The Survival of Batik Madura in Digital Era: A Case Study of Small Medium Enterprises (SME) at Batik Madura Center

Alwiyah¹*, Evi Steelyana², Sayyida³ and Izah Tahir⁴

¹Department of Accounting, Wiraraja University, Madura, East Java 69451, Indonesia
²Department of Accounting, Faculty of Economics and Communication, Bina Nusantara University, Jakarta 11480, Indonesia
³Department of Management, Wiraraja University, Madura, East Java 69451, Indonesia
⁴Department of Management, Universiti Sultan Zainal Abidin, 21300 Kuala Terengganu, Terengganu, Malaysia

ABSTRACT

Batik Madura industry was developed in 1293 during the reign of Majapahit. Since its creation, it has significantly contributed to the development and growth of the regional economy with massive growth in the creative industry. It comprises cultural heritage, art, and economic values. Batik Madura is made up of unique colours which are inspired by the nature, culture, and environment of Madura. In recent years, most of the Small Medium Enterprises (SME) businesses carried out by Batik Madura merchants have been facing challenges on how to survive in the current globalization and digital era. Similarly, batik artisans (craftsmen) are decreasing drastically, leading to a decrease in productivity and cultural preservation. The purpose of this research work is to analyze the key factors affecting batik entrepreneurs, to analyze factors affecting their existence and to change their view on the use of social media platforms and information technology to support their businesses. Furthermore, this research work aims at analyzing the ways batik artisans could survive and increase their craftsmanship quality. Data were collected using the quantitative method of data collection which involves the use of questionnaires. The results of the analysis obtained show that the economic growth of
Batik Madura is greatly influenced by family and relatives and not by skills.

**Keywords:** Batik Artisan, Batik Madura, digital era, information technology, Small Medium Enterprise Industry (SME)

**INTRODUCTION**

Batik is a by-product of Nusantara; however, there are researches which claims batik as being cultural by-product produced by on Central Java only. Indonesia which is also known as Nusantara, consists of several islands, with each Island producing a unique kind of batik. Batik can be found in Cirebon (West Java), Semarang (Central Java), Parahyangan (West Java), and in Madura (East Java). Madura is an island located some 100 km away from Surabaya, the capital of East Java. Batik rich value is one of the numerous reasons why is being used and known throughout Nusantara. Batik is significantly grown in large amounts on Java Island, Central Java and Special Region of Yogyakarta (DIY Yogyakarta). It can also be found in large amounts in Sumatra or Celebes Islands (Ramelan, 2010).

Batik as part of a nation’s culture comprises of tradition, value, and spirit of the people of Indonesia. Indonesians use batik in their day-to-day activities and on special occasions. Similarly, batik is a national product used to support local entrepreneurs and to strengthen the economy since most of the batik entrepreneurs and batik artisan are Small Medium Enterprises (SME) (Alwiyah, 2017).

**INTRODUCTION**

Batik Madura has been in existence since the reign of King Aria Wiraraja, a Madura king who had a close relationship with Raden Wijaya, the ruler of the Majapahit Kingdom, which was the biggest kingdom in Indonesia around 1290 (Alwiyah, 2017). Batik Madura was introduced between 1415-1460 at Keraton Sumenep. Afterwards, Tanjung Bumi, Bangkalan and Sampang, and Pamekasan regions of Indonesia also launched batik Madura in their respective regions. Batik is not just about fashion, it has great cultural values behind it. The people of Indonesia, wear batik to depict and preserve their culture. It is also believed to contain their national spirit. Batik on some occasions could be used as diplomatic tools in local and international forums. It also creates an impact on economic value and socio-cultural which is part of the nation’s pride (Steelyana, 2012).

Batik Sumenep industry located in Pekandangan Madura is not growing significantly. There is a low level of knowledge with regards to production technique, finance, accounting, marketing, and promotion. Batik entrepreneurs still perform their businesses traditionally just as it was inherited from their ancestors (Sayyida & Zakki, 2014). Batik Madura is one of their national assets and their pride which should be worn by the locals in a bid to promote their heritage. SME should also develop their capacity to meet with the digital era, in other to survive and expand their businesses. They should also expand their market access and Information Technology.
In this digital and global era, the batik industry needs to enhance its competitive sector and human resource quality to meet the millennial age (Alwiyah, 2017). The focus should be on the digital era, and in Information Technology as these are fast-growing areas. Unfortunately, these areas have not been followed up. The ability and skill of the human resource in the batik industry; fast-growing global market (export-import trade) could also create a huge impact on the batik industry in Indonesia if properly looked into. Batik artisans and entrepreneurs should strive to stay in touch with the global competition. Similarly, entrepreneurs and artisans should adapt to the current marketing strategies such as the use of social media platforms, online shops and digital marketing techniques to promote and sell their goods and services. Several factors should also be taken into consideration by the local government in Madura to support the development of batik industry such as; the minimum standard wages for batik artisans, increased productivity, making the batik industry as part of tourism industry; making the batik industry as a Center for Research and Development to preserve and develop batik as cultural heritage in the modern era (Steelyana et al., 2017).

Although Batik Madura has existed since the Majapahit era and it has high artistic value, in terms of quantity, batik entrepreneurs and craftsmen are performing poorly. This is shown in the data obtained from the Department of Cooperative as well as the Department of Industry and Commerce of each district in Madura, which shows the number of entrepreneurs and craftsmen to be decreasing. For example, the data obtained from the Department of Cooperative showed the number of batik entrepreneurs in Sumenep to be 15 entrepreneurs while in actual fact, there were only 5 active batik entrepreneurs.

The objectives of this research were to analyze the perception of Batik Madura Entrepreneurs (BME) on several factors significant to the digital era, such as; accounting information system, for their financial report and the use of social media as a marketing strategy to expand the market access. This research work also analysed the factors that impact significantly on the sustainability of batik artisan, especially on Batik Madura industry. Some factors chosen to analyze the various effects associated with these inconsistencies are skill, family relationship, financial factor.

The methodology adopted in carrying out this research work was the quantitative method with descriptive statistic and Structural Equation Model (SEM) used to carry out the various hypotheses test. Researches were conducted from 1 April 2017 to 31 September 2017 by the use of questionnaires and interviewing of batik artisans and entrepreneurs. Literature research was also conducted to have a thorough understanding and knowledge of Batik Madura. The methodology section
would further explain the quantitative data analysis as well as the result obtained. The conclusion section will explain the various recommendations towards the survival of Batik Madura in the digital era.

Literature Review
Culture is fundamental to human life. It is intended to make people adapt to a community as well as its surrounding environment (Samovar et al., 2010), Culture can also be defined as ethics, philosophy and the value of universal at the certain society of (Soehardi, 2002; Trujillo et al., 2018).

Batik has its philosophy and aesthetic value as well as national pride. On 2nd October 2009, the United Nations Educational, Scientific and Cultural Organization (UNESCO), recognized batik as one of the world cultural heritage products (UNESCO, 2009) Javanese, defines batik as an art product used in the palace and also as a cultural instrument that represents the natural beauty and Javanese philosophy. Batik is a reflection of social status and expectation from the user (Dwiyanto & Nugrahani, 2002). Batik can also be used, during celebrations or great events such as engagement, wedding, Sidomukti, Sidoluhur, and Sidomulyo (Djoemena, 1986). Batik Gunungan is used to represent elements in supernatural authority and power, which is believed to support the user aura (Fraser-Lu, 1986 ). Currently, the number of batik artisan leaving in Madura is declining. Entrepreneurs in the batik industry in Indonesia still need the support of the local banking sector, to increase and expand their businesses. This can be seen by the huge number of batik entrepreneurs who seek loans from these local banks (Steelyana, 2013).

The Business Network International (BNI) has it that over 75% of SME business owners are ignored owing to the fact that the lack of social media presence. With over 270 million twitter users and 1.2 billion Facebook users, social media can be said to be one of the most powerful tools for business owners. However, many SMEs are still reluctant to build an online following presence (Business Matters, 2017).

Accounting information system is important for SME businesses. Research has it that the use of this system is important for the successful management of any business entity whether large or small (European Commission, 2008).

The changes that occurred in the business environment have led to an increasing number of unprocessed information. Thus the critical part is the quality of information produced by the business itself which will be used in making business decisions then a structured financial report which supported by accounting information system is a significant factor for providing reliable information (Mukherji, 2002).

Small and medium-sized enterprises (SMEs) are the backbone of the Asian economy. In every 96% of all Asian businesses, two out of three private-sector jobs in the region are made up of SMEs. Therefore, it is vitally important for the Asian economic to provide fully functioning support measures for SMEs. One of the
major challenges SMEs face is in accessing finances in banks. This is as a result of the asymmetric information problem between suppliers and demanders of funds, which hinders their growth (Yoshino & Taghizadeh-Hesary, 2017).

Financial Report which well structured will open access to bank credit is a structural problem in the Asia Finance SME Monitor region. SMEs have continued to influence trades. The latest data show that SMEs in the People’s Republic of China (PRC) and India accounted for more than 40% of total export values, followed by 26% in Thailand, 19% in the Republic of Korea, and 16% in Indonesia. Bank loans to SMEs made up averages of 11.6% of GDP and 18.7% of total bank lending in the region, with a decreasing trend to the latter since the 2008/2009 global financial crisis. Most SMEs have no connection with capital markets. Financial institutions can closely and continuously observe borrowers, but it is costly to do so for borrowers of small loans.

Most SME firms in batik Madura industry are family businesses. The family provides a positive influence on strategic initiatives in business units under certain conditions. It influences business units and surpasses corporate centre. Family influence in Indonesian family business groups occurs not only due to the influence of certain power dynamics within the family (ownership and management) but also due to experience and leadership qualities where company management has passed through more than two generations and the influence of family culture on company business management (Pendrian et al., 2018).

For Asian economies, especially for lower-income Asian countries, SMEs is the main sector of their economies. Asian economies also need to accumulate the SME data in a nationwide database for categorizing SMEs based on their creditworthiness. Those who are ranked higher get higher credits guaranteed by the government and at lower costs so that they can grow and expand their business. SMEs have a significant role in job creation and production. In addition, the risky type of SMEs should avoid borrowing money from banks, as they could lead to nonperforming loans. In order to promote SME startups and as well as risky SMEs, community-based lending such as hometown investment trust fund should be adopted (Yoshino & Taghizadeh-Hesary, 2017).

**MATERIALS AND METHODS**

This research made use of the quantitative method with descriptive analysis and Structural Equation Model (SEM) in its hypothesis test analysis. In this research work, the batik entrepreneurs and batik artisans are used as a sample population using a convenience sampling method. Batik Entrepreneurs and Batik Artisan were visited to spread the questionnaires to participants, so they fill them in. At the first stage, data from 21 respondents of batik entrepreneurs and 40 batik artisans were collected and analyzed with descriptive
analysis. On another occasion, another data from 203 respondents are going through Structural Equation Method (SEM) analysis.

All respondents (batik entrepreneurs and batik artisan) were allocated in Tanjung Bumi (Bangkalan), Pamekasan and Pekandangan (Sumenep) and they were considered as Small Medium Enterprise (SME) entrepreneurs with assets size around 500 Million IDR (USD 49,000) and 65-100 employees including batik artisan. Most craftsmanship in Batik Madura were home industry owners, who still made use of natural colouring resources.

In another sample, 40 questionnaires were spread out to batik artisan (craftsmanship) between the ages of 35-54 years old. Detail of respondents can be seen in Table 1 as follows:

Definition of (a) financial factor: income that is earned (b) skill: craftsmanship ability to use batik (c) family relationship: the relationship between batik artisan and batik entrepreneurs (as extended family or close family relationship)

RESULTS AND DISCUSSIONS

The Result from Batik Entrepreneurs Small Medium Enterprise. In this section, 3 (three) factors were analysed which are business sustainability, social media as a promotional tool, and accounting information system.

Analysis of Business Sustainability (as seen in Table 2):

1. Average Batik Entrepreneurs strongly agree that the business was inherited from previous generations.
2. Average Batik Entrepreneurs strongly agree that a good relationship with Batik Artisan creates a significant impact on business sustainability.
3. Average Batik Entrepreneurs, do not agree to the fact that it is difficult to locate a qualified batik artisan.
4. Average Batik Entrepreneurs have doubts about expanding their businesses outside Madura.
5. Average Batik Entrepreneurs strongly agree to inherit the business from the past generation

<table>
<thead>
<tr>
<th>Age (years old)</th>
<th>Total (persons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-24</td>
<td>4</td>
</tr>
<tr>
<td>25-34</td>
<td>4</td>
</tr>
<tr>
<td>35-44</td>
<td>14</td>
</tr>
<tr>
<td>45-54</td>
<td>15</td>
</tr>
<tr>
<td>55 and above</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
</tr>
</tbody>
</table>

Table 1
Respondents data
Table 2
*Business sustainability*

<table>
<thead>
<tr>
<th>No.</th>
<th>Statements</th>
<th>Median</th>
<th>Modus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Business (Batik Shop) is a heritage business</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Relationship with Batik Artisan creates a significant impact to your business</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>The past 5 years, it has been difficult to find qualified batik artisan</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Have Plan to expand the business outside Madura</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>The business will be passed to the next generation</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>One of the business objective is cultural preservation</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

Analysis of Social Media as a Promotion tool (as seen in Table 3):

1. The average entrepreneur agrees that social media has a significant impact on product promotion.
2. The average entrepreneur is starting to make use of social media in promoting their goods and services.
3. On average, most entrepreneurs assume that their employee does not have sufficient knowledge of social media.
4. The average entrepreneurs still doubt that social media could raise the sales volume.
5. The average entrepreneurs agree that social media creates a beneficially impact and expands market access.

Table 3
*Social media as a promotion tool*

<table>
<thead>
<tr>
<th>No.</th>
<th>Statements</th>
<th>Median</th>
<th>Modus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Social media has significant role for product promotion</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Using social media (Instagram, Facebook, Line, BBM) as part of promotion tools</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Employees have sufficient knowledge in using social media for promotion tool</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Promoting the product through social media will raise sales volume</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>Using social media in promoting a product will expand market access</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
Analysis of Accounting Information System Implementation (as seen in Table 4):

1. An average number of entrepreneurs already used accounting information system in preparing financial statement but it is still in low numbers.
2. Batik entrepreneurs still has doubt that accounting information system will benefit the business, raise effectiveness and enhance the business quality.

The Result from Batik Artisans

Descriptive Batik Artisan. The sustainability of batik artisan as a profession can be seen from the total value of the median shown in Table 5. Result obtained showed the average batik artisan was willing to pass their skill to their family and others. The skill of craftsmanship showed in Table 5, shows that the majority of batik artisan have enough good skill in their works. Family relationship, the result showed in Figure 1, shows that the majority of the batik artisan have a family relationship between

Figure 1. The framework of research

<table>
<thead>
<tr>
<th>Table 5 Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Measurement</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>Missing</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Median</td>
</tr>
<tr>
<td>Mode</td>
</tr>
</tbody>
</table>

Notes: \(^a\) Multiple modes exist. The smallest value is shown.
the artisan and the entrepreneurs, as well as between the artisan themselves. Financial factor, the survey result showed that the modus of the factor is 1, it means that the significant factor to keep batik artisan to stay in the profession is the financial factor.

**Frequency Table**
As seen in Table 6, the sustainability of batik artisan as a profession was being measured by number 1 to 5, the result is better if it is closer to number 5. The result above showed 85% cumulatively, it means 85% of the batik artisan contribute to support the sustainability of their profession.

*Table 6*

**Sustainability of Batik Artisan profession**

<table>
<thead>
<tr>
<th>Sustainability Measurement</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid percent</th>
<th>Cumulative percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>2.5</td>
<td>1</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>3.0</td>
<td>2</td>
<td>5.0</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>3.5</td>
<td>3</td>
<td>7.5</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>4.0</td>
<td>7</td>
<td>17.5</td>
<td>32.5</td>
</tr>
<tr>
<td></td>
<td>4.5</td>
<td>16</td>
<td>40.0</td>
<td>72.5</td>
</tr>
<tr>
<td></td>
<td>5.0</td>
<td>11</td>
<td>27.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

*Table 7*

**Skill**

<table>
<thead>
<tr>
<th>Skill Measurement</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid percent</th>
<th>Cumulative percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>2.5</td>
<td>2</td>
<td>5.0</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>3.0</td>
<td>2</td>
<td>5.0</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>3.5</td>
<td>6</td>
<td>15.0</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>4.0</td>
<td>15</td>
<td>37.5</td>
<td>62.5</td>
</tr>
<tr>
<td></td>
<td>4.5</td>
<td>15</td>
<td>37.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
As seen in Table 7, the skill factor shows 75% as a result. This means that batik artisans are skilled in their works.

As seen in Table 8, family relationship results showed that 90% of respondents have a family relationship, it is between the batik artisans as well as between batik artisan and batik entrepreneurs.

As seen in Table 9, financial factor is the ultimate factor for respondents to continue their works, since the result showed 100%.

**Analysis Structural Equation Model (SEM)**

In the next step, this research explored the factors that affected the sustainability of batik artisan profession. Besides the financial factors that already showed 100%, this paper used Structural Equation Model (SEM) to analyse the other 3 factors which are skill, family relation, and sustainability as a latent variable. 203 respondents filled the questionnaire which was later calculated with AMOS software.

**Result for Batik Artisan**

On the first step, this research used the Measurement Model Test to check normality, validity and reliability test.

**Normality Test.** Data is considered as normally distributed if multivariate CR (Critical Ratio) Skewness value or curtsies are between -1.96 up to 1.96 (as per table $Z_{0.05}$ (Chahal et al., 2016). This research obtained multivariate CR value to be -0.489 which means that data is normally distributed.

**Validity Construct Test.** Confirmatory Factor Analysis (CFA) test aims to test validity and reliability as variable indicators in measuring variable latent. Validity value describes by Value of Standardised Regression Weights (SRW) more than 0.5 and CR value more than 1.96 or probability less than 0.05 (Chahal et al., 2016). Result of the test, shows all indicators are valid.

**Reliability Test.** Reliability is the consistency value from the indicators and
it is shown if AVE (Average Variance Extracted) > 0.6 (Nunnally, 1978) using the formula below:

\[
AVE = \frac{\Sigma \lambda^2}{\Sigma \lambda^2 + (1-\lambda^2)}
\]

All the values of AVE value of Variable Laten are > 0.6, it, therefore, means that all variables are reliable.

Structural Model Test. The Goodness of fit value is used to see the model feasibility from several calculation as per the above table (Awang, 2014). Figure 2 describes the model to be already fit and feasible. The next Parameter Estimation is some hypotheses shown below:

- H1: Family relationship has an influence on skill
- H2: Family relationship has an influence on sustainability
- H3: Skill has an influence on sustainability

The relation between variables could be seen from data in Table 10, it shows that the influence of family relation to skill is significant with estimation parameter value = 0.352. Therefore, H1 is accepted. P-value shows that the influence of family relation factor to the sustainability factor is significant with parameter estimation value of 0.251. Therefore, H2 is accepted. On the other hand, P-value shows the

Table 10

<table>
<thead>
<tr>
<th>Variable relations</th>
<th>Estimate</th>
<th>P-value</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skill &lt;--- Family_Relation</td>
<td>0.352</td>
<td>0.002</td>
<td>Significant</td>
</tr>
<tr>
<td>Sustainability &lt;--- Family_Relation</td>
<td>0.251</td>
<td>0.005</td>
<td>Significant</td>
</tr>
<tr>
<td>Sustainability &lt;--- Skill</td>
<td>0.092</td>
<td>0.216</td>
<td>Not significant</td>
</tr>
</tbody>
</table>
influence of skill factor to sustainability factor is not significant since the estimation value, P-value = 0.216, therefore, H3 is not accepted. Family relation factor significant to influence sustainability factor and skill but skill does not influence sustainability.

From Table 11, family relation has an influence on sustainability with value 0.331, and direct influence value of 0.293. It also has an indirect influence on Skill as 0.038. Meanwhile, family relation has an influence on skill with the value of 0.314. The summary on Descriptive Statistic from the result obtained discusses the following perspectives:

**Business Sustainability.** Most of the batik entrepreneurs strongly agree that their business in the batik industry is a heritage from the previous generation and will also pass down the business to their next generation. They are being supported by qualified batik artisans to produce a good quality of batik and they agree that based on a good relationship with batik artisans, they could maintain their business. Similarly, these entrepreneurs still have doubts about expanding their business outside Madura.

**Social Media as Promotion Tools.** Most of the batik entrepreneurs agree that social media has a significant impact on product promotion and they are starting to use social media to promote their product, but they assume that their employees still do not have sufficient knowledge in social media usage. Similarly, batik entrepreneurs agree that social media could beneficially impact and expand their market access but still doubt that it could raise their sales volume.

**Accounting Information System Implementation.** The average batik entrepreneur already used accounting information system in preparing their financial statement though the number of people that make use of this technique is still pretty low, as they still have doubt that Accounting Information System will benefit the business, raise effectiveness and enhance the business quality. Descriptive Statistics based on the result obtained above from Batik Artisan are discussed below:

**Sustaining the Batik Artisan Profession.** On the average batik, artisan are willing to pass their skill to their family and others.

**The skill of Craftsmanship.** Majority of batik artisans have adequate skill to produce high quality of batik.
**Family Relationship.** A good number of batik artisans have a good relationship with fellow artisans and entrepreneurs.

**Financial Factor.** Batik artisans stay in the profession owing to financial reasons. They need to earn the income as batik artisan and this factor is the strongest factor that influences the profession’s sustainability.

Based on SEM Analysis, the family relationship has a significant influence on skill and profession sustainability. Furthermore, skill does not have a significant influence on professions sustainability. The young generation who are already skilled in the art of batik craftsmanship, do not seem interested in becoming batik artisans, since these workers tend to earn low-income wages, compared to the regions minimum wage standard. Therefore the batik artisan as a profession cannot promise a bright future. Low labour wage is as a result of the low price tag associated with the sale of batik in Madura. This, however, is as a result of the fact that there is no institution guiding batik entrepreneurs.

**CONCLUSIONS**

Based on the objective of this study, which analysed the perception of Batik Madura entrepreneurs on several factors which are business sustainability, accounting information system and social media for their marketing strategy to expand the market access, it can be concluded that batik as a hereditary business should expand and develop its human resources through learning and development and through enhancing skills. The positive perception of the use of social media tools to expand the market access and raise sales volume should be used as an SM marketing strategy. The benefits for using social media as part of marketing tools include: (1) increased traffic (2) builds branding (3) online presence (4) building trust and personality (5) time and cost-efficient (Business Matters, 2017).

Based on the analysis, it can be concluded that batik entrepreneurs have a positive perception on the accounting information system. They believe that it will develop the financial report to be more structured and enhance the quality of the financial report. However, they still feel reluctant to use it. Based on the previous section data and result obtained, Batik SME in Madura should start having structured financial and accounting system, for accessing the relationship with banks. This will create an opportunity to get a lower Cost of Capital and could expand and growth of their business.

In Asia, start-up companies, in particular, are finding it increasingly difficult to borrow money from banks because of strict Basel capital requirements. Risky SMEs also face difficulty in borrowing money from banks. It is difficult for banks to evaluate SMEs since they often do not have structured accounting systems. Many SMEs in Asia borrow money by paying high-interest rates or offering costly collateral. Many banks prefer to lend to large enterprises rather than SMEs. The reason for this is that for large enterprises the financial statements are clearer and audited (Yoshino & Taghizadeh-Hesary, 2017).
Several factors are responsible for the sustainability of the batik profession such as family relationship, finance, skill and lots more. Most batik artisans are willing to transfer their knowledge to the next generation whether there is any form of family relationship or not. However, one of the strongest factors keep them in the profession is that of finance as they are able to earn contribute to their family welfare. This, therefore, means that batik artisans profession in Madura will be sustained based on local wisdom, good family relationship, and business based on the family system.

Financial Factor also become one of the significant factors why Batik Artisans stay their profession since more than 50% of the total population of the Indonesian population is junior high school graduated (Biro Pusat Statistik, 2015). To this set of people, getting a job that pays well is difficult. Since that already possess a skill which was passed down to them from their forefathers, they make use of it to survive. Another point that should be put into consideration is the fact that most times the wage paid to these artisans is pretty poor compared to the value of the artwork.

Batik Madura as part of the creative economy and cultural heritage, needs to be more flexible in making rules with regards to art and business. We are currently in the digital era where changes happen rapidly. Information technology and accounting information system are tools for business expansion and sustainability. Using these tools will, in the end, raise local community welfare and still maintain traditional values and preserve the batik culture as a national asset. The research limitation associated with this research work is that of limited materials used. Owing to the fact that there was little or no previous research work done on this topic. This research also recommends that an institution should be created which oversees and support batik entrepreneurs in enhancing their business, and in determining the selling price. Also, digital marketing needs to be encouraged and there should be public education or workshop on it. This will increase the number of goods sold daily and expand the market.

ACKNOWLEDGEMENT
The authors wish to acknowledge and thank all IMHA 2018 committee members and UPM Pertanika journal team that help publish this article.

REFERENCES


The Survival of Batik Madura in Digital Era


