers involvement on safety compliance with safety knowledge as a mediation variables. *Russian Journal of Agricultural and Socio-Economic Sciences*, 107(11), 239-246. <https://doi.org/10.18551/rjoas.2020-11.28>
- Schwartz, S. P., Adair, K. C., Bae, J., Rehder, K. J., Shanafelt, T. D., Profit, J., & Sexton, J. B. (2019). Work-life balance behaviours cluster in work settings and relate to burnout and safety culture: A cross-sectional survey analysis. *BMJ Quality & Safety*, 28(2), 142-150. <https://doi.org/10.1136/bmjqs-2018-007933>
- Seo, H. -C., Lee, Y. -S., Kim, J. -J., & Jee, N. -Y. (2015). Analysing safety behaviours of temporary construction workers using structural equation modeling. *Safety Science*, 77, 160-168. <https://doi.org/10.1016/j.ssci.2015.03.010>
- Sexton, J. B., Helmreich, R. L., Neilands, T. B., Rowan, K., Vella, K., Boyden, J., Roberts, P. R., & Thomas, E. J. (2006). The safety attitudes questionnaire: Psychometric properties, benchmarking data, and emerging research. *BMC Health Services Research*, 6, 1-10. <https://doi.org/10.1186/1472-6963-6-44>
- Simanjuntak, R. S., Ginting, C. N., & Nasution, A. N. (2023). factors related to unsafe behaviour among construction workers: An update literature review. *Jurnal Aisyah: Jurnal Ilmu Kesehatan*, 8(3), 1151-1158. <https://doi.org/10.30604/jika.v8i3.2039>
- Sugumaran, B., Abdullah, M. S., Hadi, A., & Manaf, A. (2017). Safety compliance behaviour in manufacturing industry: A Malaysian perspective. *Saudi Journal of Humanities and Social Sciences*, 2(1), 66-73.
- Tadesse, T., & Zawdie, B. (2019). Non-compliance and associated factors against smoke-free legislation among health care staffs in governmental hospitals in Addis Ababa, Ethiopia: An observational cross-sectional study. *BMC Public Health*, 19(1), 1-11. <https://doi.org/10.1186/s12889-019-6407-z>
- Vinodkumar, M. N., & Bhasi, M. (2010). Safety management practices and safety behaviour: Assessing the mediating role of safety knowledge and motivation. *Accident Analysis & Prevention*, 42(6), 2082-2093. <https://doi.org/10.1016/j.aap.2010.06.021>
- Wöll, V., & Sulíková, R. (2022). Current usage of models and methods to prevent unsafe behaviour of employees in industrial firms. In M. Greguš & N. Kryvinska (Eds.), *Developments in information & knowledge management for business applications* (Volume 4, pp. 581-598). Cham: Springer International Publishing. [https://doi.org/10.1007/978-3-030-95813-8\\_24](https://doi.org/10.1007/978-3-030-95813-8_24)
- Zulkifly, S. S. (2020). Safety leadership and its effect on safety knowledge-attitude-behaviour (KAB) of Malaysian manufacturing workers. *International Journal of Solid State Technology*, 63(3), 217-229. <https://doi.org/10.20944/preprints202106.0527.v1>





# From Classroom to Screen: Examining Academic Achievement in Indonesian Students' Transition to Online Learning in Pre- and Post-pandemic

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## ABSTRACT

The COVID-19 pandemic posed an unprecedented challenge to the education system, requiring rapid adaptation to online learning. This study investigates how sustainable educational innovations

facilitated this transition and supported student learning outcomes. The academic performance of 321 Indonesian university students from various fields was analyzed in online and offline learning environments. Findings revealed a notable improvement in GPA scores of 2.75 or lower in online settings compared to offline learning, while no significant differences were observed for higher GPA ranges. Students reported that online learning was more understandable, offered readily available multimodal resources, and provided additional learning time. Additionally,

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they felt that online learning enhanced academic success and promoted self-directed learning. This study highlights the critical role of online tools in sustaining academic continuity and addressing global educational challenges by offering adaptable educational frameworks. These insights can guide policymakers and educators in leveraging digital innovations to ensure uninterrupted learning experiences and ensuring academic continuity.

*Keywords:* Academic achievement, Indonesian University Students, online and offline learning

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## INTRODUCTION

The COVID-19 pandemic has presented an unprecedented global challenge, drastically altering various aspects of life, including the education sector. The sudden shift from traditional classroom settings to online learning has tested the resilience and adaptability of educational systems worldwide. Nearly all educational bodies, from elementary schools to universities, have adopted this learning approach in response to the shutdown of schools and campuses. In early April 2020, these closures impacted approximately 1.6 billion learners from 194 nations (accounting for over 90% of all enrolled students) (UNESCO, 2020). Online learning was implemented as a substitute to maintain student engagement and prevent educational setbacks, highlighting the magnitude of the shift toward digital education. Sustainable innovation in educational technology has been crucial in addressing the challenges posed by the sudden shift to online learning. Innovative teaching methods and digital

tools have enabled educators to deliver lessons remotely, ensuring that students continue their education despite the disruptions.

Amid this transition, concerns about students' academic performance in online learning environments have surfaced, prompting extensive research into its effectiveness. Various studies (e.g., Cheise, 2023; El Takach, 2022; Kim et al., 2020; Lederman, 2021; Mothibi, 2015; Orlov et al., 2021; Spitzer & Musslick, 2021) have sought to determine the impact of online learning on student achievement. While some studies (e.g., Cheise, 2023; El Takach, 2022; Kim et al., 2020; Lederman, 2021; Orlov et al., 2021) have reported a decline in academic performance in online learning compared to traditional in-person settings, others (e.g., Mothibi, 2015; Spitzer & Musslick, 2021; Wang & Tafazoli, 2019) have found evidence to the contrary. Mothibi (2015), for instance, conducted a meta-analysis indicating a positive correlation between e-learning and academic achievement in higher education, highlighting the potential benefits of digital education. Similarly, Spitzer and Musslick (2021) observed improved academic outcomes among K-12 students in an online mathematics learning environment, suggesting that online learning can address educational disparities and enhance academic success.

Despite these divergent findings, a consensus on the impact of online learning on academic performance remains elusive. Therefore, there is a pressing need for further research to provide comprehensive evidence regarding the effectiveness of online learning. This research article aims

to contribute to this discourse by examining students' academic performance and perceptions of academic success in online learning environments, thereby informing sustainable innovation in education amid global challenges. The specific problem preceding this study is the pressing need to address the disparities in academic achievement between offline and online learning environments, particularly among Indonesian university students. Despite the widespread adoption of online learning as a response to school and campus closures, there is a lack of comprehensive understanding regarding its effectiveness in facilitating academic success in the Indonesian context. Existing research on the subject has yielded conflicting findings, with some studies suggesting a decline in academic performance in online learning settings compared to traditional in-person classrooms, while others report positive outcomes. This difference emphasizes the necessity for additional research to clarify the factors influencing academic achievement in online learning environments among Indonesian students.

Thus, this research article aims to contribute to this discourse or fill this gap by examining students' academic performance and perceptions of academic success in online learning environments. Specifically, it seeks to address the disparities or differences in academic achievement between offline and online learning environments, focusing on Indonesian university students. This study aims to offer valuable insights into the unique challenges and opportunities presented by online learning in the Indonesian educational context by conducting a comprehensive

analysis. Ultimately, it aims to provide insights to inform evidence-based strategies for addressing disparities in academic achievement and promoting sustainable innovation in education amidst global challenges.

## LITERATURE REVIEW

The rise of online learning has prompted numerous investigations into its effects on students' academic performance. Nadeak (2020) studied the efficacy of distance learning through social media platforms during the COVID-19 pandemic among students at Universitas Kristen Indonesia. The research findings suggested that while distance learning using social media is effective for theoretical and practical courses, it is less effective for practical courses and fieldwork. Specifically, platforms like Facebook, Instagram, and YouTube were found to be less conducive for remote learning in certain course types.

In another investigation by Hakim et al. (2023), they examined the influence of online learning on learning outcomes in Indonesian subjects. The results indicated that student performance in Indonesian classes improved more significantly after offline learning compared to online learning. It suggests that the impact of online learning on learning outcomes in Indonesian subjects is more pronounced following the implementation of offline learning, particularly for students in Indonesian Class IV at SD Negeri 1 Bonto-Bonto, Pangkep Regency.

Guan et al. (2021), on the other hand, explored the influence of online learning on college students in China during the

COVID-19 pandemic. Their research indicated that online learning negatively affected academic performance, particularly among students with lower self-regulated learning strategies and motivation. They proposed that enhancing support and training for self-regulated learning could potentially boost student performance in online learning settings.

Phan et al. (2021) analyzed the correlation between online learning and academic performance among high school students in Vietnam in a separate study. They discovered that students engaged in online learning achieved higher academic performance than their counterparts who did not participate in online learning. This correlation was influenced by the students' perceived enjoyment of online learning. The researchers suggested integrating engaging and interactive activities into online courses could enhance student performance and engagement.

Lee and Kim (2020) conducted a study to determine the effects of online learning on the academic performance of undergraduate students in South Korea. They found that students who participated in online courses had slightly lower grades than those who attended in-person courses, but the difference was not statistically significant. They noted that the discrepancy could be partly due to academically motivated students being more likely to opt for in-person courses, suggesting that online learning might benefit students with lower academic motivation.

On the other hand, Kaur and Mahal (2021) carried out a study on the impact of

online learning on the academic performance of college students in India. Their research showed a positive influence of online learning on student performance, especially benefiting those with higher academic abilities and greater tendencies for self-directed learning. They recommended enhancing support for less self-directed students and promoting increased interaction and collaboration in online courses to improve student performance.

It emphasizes the crucial role of educators in effectively harnessing technology while comprehending the intricate dynamics of online learning environments to maximize student achievements (Downes, 2005; Siemens, 2005). As the educational landscape evolves, educators must adeptly integrate various digital tools and platforms into their teaching methodologies (Hakim et al., 2023; Nadeak, 2020). By embracing innovative technological solutions and leveraging them to facilitate engaging and interactive learning experiences, educators can empower students to navigate the complexities of online learning effectively. Additionally, educators need to be mindful of their students' diverse needs and learning styles, adapting their instructional approaches accordingly to foster an inclusive and supportive online learning environment. Ultimately, by embracing technology strategically and fostering a deep understanding of online learning dynamics, educators can enhance student engagement, facilitate knowledge acquisition, and ultimately optimize student outcomes in the digital age.

From a theoretical perspective, enhancing students' academic performance through online learning is based on the idea that students have access to a plethora of resources in the online environment. It aligns with the outcomes proposed by connectivist theorists in virtual learning scenarios. Siemens (2005) posited that, from a connectivist viewpoint, learning is not an isolated process but a distributed phenomenon across decentralized digital networks. Students actively navigate these networks to access diverse knowledge flows, and learning involves navigating and expanding these connections. Downes (2005) emphasized the importance of participation, collaboration, and leveraging technology's capabilities for real-time understanding of co-construction, presenting a conceptualization of student success within the context of connectivist learning theory. This theory is shaped by autonomy, diversity, openness, and interactivity, reflecting the dynamic nature of information in the digital age.

In connectivism, technology is a crucial element, acting as the conduit through which learners interact with information and each other. The fusion of social media, collaborative tools, and learning management systems cultivates a favorable digital environment for connectivist learning. Integrating technology in e-learning allows learners to delve into a variety of perspectives and engage in significant interactions, extending the learning experience beyond conventional boundaries. While connectivist theorists advocate the potential of online

learning, existing research suggests that several factors may influence its impact on student academic achievement. These factors encompass students' motivation, self-regulated learning strategies, and their perceived enjoyment of online learning. As a result, additional research is needed to comprehensively examine the correlation between online learning and academic success. Additionally, collaborative online learning theory suggests that meaningful interactions and collaboration among students foster deeper understanding and knowledge construction (Dillenbourg, 1999). This perspective emphasizes the significance of social interaction and collaborative activities in online learning environments, further enhancing student engagement and learning outcomes. Nevertheless, it is crucial to acknowledge the existing gaps in research, particularly concerning the effectiveness of online learning across diverse global contexts. Students may exhibit unique characteristics that can impact the outcomes of such studies, highlighting the need for further investigation. In the Indonesian context, where our study is situated, distinct contextual factors exist compared to previous research settings. These differences necessitate additional investigation to validate findings from other contexts and provide insights specific to Indonesia. Specifically, previous studies have overlooked empirical issues such as the varied contexts and the frequency of digital learning modes, which are crucial for comprehensively understanding online education's effectiveness.

In response to these gaps, our research aims to investigate the effectiveness of online learning while tackling the disparities in academic performance between offline and online learning environments, particularly among Indonesian university students. This study will be conducted within the Indonesian context, considering the diverse characteristics and learning environments prevalent in the country. Indonesia's unique context necessitates further research to validate previously explored areas that differ from previous studies' settings.

## **METHODS**

### **Research Design**

This research utilized a dual approach of 'analyzing existing datasets' (Muijs, 2004) or 'secondary data analysis' (Donnellan & Lucas, 2013), a non-experimental design where the data were readily available through university administrator access, and conducting 'surveys' (Creswell & Creswell, 2023; Muijs, 2004) to explore the effects of different learning modes. The dataset included the grade point averages (GPA) of undergraduate students from all academic programs at a private university in Indonesia, capturing both the pre-COVID-19 offline learning period and the online learning period induced by the COVID-19 pandemic. Simultaneously, surveys were carried out to collect student perspectives on their experiences with online learning and its relationship with their academic achievements.

### **Participants of the Study**

The research included students from English Literature, Public Administration, Psychology, and Industrial Engineering registered for the 2018 academic year. The participants, 60% female and 40% male were in the third year of study. They were from various parts of Indonesia (i.e., Bali, Kalimantan, Sulawesi), with Javanese as the dominant ethnic group and were considered low to middle socioeconomic status (12.000.000–36.000.000 IDR per annum). The participants were randomly selected based on their familiarity with traditional classroom learning and online instruction, guaranteeing they had experience with both teaching and learning modes. Furthermore, the participants were chosen from a variety of departments within the university, taking into account the possible differences in student attributes across various academic disciplines.

### **Research Instrument**

The resources used in this research included a student grade point averages (GPAs) dataset, which contained GPA data from various academic programs at a university from 2018 to 2022. GPA indicates academic achievement (Choi, 2005; Parker et al., 2004). In addition, open-ended and multiple-choice survey questions were employed to determine whether online learning enhances comprehension of the subject matter and to assess students' views on their academic performance in an online learning environment.

**Data Collection**

The dataset of student GPAs across all academic programs was easily accessible through the university's Management Information System, with access granted to the administration and heads of study programs. The survey was created online using Google Forms and shared with the participating respondents via their WhatsApp Group.

**Data Analysis**

The analysis of quantitative data was performed using SPSS Statistics Version 26. The students' GPAs were gathered and examined using the Paired-sample t-test to determine if there was a notable difference between the two modes of learning—

offline and online (Muijs, 2004; Phakiti, 2014). The qualitative data were analyzed using qualitative analysis techniques such as coding, charting, mapping, and interpretation (Miles et al., 2014).

**RESULTS AND DISCUSSION**

**Academic Performance of Students in Online and Offline Learning Environments**

Evaluating students' academic performance across majors: Public Administration, Industrial Engineering, Psychology, and English Literature during online and offline learning, the GPA is categorized as below or equal to 2.75, between 2.75 and 3.50, and above 3.50. The details are presented in Table 1.

Table 1  
*Students' GPAs in online and offline modes of learning*

Study Mode	Study Program	GPA <= 2.75	GPA 2.75-3.50	GPA > 3.50	Total
		Number of Students	Number of Students	Number of Students	
Offline Semester 2 2019	Public Administration	1	107	81	190
	Industrial Engineering	1	62	74	137
	Psychology	1	174	66	241
	English Literature	1	60	41	102
Offline Semester 1 2020	Public Administration	1	92	97	190
	Industrial Engineering	1	69	67	137
	Psychology	1	179	61	241
	English Literature	0	63	38	101
Online Semester 2 2020	Public Administration	0	82	105	187
	Industrial Engineering	0	70	62	133
	Psychology	1	165	71	237
	English Literature	0	63	38	101
Online Semester 1 2021	Public Administration	0	66	109	175
	Industrial Engineering	0	58	72	130
	Psychology	0	137	95	232
	English Literature	0	58	41	99

As presented in Table 1, the GPAs of students majoring in English Literature, Psychology, Public Administration, and Industrial Engineering exhibit variations between online and offline learning. Few students achieved a GPA of 2.75 or lower, while a considerable number achieved GPAs between 2.75 and 3.50 and above 3.50. During the second semester of 2019 and the first semester of 2020, when learning was conducted offline (prior to the COVID-19 pandemic), the number of students achieving a GPA of 2.75 or lower was predominantly 1 and 0 for the English Literature major. However, during the second semester of 2020 and the first semester of 2021, when learning was conducted online (during the COVID-19 pandemic), the number of students achieving a GPA of 2.75 or lower was mostly 0, except for the Psychology major, which had 1.

A Paired-sample t-test was used for further analysis to determine if the differences in students' GPAs during offline

and online learning were significant. Table 2 presents the results of the Paired samples t-test for those achieving a GPA of 2.75 or lower.

As illustrated in Table 2, the result of the Paired-samples t-test for GPAs of 2.75 or lower yielded a significant value of .014. Given that this value is below the significance level (.05), it indicates a significant difference in GPAs of 2.75 or lower between students studying offline and online modes. The number of students with GPAs of 2.75 or lower decreased significantly during the online learning period.

Furthermore, to determine if the differences in students' GPAs ranging from 2.75 to 3.50 were significant, an additional analysis was carried out using the Paired-samples t-test. The results of this analysis are presented in Table 3, showing the Paired-Samples t-test for GPAs ranging from 2.75 to 3.50.

Table 2  
*Paired-samples t-test for GPAs of 2.75 or lower*

	Mean	Paired Differences				t	df	Sig. (2-tailed)
		Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 OFFLINE-ONLINE	.75000	.28868	.14434	.29065	1.20935	5.196	3	.014

Table 3  
*Paired-samples t-test for GPAs between 2.75 and 3.50*

	Mean	Paired Differences				t	df	Sig. (2-tailed)
		Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 OFFLINE-ONLINE	13.37500	14.00223	7.00112	-8.90568	35.65568	1.910	3	.152



As shown in Table 3, the significance obtained was .152, implying no significant difference in students' GPAs ranging from 2.75 to 3.50 in both online and offline learning modes. The GPAs of students in the four study programs: State Administration, Industrial Engineering, Psychology, and English Literature remained consistent within the 2.75 to 3.50 range.

Additionally, a separate Paired-sample t-test was performed to determine if the differences in students' GPAs above 3.50 were significant. The results of this analysis are presented in Table 4, showing the Paired-samples t-test for GPAs above 3.50.

As demonstrated in Table 4, the result of the Paired-Samples t-test for GPAs greater than 3.50 was not significant, as the significance obtained was .250, which is larger than the significance level (.05). It suggests that the variations in students' GPAs above 3.50 were not significantly different in either the online or offline learning modes. In other words, the fluctuations in students' GPAs above 3.50 were not considerable in both learning modes.

From the above analyses, it was observed that the students' GPAs of 2.75 or lower significantly decreased, indicating that fewer students achieved a GPA of 2.75 or lower during online learning. However,

the students' GPAs of 2.75 to 3.50 and above 3.50 remained relatively stable. Students' GPAs in these two categories did not significantly increase or decrease during online and offline learning. Any variations in the number of students falling into these categories were due to chance, not design. Overall, online and offline learning modes did not influence students' academic achievement in disciplines such as Public Administration, Industrial Engineering, Psychology, and English Literature. Therefore, students' academic achievement was consistent in both learning modes.

Differences in GPAs among study programs underscore the impact of discipline-specific factors, such as variations in course difficulty, grading norms, or student aptitude. Engineering and Public Administration, for instance, consistently exhibit lower GPAs, suggesting that these programs likely involve rigorous coursework, complex concepts, and demanding assessments. In contrast, English literature and Psychology consistently achieve higher GPAs. These disciplines may offer more lenient grading practices or inherently less challenging content. However, it is important to note that our analysis is based on aggregated data; therefore, individual experiences may differ.

Table 4  
Paired-samples t-test for GPAs above 3.50

		Mean	Paired Differences				t	df	Sig. (2-tailed)
			Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	OFFLINE- ONLINE	-8.50000	11.93734	5.96867	-27.49497	10.49497	-1.424	3	.250

The university has integrated Turnitin, a text-matching software, into the E-learning Untag Surabaya (ELITAG) system to address cheating and plagiarism among online class participants. Any assignment submission should include a Turnitin scanned report to minimize such practice. For evaluation involving online tests or assessments, instructors frequently utilized supplementary tools such as smartphones with popular video conferencing platforms like Zoom, Google Meet, or Microsoft Teams. Smartphones, functioning as auxiliary devices, were often used by instructors as cameras to observe students during examinations. These strategies might not fully stop students from practicing plagiarism or cheating, yet these could minimize such practice. In this context, offline and online learning modes allow instructors to maintain control over assessments, ensuring the authenticity of students' work. Thus, students' GPAs in both learning modes were of equivalent quality.

The results of this study challenge the conclusions of previous research that suggested a decline in students' performance when learning online (i.e., Cheise, 2023; El Takach, 2022; Lederman, 2021; Orlov et al., 2021). As reported by El Takach (2022), Lederman (2021) and Orlov et al. (2021), students' academic performance experienced a downturn when they studied online during the COVID-19 pandemic. The decrease in students' performance was reportedly significant. Cheise (2023) argued that students' performance was low in online learning due to the lack of extrinsic factors that support students to perform well.

Contrarily, studies by Spitzer and Musslick (2021) and Mothibi (2015) revealed increased student performance during online learning. Spitzer and Musslick (2021) reported that "students with lower achievement showed greater improvements in performance than high-achieving students." Similarly, a meta-analysis study by Ulum (2021) investigating the effect of online education on academic success showed that the impact of online learning was at a moderate level. Spitzer and Musslick (2021) and Ulum (2021) suggest that online learning effectively enhances students' academic performance. Nguyen (2015) emphasized that the effectiveness of online learning is comparable to traditional classroom learning and depends on its design.

Therefore, it is important to note that learning modes, either online or offline, cannot be used as a predictor or determinant of the effectiveness of students' learning or their academic achievement. Factors that may influence students' outcomes in online learning, as discussed extensively in the literature, include learner characteristics, perceived usefulness, course content, course design, ease of use, and faculty capacity (Choi, 2021; Kira & Saade, 2006; Kraiwanit et al., 2023; Pham et al., 2021).

The findings opposed the connectivist learning theory, which suggests that students' academic performance is attributed to easy access to many resources in the online learning environment. The theory postulates that by having access to numerous resources in online learning, students can learn much

more than what they can do in offline learning. However, in this case, the student's academic performance during online learning was relatively the same as when they were in the offline mode of learning. It suggests that several factors contributed to the student's academic performance besides having access to numerous resources. A more comprehensive approach that integrates various learning theories, such as Behaviorism, Cognitivism, Constructivism, and Connectivism, may be recommended when designing online learning materials. Ally (2008) emphasizes that diverse theories, including behaviorist, cognitivist, and constructivist perspectives, have each contributed uniquely to shaping the design of online educational materials. These theories are expected to continue influencing the creation of learning resources for online environments. Behaviorist approaches are effective for conveying factual knowledge (the "what"), while cognitivist strategies excel in teaching principles and processes (the "how"). Constructivist methods are particularly useful for instilling real-life applications and facilitating contextual learning.

A significant trend involves an increasing emphasis on constructive learning, where learners actively construct meaning from information presented during online sessions. This shift encourages a more participatory and engaging educational experience. Ally (2008) argues for going beyond traditional theories by emphasizing the importance of incorporating connectivism into the development of online

learning. This integration is important as connectivism aligns uniquely with our networked world, offering relevance and effectiveness in online education in today's interconnected society.

Moreover, the research by Hattie and Zeirer (2019) sheds light on the multifaceted factors influencing students' academic achievement. Their study identifies various student-related, home-related, school-related, classroom-related, curricular, teaching, learning, implementation, and teacher-related factors contributing to academic success. These include student-related factors (self-concept, working memory, concentration, persistence, engagement, self-efficacy, gender, boredom), home-related factors (socioeconomic status, home environment, parental involvement), school-related factors (principal, school climate, summer holidays), and classroom-related factors (acceleration, classroom behavior, peer influences, cognitive behavior programs, class size, ability grouping, open vs. traditional). The study also considers curricula, teaching strategies (classroom discussion, feedback, mastery learning, questioning), learning strategies (rehearsal and memorization, metacognitive strategies, student-centered teaching), and implementation methods (scaffolding, interventions for students with learning needs, reciprocal teaching, direct instruction, technology with students with learning support needs, cooperative vs competitive learning, inquiry-based teaching, mobile phones, teaching creative thinking, collaborative learning). By considering

these factors holistically, educators can adopt innovative and sustainable approaches to address online education's diverse challenges, effectively confronting global challenges and promoting academic achievement.

Additionally, ethical considerations and behavioral intentions play a crucial role in implementing educational interventions, as highlighted by Aziz et al. (2022). Ensuring ethical practices and fostering positive teacher-student relations are integral aspects of sustainable innovation in education, aligning with the overarching theme of confronting unprecedented global challenges through sustainable innovation. By embracing a comprehensive approach to online learning design and considering the multifaceted factors influencing academic achievement, educators can leverage sustainable innovation to address global challenges and foster meaningful learning experiences in the digital age.

### Students' Perceptions of Academic Achievement in Online Learning

The survey results regarding students' perceptions of their academic achievement in online learning are outlined below:

#### Comprehensibility of Online Learning

As depicted in Figure 1, a significant proportion of students (69%) concurred that online learning was easy to comprehend. Students collectively expressed that "online learning offers more accessible materials that are easily understood and affords students additional time to learn them." The resources contributing to their understanding included video analysis, PowerPoint slides, and recorded video lectures. One student remarked, "online learning allows me to independently study the material without the pressure of peers and teachers." These responses affirm their view that online learning was easy to understand. However, a minority of students (31%) disagreed that

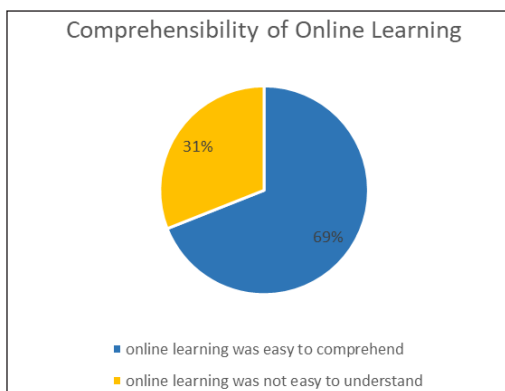


Figure 1. Students' perception of the comprehensibility of online learning

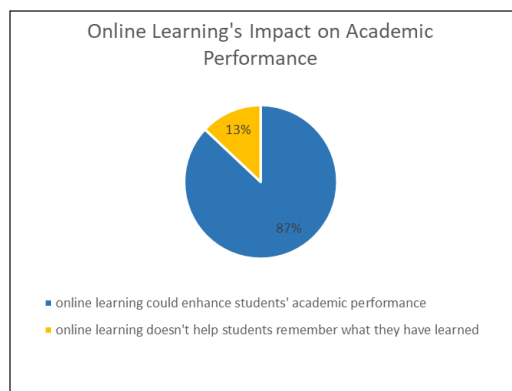


Figure 2. Students' perception of the impact of online learning on academic performance

online learning was easy to understand. They cited reasons such as “some courses assign too many tasks without adequate explanation and materials,” “the teacher uses too many teaching methods, which cause confusion,” and “technical issues like internet connectivity hinder my understanding of the material.”

### ***Online Learning's Impact on Academic Performance***

As shown in Figure 2, most (87%) of students believed online learning could enhance their academic performance. Some students noted that “online learning is more conducive, especially when I attend classes from home. There are no distractions, and I can focus more on the course I'm participating in.” Others felt that “online learning fosters independence since I can't rely on my classmates to complete tasks, boosts confidence in interacting with the teacher because I'm not nervous when asking questions through video conferencing platforms, and keeps me more informed about the topic discussed in the online sessions as the teacher assigns more homework with extended submission deadlines - helping me improve my course grade.” However, a small percentage (13%) of students argued that “online learning doesn't help me remember what I've learned better, instead, face-to-face class sessions allow me to remember it well since I can immediately discuss with my classmates.”

Students generally viewed online learning positively, viewing it as accessible and potentially beneficial for academic

advancement. Their favorable attitudes towards online education likely stem from positive experiences with the medium. Scholars such as Tudor et al. (2010) stress the importance of understanding students' perceptions as they shape learning approaches. Consequently, fostering a positive attitude towards online learning is pivotal for its success, echoing the principles of sustainable innovation. While students' academic performance, measured by GPA, did not significantly improve during online learning, it did not decline either. However, considering the multifaceted nature of academic achievement, as highlighted by Hattie and Zeirer (2019), there exists potential for enhancement through various intervening variables. By addressing these factors, educators can leverage innovative and sustainable strategies to maximize the effectiveness of online learning, thereby contributing to the global effort of confronting unprecedented challenges through sustainable innovation.

### **CONCLUSION**

In summary, this research aimed to determine whether students' academic performance varied between online and offline learning and to understand their perceptions of online learning and academic achievement. The findings suggest no significant difference in students' academic performance across both learning modes and that students generally had a positive view of online learning and academic achievement. This research adds to the existing knowledge on online and offline learning by confirming that the mode

of learning cannot be used as a predictor for students' academic achievement. Their course grades do not necessarily influence students' positive perceptions of online learning and academic success.

### **Implications of the Study**

The findings of this study have several practical implications for educators, policymakers, and stakeholders in the field of education. Firstly, integrating multimodal resources in digitalized learning platforms can significantly enhance student comprehension and engagement by addressing Gardner's multiple intelligences. Visual learners (spatial intelligence) benefit greatly from digital tools that include diagrams, infographics, charts, and videos. Auditory learners (musical intelligence) find value in podcasts, recorded lectures, discussions, and text-to-speech options for written content. Linguistic learners thrive with digital content that incorporates bullet points, interactive text-based activities, and storytelling techniques, aligning with their preference for reading and writing. Kinesthetic learners (bodily-kinesthetic intelligence) engage well with interactive simulations, virtual labs, or activities that involve physical interaction with learning materials. Logical-mathematical learners can be effectively engaged through digital problem-solving activities and analytical tasks. Digital learning environments incorporating collaborative projects and online discussions cater to interpersonal learners, while intrapersonal learners benefit from self-reflective activities

and autonomous learning opportunities. Naturalistic learners find virtual field trips and ecological simulations particularly beneficial in a digital format.

Secondly, the flexibility of digitalized learning allows students to manage their study schedules effectively, accommodating their time constraints and responsibilities. Thirdly, fostering a sense of autonomy within digital learning environments empowers students to pursue self-directed learning and critical thinking. Digital tools enable a seamless integration of various learning activities that cater to Gardner's multiple intelligence, ultimately enhancing overall educational outcomes. They can explore topics beyond the prescribed curriculum, pursue self-directed learning, and engage in critical thinking. Furthermore, online learning demonstrates its effectiveness as the world faces unprecedented disruptions. The ability to transition between in-person and online modes ensures educational continuity during crises. Lastly, while online learning benefits struggling students, it also maintains effectiveness for those with higher academic performance.

### **Implications and Recommendations of the Future Research**

While this study provides valuable insights, its applicability is specific to the context of higher education in Indonesia, which may limit its generalizability. Future research should explore the impact of online and offline learning on academic achievement in diverse geographical and cultural contexts. The research design may also have inherent

biases or limitations that could influence the results. Employing different methodologies, such as longitudinal studies or randomized controlled trials, could provide deeper insights into the relationship between learning modes and academic performance. Further research should also investigate the long-term effects of online learning on student outcomes and well-being. These efforts are essential for advancing sustainable innovation in education and addressing the unprecedented global challenges faced by educational systems worldwide.

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## REFERENCES

- Ally, M. (2008). Foundations of educational theory for online learning. In T. Anderson (Ed.), *The theory and practice of online learning* (pp. 15-44). AU Press. <https://doi.org/10.15215/aupress/9781897425084.01>
- Aziz, F., Rasdi, R. M., Rami, A. A. M., Razali, F., & Ahrari, S. (2022). Factors determining academics' behavioral intention and usage behavior towards online teaching technologies during Covid-19: An extension of the UTAUT. *International Journal of Emerging Technologies in Learning*, 17(09), 137-153. <https://doi.org/10.3991/ijet.v17i09.30481>
- Cheise, A. (2023, October 15). *How online learning affects students*. Prosperity. <https://www.prosperityforamerica.org/how-online-learning-affects-students/>
- Choi, H. (2021). Factors affecting learners' academic success in online liberal arts courses offered by a Traditional Korean University. *Sustainability*, 13(16), 1-12. <https://doi.org/10.3390/su13169175>
- Choi, N. (2005). Self-efficacy and self-concept as predictors of college students' academic performance. *Psychology in the Schools*, 42(2), 197-205. <https://doi.org/10.1002/pits.20048>
- Creswell, J. W., & Creswell, J. D. (2023) *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). Sage Publications.
- Dillenbourg, P. (1999). What do you mean by 'collaborative learning'? In P. Dillenbourg (Ed.), *Collaborative-learning: Cognitive and computational approaches* (pp. 1-6). Elsevier.
- Donnellan, M. B., & Lucas, R. E. (2013). Secondary data analysis. In T. D. Little (Ed.), *The Oxford handbook of quantitative methods: Vol.2 Statistical Analysis* (pp. 665-677). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199934898.001.0001>
- Downes, S. (2005, October). E-learning 2.0. *eLearn*, 2005(10), 1. <https://doi.org/10.1145/1104966.1104968>
- El Takach, S. (2022). A two-year follow-up case study on pre-service science teachers' attitudes towards online learning and academic achievement in science education courses. *International Journal*

- of Technology in Education and Science*, 6(4), 585-601. <https://doi.org/10.46328/ijtes.403>
- Guan, S., Lv, J., & Wu, H. (2021). The impact of online learning on college students' academic achievement during the COVID-19 pandemic: The mediating role of self-regulated learning strategies and motivation. *Frontiers in Psychology*, 12, 634984. <https://doi.org/10.3389/fpsyg.2021.634984>
- Hakim, A., Nurhikmah, N., Halisa, N., Febriati, F., Aras, L., & Lutfi, L. (2023). The effect of online learning on student learning outcomes in Indonesian subjects. *Journal of Innovation in Educational and Cultural Research*, 4, 133-140. <https://doi.org/10.46843/jiecr.v4i1.312>
- Hattie, J., & Zeirer, K. (2019). *Visible learning insights*. Routledge. <https://doi.org/10.4324/9781351002226>
- Kaur, M., & Mahal, P. (2021). Impact of online learning on academic achievement of college students during COVID-19 pandemic. *International Journal of Emerging Trends in Education*, 3(1), 48-60. <https://doi.org/10.20448/2002.31.48.60>
- Kim, K. J., Lee, H. J., & Lee, J. H. (2020). Online learning and its impact on academic performance: Evidence from South Korea. *Computers & Education*, 146, 103757. <https://doi.org/10.1016/j.compedu.2019.103757>
- Kira, D., & Saade, R. (2006). Factors affecting online learning. *Proceeding of IADIS International Conference on Cognition and Exploratory Learning in Digital Age (CELDA 2006)*, 277-282
- Kraiwanit, T., Jangjarat, K., & Srijam, A. (2023). Factors determining online activities and technology use among older adults in Thailand. *Pertanika Journal of Social Sciences & Humanities*, 31(2), 803-816. <https://doi.org/10.47836/pjssh.31.2.17>
- Lederman, D. (2021, August 5). Student performance in remote learning, explored (imperfectly). *Inside Higher Ed*. <https://www.insidehighered.com/news/2021/08/06/do-college-students-perform-worse-online-courses-one-studys-answer>
- Lee, J. H., & Kim, J. (2020). Comparison of academic achievement between online and face-to-face courses among undergraduates in Korea. *Journal of Educational Technology*, 36(4), 729-752. <https://doi.org/10.17232/KSET.36.4.729>
- Miles, M. B, Huberman, A. M, & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook*. SAGE Publications
- Mothibi, G. (2015). A meta-analysis of the relationship between e-learning and students' academic achievement in higher education. *Journal of Education and Practice*, 6(9), 6-9.
- Muijs, D. (2004). *Doing quantitative research in education with SPSS*. Sage Publications. <https://doi.org/10.4135/9781849209014>
- Nadeak, B. (2020). The effectiveness of distance learning using social media during the pandemic period of COVID-19: A case in Universitas Kristen Indonesia. *International Journal of Advanced Science and Technology*, 29(7), 1764-1772.
- Nguyen, T. (2015). The effectiveness of online learning: Beyond no significant difference and future horizons. *MERLOT Journal of Online Learning and Teaching*, 11(2), 309-319.
- Orlov, G., McKee, D., Berry, J., Boyle, A., DiCiccio, T., Ransom, T., Rees-Jones, A., & Stoye, J. (2021). Learning during the COVID-19 pandemic: It is not who you teach, but how you teach. *Economic Letters*, 202, 1-4. <https://doi.org/10.1016/j.econlet.2021.109812>
- Parker, J. D. A., Summerfeldt, L. J., Hogan, M. J., & Majeski, S. A. (2004). Emotional intelligence and academic success: Examining the transition from high school to university. *Personality and Individual Differences*, 36(1), 163-172. [https://doi.org/10.1016/S0191-8869\(03\)00076-X](https://doi.org/10.1016/S0191-8869(03)00076-X)



- Phakiti, A. (2014). *Experimental research methods in language learning*. Bloomsbury.
- Pham, T. T. T., Le, H. A., & Do, D. T. (2021). The factors affecting students' online learning outcomes during the COVID-19 pandemic: A Bayesian exploratory factor analysis. *Education Research International*, 3, 1-13. <https://doi.org/10.1155/2021/2669098>
- Phan, T. T. P., Bui, T. T. H., & Ngo, H. T. T. (2021). Does online learning really affect high school students' academic achievement? The role of perceived enjoyment. *Children and Youth Services Review*, 122, 105913. <https://doi.org/10.1016/j.childyouth.2021.105913>
- Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning*, 2(1). Retrieved July 6, 2023, from [http://www.itdl.org/Journal/Jan\\_05/article01.htm](http://www.itdl.org/Journal/Jan_05/article01.htm)
- Spitzer, M. W. H., & Musslick, S. (2021). Academic performance of K-12 students in an online-learning environment for mathematics increased during the shutdown of schools in wake of the COVID-19 pandemic. *PLoS ONE*, 16(8), 1-16. <https://doi.org/10.1371/journal.pone.0255629>
- Tudor, J., Penlington, R., & McDowell, L. (2010). Perceptions and their influences on approaches to learning. *Engineering Education*, 5(2), 69-79. <https://doi.org/10.11120/ened.2010.05020069>
- Ulum, H. (2021). The effect of online education on academic success: A meta-analysis study. *Education and Information Technology*, 27, 429-450 <https://doi.org/10.1007/s10639-021-10740-8>
- UNESCO. (2020, March 24). *COVID-19 Educational disruption and response*, <https://en.unesco.org/covid19/educationresponse/>.
- Wang, Q., & Tafazoli, D. (2019). Online learning in China: Examining the impact of online learning on student performance. *Journal of Educational Technology Development and Exchange*, 12(1), 1-15.



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