

Usability Evaluation Successful Factors (SFs) Framework through Entrepreneurship Program at Community College Malaysia: Modified Nominal Group Technique Approach

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ABSTRACT

This paper discusses the success factors (SFs) of the entrepreneurship programme available in Malaysian community colleges. The benefit of the Modified Nominal Group Technique (NGT) approach carried out aims to achieve understanding of the usability test and evaluation of the SFs framework. The objective of this study is to identify the usability and evaluation of lecturers on the elements of entrepreneurship for four domain areas, strategy, environment, temporal and industry. The analysis covers the importance of SFs framework development, which determines the type of framework to use as reference in carrying out the entrepreneurship programme in Malaysian community colleges. In the usability test and evaluation process, 21 experts were chosen from three types of community college, from whom seven lecturers were allocated to each programme based on the understanding of the lecturers. Questionnaires were distributed to seek lecturer consensus. The Statistical Package for the Social Sciences (SPSS) version 22.0 was used to analyse and find the percentage of consensus for each domain within the framework. This was to find the percentage of expert consensus against the SFs framework. The result of the analysis shows more than 75% acceptance and consensus for the functionality of SFs. Basically, this analysis is capable of providing reference and guidelines for the development of a SFs framework. Therefore, the analysis is able to provide information and reference for future researchers to explore the domain of entrepreneurship.

ARTICLE INFO

Article history:

Received: 01 November 2016

Accepted: 15 April 2017

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Keywords: Consensus, domain, element, nominal group technique, succes factors, usability evaluation

INTRODUCTION

Entrepreneurship is an important requirement in the development of the national economy, as it depends on the strength of the economy such as business, company and trade. Therefore, the government has often emphasised entrepreneurship as a choice career for graduates from institutions of higher learning, with the aim of producing more entrepreneurs. Successful entrepreneurs are creative, innovative and competitive and have viable skills and competencies. These features need to be cultivated in Malaysian graduates (Budget 2013; Commitment of Higher Education, 2012; Wickham, 2006). Entrepreneurship can also be an added value for graduates while expanding entrepreneurial culture. This can be done through various programmes and extra-curricular activities, increasing graduate activity and providing a conducive environment for producing quality human capital that is creative, innovative, competitive and equipped with admirable ethical values (Nordin, 2012; Nasharuddin & Harun, 2010, p. 11). In fact, local university students are given exposure to the culture of entrepreneurship to make them more competitive and capable. If students successfully establish themselves as entrepreneurs, they will be able to contribute directly to economic growth as well as provide employment opportunities to the community (Critical Agenda Projects under the National Higher Education Strategic Plan, 2012; Hassan, 2012; The Preliminary Plan of Education Development 2013-2015, 2012).

Entrepreneurship is recognised as an area that contributes to the development of productive and innovative economy and indirectly, this field can reduce the issue of unemployment among graduates (Frederick, O'Connor, & Kuratko, 2013). In addition, entrepreneurship plays a very important role in creating new business that can lead to further reforms or innovation in the future to improve economic development (Frederick, O'Connor, & Kuratko, 2013; Kuratko, 2009). Increasing interest in the field of entrepreneurship came with the formulation of the New Economic Policy (NEP), the Second Malaysia Plan (1971-1974) and the National Development Policy (NDP) (1991-2000, 2001-2005). All of the mentioned policies emphasise the importance of entrepreneurship development in the country to achieve the National Vision Policy. The Eighth Malaysia Plan (8MP) introduced Vision 2020 to build a commercial and industrial community focussed on education institutions in the development of entrepreneurship and human resources. This was continued as the Ninth Malaysia Plan (9MP), which focussed on human capital development, emphasising knowledge and intellectual skills, with attention on entrepreneurship through education and training and continual effort up until the 10th Malaysia Plan (10MP).

Along with that, to improve the national economy, the Ministry of Higher Education (MOHE) highlighted the importance of human capital development. Human capital is made up of not only academic knowledge but also skills, ideas and experience in

entrepreneurship. In this century, the skills and mindset of entrepreneurship and innovation are a priority and are used as a catalyst for national economic growth. In addition to creating jobs and wealth for the country and seeking to resolve issues and challenges at the global level, business is very important for improving the employability of graduates and resolving the issue of unemployment of graduates (Moksin, 2012, p. 381; Nordin, 2012).

However, according to Mutalib, Mahmud and Anuar (2012, p. 57), Malaysian higher education institutions organised various activities to produce graduates who are effective, but still not able to achieve the national target. As it is evidently notable, graduates should now practice the value of entrepreneurship. They should be highly competitive in many aspects of life in the face of globalisation. In an economic crisis, this should be used as an inspiration for graduates to be involved in entrepreneurship (Hassan, Hussin, & Yi, 2009, p. 44). In other words, the knowledge can equip students for real life experiences such as entrepreneurship.

Dhliwayo (2008, p. 329), who conducted a study in South Africa, believed that entrepreneurship should provide facilities to students to start a business in a given period, during or after graduation. Based on his findings, training and experience can actually be integrated into entrepreneurship education. There are many places on campus available to students and student entrepreneurs with facilities such as food kiosks and stationery stores, giving them

the opportunity to experience a 'failed' or successful' business enterprise first-hand. Certainly, studies in entrepreneurship learning theory and experiential learning will be beneficial to students who engage in entrepreneurial activities or programmes.

This research paper was intended to explore and identify the domains that are important in entrepreneurship as a guideline and reference (Howell, 2010; Rockart & Bullen, 1981). This paper emphasises the main domain of a successful entrepreneurship programme. This paper also discusses methodologies that apply the Modified Nominal Group Technique (NGT) to test and evaluate the items that have been explored by researchers (Creswell, 2012; Cohen, Manion & Morrison, 2011). In addition, the researchers used the usability and evaluation of community college lecturers to get agreement and confirmation of the identified main domains (see Figure 1 in Appendix A).

METHODOLOGY

In the Modified Nominal Group Technique (NGT), lecturers needed to analyse and present their views and ideas concerning the evaluation of the entrepreneurial activity programme that included a domain that was submitted and then obtained by the researcher. The Final Success Factors Framework was designed and developed and submitted to lecturers for their consensus on the assessment of the framework, as shown in Appendix A. The researchers use PowerPoint slides during a presentation and provided information

and discussed the suitability of the domain. After that, the researchers listened to the views and evaluation of the lecturers by providing opportunities for them to forward questions. Then the lecturers analysed the presented assessment items. In addition, questionnaires were used to obtain comments from lecturers privately without discussing with the groups of lecturers. The questionnaire contained a set of questions or items in written form. It was easy to use because it was constructed properly and data were processed and analysed (Idris, 2010). According to Fraenkel and Wallen (2009), the use of questionnaires can improve the accuracy and correctness of the responses given by the respondents.

The NGT evaluation process was also intended to eliminate or drop items that did not meet the suitability domain. Emphasis was on the consensus in the assessment process if there was a conflict of ideas from a group of lecturers along with a dedicated domain suitability. Feedback from lecturers was also very important because they were the ones who would use the framework in the future. The NGT evaluation process was also used to get votes from the community college lecturers who would use the framework as a reference and guide for achieving critical success factors of entrepreneurship in Malaysian community colleges (Hamid & Madar, 2015, p. 272). Therefore, the questionnaire was used to measure the response of community colleges (Creswell, 2012; Cohen, Manion & Morrison, 2011). Thus, the questionnaire was used in the evaluation

to test the usability of the framework that had been designed and developed. Results collected from the developed questionnaire were used in the analysis process. The NGT reached a consensus of 75% or more. In this research, the researchers only explained the appropriateness of each domain to reach agreement in the assessment process. The study, which involved the development of a framework, used the Modified Nominal Group Technique (NGT). The aim and purpose of using the NGT was to determine the usability of the framework that was developed as a reference and guide for future researchers and lecturers teaching in Malaysian community colleges.

RESULTS

The research question investigated in this study was, "What are the success factors of the usability and evaluation framework for entrepreneurship programmes based in the view of community college lecturers for the domain, suitability?" The findings on the usability of the framework domain, presented in Table 1, show the result obtained from using the Modified Nominal Group Technique (NGT) in order to get information about the assessment of community college lecturers of the appropriateness of the domains in the framework based on the success factors that were designed and developed (Madar & Hamid, 2014, p. 138). Of the community colleges selected, seven lecturers were from the community college in Jempol, seven from the one in Kota Melaka and the final seven from the one in Pekan. The lecturers were gathered

in a group in every community college for discussion of the NGT process on different days and at different times. This meeting was to test usability, views and assessment of the framework. The reason for meeting at different times and on different dates was due to the great distance between the community colleges.

Table 1
Usability test and evaluation of the success factors framework

Domain listed below are part of the Framework		
1. Strategy		
Level of evaluation	Frequency	Percentage (%)
Important	1	4.8
Very important	12	57.1
Extremely Important	8	38.1
Total	21	100.0
2. Environment		
Level of evaluation	Frequency	Percentage (%)
Important	1	4.8
Very important	14	66.7
Extremely Important	6	28.6
Total	21	100.0
3. Temporal		
Level of evaluation	Frequency	Percentage (%)
Important	3	14.3
Very important	15	71.4
Extremely Important	3	14.3
Total	21	100.0
4. Industry		
Level of evaluation	Frequency	Percentage (%)
Important	2	9.5
Very important	14	66.7
Extremely Important	5	23.8
Total	21	100.0

Table 1 shows the results of the usability tests in evaluating appropriateness of the domains within the framework that was designed and developed. Response and feedback from the lecturers used a scale of seven levels representing the level of lecturer evaluation of the answers they provided. Four primary domains were presented in the NGT. In the domain of strategy, only one lecturer (4.8% of the total percentage of lecturers) thought this domain was important, while a total of 12 lecturers (57.1%) out of the 21 thought it was very important. Eight lecturers (38.1%) thought it was extremely important. Thus, the overall opinion of the domain, strategy, was positive and consistent. In the context of the overall findings of this study reached an agreement of 75% and above in the usability test.

For the domain, environment, only one lecturer (4.8%) thought it was important, while 14 (66.7%) thought it was very important and six (28.6%) thought it was extremely important. None of the assessments were lower than the ratings 1, 2, 3 and 4, indicating that the response of the lecturers was positive. They reached an agreement of 75% and above.

For the domain, temporal, three (14.3%) lecturers believed that it was important, while 15 (71.4%) thought it was very important and three (14.3%) thought it was extremely important. On the whole domain is also consistent environment. None of the assessments were lower than the ratings 1, 2, 3 and 4, indicating that the response of the lecturers was positive and consistent.

The last domain was industry. Two (9.5%) lecturers thought this domain was

important, while 14 (66.7%) thought it was very important and five (23.8%) thought it was extremely important. to the overall percentage of. In this industry domain is also consistent, None of the assessments were lower than the ratings 1, 2, 3 and 4, indicating that the response of the lecturers was consistently positive, reaching an agreement in the usability test of 75% and above. The overall results showed that the framework was well received by the lecturers, with no disputes or conflicts having arisen.

DISCUSSION

The following is a discussion of the findings of the usability evaluation phase based on the framework of success factors for the entrepreneurial programme in community colleges in Malaysia (Richey & Klein, 2007). Overall, the findings of the evaluation phase showed the assessment of the usability of the lecturers' consensus framework that had been developed using the framework of the evaluation process using the Modified Nominal Group Technique (NGT) approach involving 21 community college lecturers. The assessment framework of the success factors was developed after the researchers had obtained the experts' consensus of as much as 75% and above and had compiled all the priority domains. Next, the researchers made a presentation and held a discussion to brainstorm for ideas, after which, they identified the extent of the assessment of the usability framework. The researchers then administered a questionnaire based on the concept of NGT. At the end of the session,

the researchers called for questions from the lecturers.

However, discussions in the context of this study also found that entrepreneurship at community colleges was less dependent on other parties for training. These findings can help e-tech centres to develop entrepreneurs among community college students. The researchers recommend the strengthening of the Entrepreneurial Model (Jabatan Pengajian Kolej Komuniti, 2013; Jabatan Pengajian Tinggi Kolej Komuniti, 2012) and the Model Experience Entrepreneurship Education of Entrepreneurship (Honig, 2004)

This study also found that there are many benefits in having a relationship with industry. This is in line with the National Higher Education Strategic Plan (2012) and the policies of the Ministry of Higher Education (2010), which state that there are many benefits to establishing relationship with industry such as having access to advice from personnel from human resources and finance, access to infrastructure and encouragement for students. The Ministry of Higher Education Malaysia recommends that institutions have adequate infrastructure, in addition to providing advisory services, such as planning, management, production, marketing and financial management as well as producing qualified and competent graduates.

Further discussion in the context of a usability and evaluation framework for community colleges, especially entrepreneurship centres, is necessary to help students and lecturers as well as

contribute to improving and increasing promotion of entrepreneurial function. The findings of this study are consistent with those given Yusoff and Zahari's study titled 'E-Tech Centre Function Helps Entrepreneurs Among Community College, Perak Province, the Ministry of Higher Education Malaysia.' This study showed that the function of e-tech centres is to help create entrepreneurs from among community college students.

Finally, this study also found that entrepreneurship is getting a lot of interest especially when a training programme is directly related to the real-life scenario of entrepreneurship. This is because a real-life environment provides a more impactful learning experience in which students experience situations for themselves first-hand. These findings were reviewed by Mohamad (2014) in connection with the implementation of University Utara Malaysia's entrepreneurial programme, 'Siswaniaga', which extends benefits to students who participate in the programme in addition to hands-on knowledge and experience of real-life entrepreneurship. A suitable model associated with this item is the Model Experience Entrepreneurship Education of Entrepreneurship (Honig, 2004).

CONCLUSION

An entrepreneurship programme can serve as a guide and reference for higher education institutions. This study investigated the

entrepreneurship programme offered in Malaysian community colleges. The study evaluated the usability of success factors (SFs) in providing strength and support for the improvement of the entrepreneurship programme. The domains and elements of the programme were studied in order to produce a robust entrepreneurship programme for the future. For such a programme to succeed, it is necessary to collaborate with the agencies involved, such as the Ministry of Higher Education, Majlis Amanah Rakyat (MARA), Tabung Ekonomi Kumpulan Usaha Niaga (TEKUN), AGROBANK and the Malaysian Agricultural Research and Development Institute (MARDI), among others. It is also important for the related bodies to use a workable framework such as the one developed for this study. Such a framework will work as a guide in designing successful entrepreneurship programmes for the future. The researchers hope to develop a framework of real SFs that can provide guidance and reference to all the parties involved in entrepreneurship training. The researchers hope this framework of SFs will have a positive impact on entrepreneurship training in the country.

ACKNOWLEDGEMENT

The authors would like to thank Universiti Tun Hussein Onn Malaysia (UTHM) and the Office for Research, Innovation, Commercialisation and Consultancy Management (ORICC) for supporting this research under the grant vote No. U108.

REFERENCES

- Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education* (7th ed.). Oxon: Routledge Taylor & Francis Group.
- Creswell, W. J. (2012) *Educational research planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Canada: Pearson.
- Ministry of Higher Education. (2012). Critical agenda projects under the national higher education strategic plan, 2012 (1st print). Putrajaya: Kementerian Pengajian Malaysia.
- Dhliwayo, S. (2008). Experiential learning in entrepreneurship education: A prospective model for South African tertiary institutions. *Journal of Education and Training*, 50, 329– 340.
- Fraenkel, J. R., & Wallen, E. W. (2009). *How to design and evaluate research in education*. Boston, MA: McGraw-Hill.
- Frederick, H. H., O'Connor, A., & Kuratko, D. F. (2013). *Theory, process and practice* (3rd ed.). South Melbourne: Victoria Cengage Learning.
- Hamid, R., & Madar, R. (2015). Rekabentuk kerangka CRISEP terhadap program keusahawanan kolej komuniti Malaysia. *Seminar majlis dekan-dekan universiti awam Malaysia* (1st print). p. 272– 278.
- Hassan, A. Z. (2012). *Dasar pembangunan keusahawanan 2012* (3rd print). Putrajaya: Kementerian Pengajian Malaysia.
- Hassan, W. S., Hussin, M., & Yi, W. C. (2009). Masalah-masalah yang dihadapi oleh usahawan wanita bumiputra di daerah Seremban. *Prosiding Seminar Kebangsaan Pembangunan Keusahawanan*. Seremban, Malaysia. p. 44– 45.
- Honig, B. (2004). Entrepreneurship education: Toward a model of contingency-based business planning. *Academy of Management Learning and Education*, 3(3), 258– 273.
- Howell, M. T. (2010). *Critical success factors simplified, implementing the powerful driver of dramatic bussiness improvement*. New York: Taylor & Francis Group, LLC.
- Idris, N. (2010). *Penyelidikan dalam pendidikan*. Kuala Lumpur: McGraw Hill Education.
- Jabatan Pengajian Kolej Komuniti, JPKK. (2013). *Koleksi informasi terkini kolej komuniti*. Putrajaya: Kementerian Pendidikan Malaysia.
- Jabatan Pengajian Tinggi Kolej Komuniti, JPKK. (2012). *Modul asas kemahiran keusahawanan kolej komuniti*. Putrajaya: Pusat Keusahawanan Kolej Komuniti (PUSKOM).
- Kementerian Pengajian Tinggi. (2010). *Dasar pembangunan keusahawanan* (3rd print). 2012.
- Kementerian Pengajian Tinggi. (2012). *Budget 2013 commitment of higher education*. Putrajaya: Kementerian Pengajian Tinggi.
- Kuratko, D. F. (2009). *Introduction to entrepreneurship* (8 ed.). Australia: South Western Cengage Learning.
- Madar, R., & Hamid, R. (2014). A theoretical review on critical success factors (CSFs) of entrepreneurship programs in community college. *International Journal of Sustainable Development and World Policy*, 3(6), 138–145.
- Mohamad, A., Buang, P., & Aishah, N. (2014). *Penilaian pelaksanaan program siswaniaga Universiti Utara Malaysia* (Doctoral dissertation, UKM).
- Moksin, N. (2012). Pembudayaan keusahawanan di politeknik Melaka: Isu dan cabaran. *Prosiding seminar Keusahawanan Kebangsaan Kolej Komuniti*. 2012 October 31–November 1, Putra World Trade Centre, Kuala Lumpur. p. 381– 396.

- Mutalib, N., Mahmud, A., & Anuar, M. N. (2012). Skim prestasi tinggi graduat berkeusahawanan. *Prosiding Seminar Keusahawanan Kebangsaan Kolej Komuniti*. 2012, October 31-November 1, Putra World Trade Centre, Kuala Lumpur. p. 57–67.
- Nasharudin, N., & Harun, H. (2010). Aspirasi kerjaya keusahawanan dalam kalangan pelajar Institusi Pengajian Tinggi Awam. *Jurnal Pendidikan Malaysia*, 35(1), 11–17.
- National Higher Education Strategic Plan. (2012). *Dasar Pembangunan Keusahawanan* (3rd print). Putrajaya: Kementerian Pengajian Malaysia.
- Nordin, K. (2012). Ucapan menteri pengajian tinggi Malaysia. *Perasmian Seminar Keusahawanan Kebangsaan 2012, Kelestarian Keusahawanan Memacu Ekonomi Mapan*. Retrieved from <http://www.mohe.gov.my/portal/images/infoKPTM/ucapan/menteri/Ucapan%20Seminar%20Keusahawanan.pdf>
- Preliminary Plan of Education Development 2013-2015, The. (2012). Retrieved from: www.moe.gov.my/userfiles/file/PPP/Preliminary-Blueprint-BM.pdf
- Richey, R. C., & Klien, J. D. (2007). *Design and development research: Method, strategies and issues*, London: Erlbaum.
- Rockart, J., & Bullen, C. (1981). A primer on critical success factors. *Center for Information Systems Research Working Paper No 69*. Sloan School of Management, MIT, Cambridge, Massachusetts. Retrieved from <http://www.scribd.com/doc/13744679/Definisi-Usahawan-Dan-Keusahawanan>
- Wickham, P. A. (2006). *Strategic entrepreneurship* (4th ed.). United Kingdom: Pearson Education Limited.
- Yusoff, M. N., & Zahari, M. N. (2012). Fungsi e-tech centre membantu melahirkan usahawan dalam kalangan pelajar kolej komuniti wilayah Perak, Kementerian Pendidikan Tinggi Malaysia. *Prosiding Seminar Keusahawanan Kebangsaan Kolej Komuniti*. 2012, October 31-November 1, Putra World Trade Centre, Kuala Lumpur. p. 163–187.

APPENDIX A

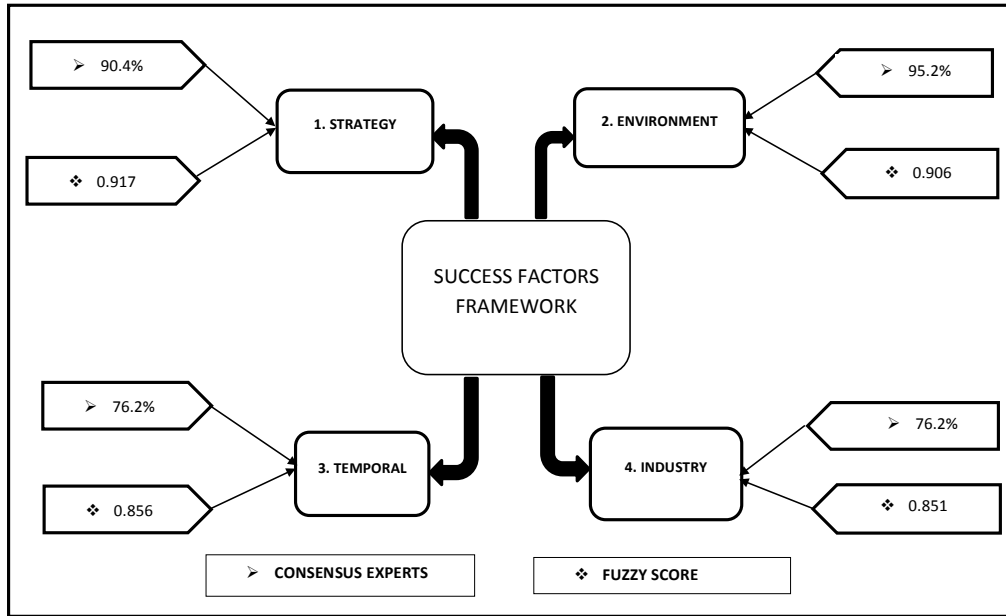


Figure 1. Success factors framework.