UNIVERSITI PUTRA MALAYSIA

ECONOMIC CONTRIBUTION, INNOVATION AND LABOUR CREATION IN BATIK INDUSTRY

NOOR HASLINA MOHAMAD AKHIR

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ECONOMIC CONTRIBUTION, INNOVATION AND LABOUR CREATION IN BATIK INDUSTRY

By

NOOR HASLINA MOHAMAD AKHIR

Thesis submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Doctor of Philosophy

July 2017
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DEDICATIONS

First, thank to God for His blessings that have passed me to get to this stage of knowledge.

Second, million thanks to my parents (Mohamad Akhir B. Ghazali and Sarifah Bt. Awang), my husband (Rahaimee B. Abd. Rahim) and my daughter (Nurwafa Batrisyia Bt. Rahaimee) on a continuous effort in giving permanent supporting to reach achievements.

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“Thank you very much”
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ECONOMIC CONTRIBUTION, INNOVATION AND LABOUR CREATION IN BATIK INDUSTRY

By

NOOR HASLINA MOHAMAD AKHIR

July 2017

Chairman : Associate Professor Normaz Wana Ismail, PhD
Faculty : Economics and Management

Batik is one of the handicraft products that belongs to the textile-based category. Batik refers to fabric-dyeing method with the resist technique. Starting with small-scale activities, the batik industry has since developed into a successful rural industry, which is also known at the national level. The Malaysian Handicraft Development Corporation acknowledges batik as the primary contributor to the sales of handicraft products in Malaysia. Despite its positive performance in the local market, some batik entrepreneurships are still regarded as microentreprises in terms of small and medium enterprise (SME) business classification. Hence, the firms are expected unable to reach their full potential or can only gain day-to-day income. This then raises a question in regards to the connection between the batik industry and the Malaysian economy. Therefore, the first issue is on measuring the economic contribution of the batik industry to the Malaysian economy. However, due to the limitation of series data related to batik industry performance, the Malaysian Input-Output Table 2010 will be used to measure the variables. Through the industrial linkage model, this study found that batik industry contributes significantly through the backward linkage, indicating a stimulating growth in terms of benefit from the batik industry to the other sectors rather than the batik industry alone. Furthermore, decomposition analysis results show that the first-order effect of injection in the private consumption of batik in final demand contributes to second and higher-order effects in the other sectors of the Malaysian economic structure. This is due to the additional input that is required to satisfy the increase in output demand. This study offers a new finding for the input-output theory related interindustry transactions between batik industry and other production sectors in the Malaysian context.
The second issue highlighted in this study is related to the impact of innovation on batik firm performance. The evolution in the batik industry has led to innovation in the batik-making process, batik products, marketing and organisational methods. However, some batik entrepreneurs follow traditional approach to manage their firm activities. Meanwhile, the third issue addressed in this study is about labour creation in the batik industry. Being a labour-oriented industry, batik entrepreneurs should have enough workers to manage each stage in the batik-making process and save the time, so that the number of production can be increased. However, at present, a majority of employees consist of older folks and contract workers (daily wage). Being a rural industry, batik-making faces intense competition that may hinder its growth. In response to both issues, this study used data acquired from face-to-face survey in Kelantan and Terengganu to analyse the impact of innovation to the performance of batik industry and to determine which firm resources that influence labour creation in the batik industry. There are 62 batik firms in Kelantan and Terengganu that participated in this study. For the second objective, results from the ordinary least square method reveal that only product innovation has significant impact on batik firm performance. This study also offers a more detailed view on the effect of all four types of Schumpeterian innovation on batik firm performance. By using the same method, the third objective produces evidence for resource-based theory on labour creation. Results show that firm age and firm sales greatly influence labour creation in batik industry. The information about contribution, firm performance and labour creation in batik industry is important to help batik entrepreneurs to enhance the economic well-being of local communities in terms of job opportunities and household income. Overall, the batik industry is not only valuable to the development of Malaysian cultural heritage, but it is also an important asset to the country’s economic growth in the future, through its contribution as a successful rural industry.
Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

SUMBANGAN EKONOMI, INOVASI DAN PENCIPITAAN BURUH DALAM INDUSTRI BATIK

Oleh

NOOR HASLINA MOHAMAD AKHIR

Julai 2017

Pengerusi : Profesor Madya Normaz Wana Ismail, PhD
Fakulti : Ekonomi dan Pengurusan

Istilah kedua yang diketengahkan dalam kajian ini adalah berkaitan dengan kesan inovasi kepada prestasi syarikat batik. Evolusi dalam industri batik memba...
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Last but not the least, I would like to thank my loving family: my parents, my husband and my daughter as well as my brother and sister for supporting me spiritually throughout writing this thesis and for my life in general.
I certify that a Thesis Examination Committee has met on 26 July 2017 to conduct the final examination of Noor Haslina binti Mohamad Akhir on her thesis entitled "Economic Contribution, Innovation and Labour Creation in Batik Industry" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

Members of the Thesis Examination Committee were as follows:

Mohd Shahwahid bin Hj Othman, PhD
Professor
Faculty of Economics and Management
Universiti Putra Malaysia
(Chairman)

Khairil Wahidin bin Awang, PhD
Associate Professor
Faculty of Economics and Management
Universiti Putra Malaysia
/Internal Examiner

Shaufique Fahmi bin Ahmad Sidique, PhD
Associate Professor
Faculty of Economics and Management
Universiti Putra Malaysia
/(Internal Examiner)

Indah Susilowati, PhD
Professor
Diponegoro University
Indonesia
/(External Examiner)

\[Signature\]

NOR AMAL AB. SHUKOR, PhD
Professor and Deputy Dean
School of Graduate Studies
Universiti Putra Malaysia

Date: 28 September 2017
This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

Normaz Wana bt Ismail, PhD
Associate Professor
Faculty of Economics and Management
Universiti Putra Malaysia
(Chairman)

Shivee Ranjanee a/p Kaliappan, PhD
Senior Lecturer
Faculty of Economics and Management
Universiti Putra Malaysia
(Member)

Rusmawati binti Said, PhD
Associate Professor
Faculty of Economics and Management
Universiti Putra Malaysia
(Member)

ROBIAH BINTI YUNUS, PhD
Professor and Dean
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Signature : _______________________________________
Name of Chairman of Supervisory Committee : Associate Professor Dr. Normaz Wana bt Ismail

Signature : _______________________________________
Name of Member of Supervisory Committee : Dr. Shivee Ranjance a/p Kaliappan

Signature : _______________________________________
Name of Member of Supervisory Committee : Associate Professor Dr. Rusmawati binti Said
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<th>Acronym</th>
<th>Description</th>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>IO</td>
<td>Input-Output</td>
</tr>
<tr>
<td>MHDC</td>
<td>Malaysian Handicraft Development Corporation</td>
</tr>
<tr>
<td>MO</td>
<td>Market Orientation</td>
</tr>
<tr>
<td>MSIC</td>
<td>Malaysia Standard Industrial Classification</td>
</tr>
<tr>
<td>NCI</td>
<td>National Craft Institute</td>
</tr>
<tr>
<td>NGO</td>
<td>Non Governmental Organization</td>
</tr>
<tr>
<td>OLS</td>
<td>Ordinary Least Squares</td>
</tr>
<tr>
<td>SMEs</td>
<td>Small and Medium Enterprises</td>
</tr>
<tr>
<td>SMIDEC</td>
<td>Small and Medium Development Corporation</td>
</tr>
<tr>
<td>SOCSO</td>
<td>Social Security Organization</td>
</tr>
<tr>
<td>SOP</td>
<td>Standard Operating Procedure</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
</tr>
<tr>
<td>VIF</td>
<td>Variance Inflation Factor</td>
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CHAPTER 1

INTRODUCTION

1.1 Introduction

The chapter is structured as follows. The background of study on batik industry is presented in Section 1.2. Following background of study, Section 1.3 presents the statement of the research problems and section 1.4 presents the objective of study. Significant of study will take place at the next section. In the last section, organisation of study is presented.

1.2 Background of the Study

Malaysia is rich with an abundance of craft resources and one of them is batik craft. Batik is a handicraft product that belongs to the textile-based category (Amin, 2006). In fact, it refers to a fabric-dyeing method that uses the resist technique (Yunus, 2011). Commonly, people recognise batik as decorated textile from South East Asia, because of its unique designs and colours (Kheng, 2002), as well as various processes involved in batik-making (Azmi et al., 2009; Yunus, 2011).

The local batik industry in Malaysia has long started since the 15th Century of the Common Era (Azmi et al., 2009). Starting from small-scale activities, the batik industry has developed into a successful rural industry and is also known at national level (Nordin and Bakar, 2012). Looking at the Malaysian economic structure, this industry falls under the manufacturing sector of Small and Medium Enterprises (SMEs) (Ismail, Mokhtar, and Ali, 2013; Hairuddin, Noor, and Malik, 2012; Mokhtar and Ismail, 2012). The Small and Medium Industries Development Corporation (SMIDEC) categorises SME businesses into three levels, namely microenterprise, small enterprise, and medium enterprise (refer Table 1.1). Being a textile-based industry that is classified in the manufacturing sector, batik firm is any enterprise with sales turnover not exceeding RM50 million per annum or has full-time employees less than 200.

In Malaysia, SMEs play a role in the nation’s economy and become a major source of economic contribution. For instance, they contribute to the economic growth employment. The SME Annual Report 2013/2014 highlights that since 2004, SMEs in Malaysia has surpassed the country’s economic growth in total, despite the difficulties in the global business environment. Looking at the economic sector performance, the increase of SME share in Gross Domestic Product (GDP) from 2010 to 2014 was contributed by the construction and services, as well as manufacturing sectors. From the Economic/SME Census 2011 conducted by the Department of Statistics Malaysia, the
The strong performance of the manufacturing subsector in 2010 was due to growth in sectors such as textiles and apparels (26.5 percent), food and beverage products (15.9 percent), and fabricated metal products (10.5 percent). In 2012, the Malaysian Industrial Development Authority (MIDA) has included batik in the list of promoted activities and products in the manufacturing of textiles and textile products. The Annual Survey of Manufacturing Industries 2013-2015 found that the gross output of textiles, wearing apparel, and leather products increased from RM 12.2 billion in 2012 to RM 14 billion in 2014. In terms of employment, there are 6.2 million SME employees, reflecting an addition of 1.1 million workers in the SME job market in 2014 (SME Annual Report 2014/2015).

Table 1.1: SMEs Definition: Annual Sales Turnover and Employees

<table>
<thead>
<tr>
<th>Size</th>
<th>Micro</th>
<th>Small</th>
<th>Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sales turnover</td>
<td>Employees</td>
<td>Sales turnover</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>Less than RM300,000</td>
<td>Less than 5 employees</td>
<td>RM300,000 to &lt; 15 million</td>
</tr>
<tr>
<td>Services and Others</td>
<td>RM300,000 to &lt; 3 million</td>
<td>5 to &lt; 30 employees</td>
<td>RM3 million to ≤ 20 million</td>
</tr>
</tbody>
</table>

Source: SME Annual Report 2013/2014
Notes: < is less than, ≤ is not exceeding

Due to contribution of SMEs to the nation’s economic growth and employment, the batik textile industry is expected to have an opportunity to contribute to employment among local communities and SME’s revenues, thus becomes a contributor to the Malaysian economic development. It was also discovered that the batik industry has the potential to contribute to other industries such as tourism (Sofian and Azman, 2010; Ahmad et al., 2011; Choy, 2013) and fashion industries (Yunus, 2011). However, there is no specific data related to batik industry in the SME Annual Report to directly measure the contribution of batik industry to the Malaysian economy. The SME Annual Report only shows the contribution of textile manufacturing to the Malaysian economy. Hence, other data types that represent batik industry at the national level will be used. This includes the Malaysia Input-Output (IO) Table 2010 that provides data regarding batik-making, as part of textile manufacturing. The input-output table enables the contribution of batik industry to be evaluated via interindustry transactions in the Malaysian economic structure.

Batik-making has been in the market since last 2000 years (Robinson, 2001), its techniques require batik entrepreneurs to be highly skilled, creative, and innovative to produce excellent quality products, especially in terms of designs, types of goods, durability, and usefulness, for them to be successful and stay competitive in the industry. There is a link between creativity, innovation, and economic performance. Creativity
refers to the generation of new ideas (UNCTAD, 2008), while innovation is the successful utilisation of new ideas (Okpara, 2007). Potecea and Cebuc (2010) highlighted that the reasons for batik firms to stay innovative are to increase market share, capture new market, improve product quality, provide better product choice, replace outdated products, and reduce environmental impact. Thus, creativity affects the economy through successful utilisation of creative ideas to provide better alternative for commercialisation, which is known as innovation in stimulating market expansion with new values. As batik is a creative craft, the batik industry therefore requires creative thinking to generate better ideas, as well as innovation to integrate those ideas and transform them into valuable things prior to commercialisation. This in turn can assist batik firms to boost their performance through higher demand, thus lead to higher sales.

The introduction of new or improved process shows that batik techniques have evolved from the original approach (Dawa, 2002). Throughout the evolution process, the batik industry has two schools of thought: first is that the modern batik entrepreneurs allow the use of machine in the batik-making and second is the traditional batik entrepreneurs who preserve the aestheticity of batik as handmade product. In the local market, a majority of batik entrepreneurs prefer to use traditional methods such as hand drawing or block printer in batik-making (Hairuddin, Noor, and Malik, 2012). These methods are labour intensive, because of less advanced technology. Most of the labour-intensive methods are used in rural areas, so the growth in the batik industry creates job opportunity for the locals (Redzuan and Aref, 2009).

The batik industry is not only valuable to the cultural heritage development; it is also an asset to the country’s economic growth in the future. Developed by small and medium enterprises, it is crucial to understand the performance, contribution, innovation, and labour aspects in developing the local batik industry. The study contributes to the literature in a number of ways. First, it offers new findings pertaining to the transactions between batik industry and other production sectors that are underrepresented in Malaysia. Total sales is one of the firm performance relevant indicators and it is therefore used to measure firm performance. Second, this study offers a detailed view of the impacts of all four Schumpeterian innovation types on batik sales. Third, statistical evidence for corporate sources and labour creation in batik firms are also discussed in this study.

1.2.1 The Performance and Contribution of Craft Industry

In Malaysia, the Malaysian Handicraft Development Corporation (MHDC) is the main government agency that serves to develop and coordinate activities and programmes to enhance the status, performance, and contribution of craft industry in the national economy. MHDC implements various initiatives and methods at domestic and global levels to ensure that craft industry keeps moving forward in the future. Figure 1.1 shows the performance of craft sales in Malaysia since 2009 to 2013.
Figure 1.1: Malaysian Handicraft Sales (RM million)
Source: Series of Malaysian Handicraft Annual Report, 2009-2013

Figure 1.1 shows that the sales of craft increased to RM341.9 million in 2012, showing a rise of RM198.3 million as compared to 2011 (RM143.5 million). The sales then increased to RM409 million in the following year. The initiatives and methods in the development programme include the strategic direction from 2010-2016, which encompass marketing channels in domestic and international markets, the introduction of new craft products in the market, besides enables craft entrepreneurs to produce quality products to meet consumer demand, and increases trained manpower in the craft industry. All these strategies produce positive impact to the national craft industry. As part of the textile-based products, batik has the potential in product development by presenting new designs to be commercialised in the market. Therefore, the government has implemented research and development (R&D) programme with the aim to produce competitive batik products and diversify craft product line according to their market segment, to cater both domestic and international demands. Table 1.2 illustrates the product development that consists of creation and commercialisation of new designs from 2011 to 2013.

Table 1.2: Number of New Product Designs and Designs Commercialized by Craft Categories

<table>
<thead>
<tr>
<th>Craft Categories</th>
<th>Number of New Designs</th>
<th>No. of Designs Commercialized</th>
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</thead>
<tbody>
<tr>
<td>Textile-based</td>
<td>2,125</td>
<td>2,435</td>
</tr>
<tr>
<td>Earth-based</td>
<td>1,183</td>
<td>547</td>
</tr>
<tr>
<td>Metal-based</td>
<td>945</td>
<td>447</td>
</tr>
<tr>
<td>Forest-based</td>
<td>1,674</td>
<td>1,633</td>
</tr>
<tr>
<td>Total</td>
<td>5,927</td>
<td>5,062</td>
</tr>
</tbody>
</table>

Source: Series of Malaysian Handicraft Annual Report, 2011-2013
In 2011, 5,927 new designs were produced by the Malaysian Handicraft, in collaboration with local craft entrepreneurs, where 825 designs were commercialised. Out of that, 38 percent are textile-based designs. In 2012 and 2013, the percentage of new textile-based designs was higher than other categories. For commercialised designs, the percentage of textile increased substantially in 2012 from 2011, however the percentage decreased in 2013, which is consistent with the contraction value of the overall performance. Table 1.2 shows that most of new products that incorporate new designs come from textile products. To support new product development in textile-based activities, MHDC has organised and participated in fashion shows at domestic and international levels. Batik products had been showcased in 17 fashion shows, with 1,059 collections in 2012 (Malaysian Handicraft Annual Report, 2012). Among fashion shows that raise the prestige of batik products are the National Craft Day Fashion Show, as well as the one held in-conjunction with Prince William & Kate Middleton’s visit to Malaysia, the Malaysian London Nite & Malaysian London Weeks 2012, and the Miss Tourism International Final 2012. To preserve and enhance the quality of batik products, MHDC provides laboratory to upgrade the quality of dyeing so that the products can meet the international standards for batik, which is MS692: 2007.

From the Malaysian Handicraft Annual Report 2009-2013, the current study attempts to explain the performance level in terms of production or sales and identify the number of workers in the batik industry. The data in the annual report only capture performance by craft category in general, such as textile-based, earth-based, metal-based, and forest-based. Referring to the key performance indicator in the local craft industry, MHDC acknowledges batik as the primary contributor to the craft sales in Malaysia (Buletin Kraftangan 03, 2012).

On the other hand, batik is regarded as highly valuable for the Malaysian heritage (Hairuddin, Noor, and Malik, 2012; Mokhtar and Ismail, 2012). As batik is a cultural heritage product1, it can support and promote cultural tourism activities in Malaysia. According to the Ninth Malaysian Plan (2006-2010), the tourism industry continues to be the main foreign exchange earner, contributing to growth, investment, and employment, as well as strengthening services account of payment balance. According to Tourism Malaysia, the tourists who visit Malaysia increased from 5.56 million in 1998 to 25.72 million in 2013, contributing to the increase of revenue from RM8.6 billion in 1998 to RM65.44 billion in 20132. The resilience of the tourism industry is attributed to the active participation of private and public sectors in promotion and marketing, diversification of target markets, and improvement of the competitiveness of tourism products and services to keep attracting tourists to visit Malaysia. Thus, the growth in

1 United Nations Educational, Scientific and Cultural Organization (UNESCO) has classified Indonesian batik as a part of the “intangible cultural heritage of humanity”, one of the traditions or living expressions that contains symbols and a philosophy of the human life cycle that is important in shaping the identity of society. The global recognition by UNESCO will give the old tradition of batik some degree of protection under the UNESCO charter. In the meantime, this recognition creates better opportunities for the Malaysian batik to develop in a more advanced manner, not only locally, but also internationally.
2 www.corporate.tourism.gov.my
the batik industry can offer attractive tourism products that will further boost the country's tourism industry, thus contribute to the Malaysian economic growth.

1.2.2 Creativity and Innovation in the Batik Industry

Batik techniques are related to textile decoration, with beautiful motifs and high quality colours. Bakhtiar et al. (2010) stated that batik is classified as a work of art on cloth. It provides contact with creative potential that lies within all of us. Noor and Nordin (2012) mentioned that batik is an indigenous cultural artefact that is influenced by creativity of an individual or collective human action, which is inspired by natural surroundings. Okpara (2007) and Racela (2014) believe that innovation begins with creative ideas. Creativity is associated with cognitive process such as generation of ideas that subsequently turns into innovation, which is action-oriented when the creative ideas are implemented.

The combination of creativity and innovation creates an opportunity for batik entrepreneurs to produce a new range of batik products beyond its traditional use, which is initially designed for clothings, such as loose knee-length tunic (baju kurung) and woman’s caftan, to more innovative products such as soft furnishings and decorations, as well as modern attire such as ties, shawls, and scarves. The earliest forms of Malay batik is known as the rainbow batik (pelangi), it was produced during the reign of Sultan Zainal Abidin II (1773-1808) with no use of wax as resist material, that incorporated other techniques such as the tie-dye technique (Osman, 2002). Furthermore, via innovation, the batik technique diversifies to block batik, hand-drawn batik, screen batik, and recently digital batik. In the making of block batik for instance, the block was carved from wood, before being substituted by zinc, iron or copper blocks used nowadays. Meanwhile, the making of digital batik depends on modern technology or machine in every stages of batik-making process. Some batik entrepreneurs also make significant improvement in batik designs, such as the introduction of abstract, geometry, stripe, as well as designs that reflect natural surroundings rather than using common designs such as flowers or leaves. In the colouring process, batik entrepreneurs use natural dye or chemical dye or combination of both. With the aim to enhance the competitiveness of Malaysian batik, batik entrepreneurs, the Malaysia Handicraft, and the National Craft Institute have developed new batik techniques such as overlapping, crack, silica, discharge, and scratch. Designs, colours, and techniques add value to the artwork, which produce better quality batik (Azmi et al., 2009).

In the last few years, a majority of local batik entrepreneurs used direct channels to gain access to the market or sell directly to wholesalers and retailers (Amin, 2006). Recently, due to widespread information, communication, and technology development, new marketing and promotional tools such as media and internet are used by batik entrepreneurs. Local batik entrepreneurs manage their firm manually or use traditional methods in running their own business or let their family members manage the business without involving professional workers. Ismail et al. (2012) and Meutia and Ismail
(2012) believed that to sustain the competition and face the uncertainty in consumers’ preference, firms need to develop good strategy in decision-making, business planning, as well as interaction with employees, customers, funding organisations, the government, and professional organisations.

In fact, innovation is carried out in the batik industry through batik-making process, batik products, marketing, and organisational methods. The batik industry is expected to better expand if innovation is applied in producing unique batik products. This offers the best opportunity for the society to acquire something which is never made before to further stimulate economic growth (Lopez-Claros, 2011).

1.2.3 Roles of Labour in the Batik Industry

In Malaysia, most batik entrepreneurs still consider batik as art textile that its authenticity as handmade product should be retained. Amin (2006, p.1) defines the craft industry as “a group of individuals and companies who are involved in the design, production, and/or marketing of products which display unique and distinctive characteristics of design, technique, and presentation where useful artistic and decorative objects are made completely by hand or using only simple tools, which can be aesthetic, artistic, creative, culturally attached, decorative, functional, traditional, religiously, and socially symbolic and significant”. Yojana and Sansad (2006) define craft products as artistic and traditional handmade items which are created by simple tools. This reiterates the role of batik workers in all stages of batik-making, from drawing, followed by colouring, fixing, dewaxing, washing, and finally, drying. Although there are modern tools that are created for some batik techniques such as canting for hand-drawn batik, copper block for block batik, and banner screen for screen batik, the authenticity of each technique in producing handmade batik is still preserved by batik workers, especially in drawing and colouring processes. Their role in the drawing process includes: (i) canting to make creative patterns on hand-drawn batik fabric; (ii) a funnel pen to create stencil screen design on a banner screen and then a squeegee to force the ink through the fine-meshed screen onto the fabric in screen batik production; and (iii) block patterns stamped on fabric. The batik-making is unique, when every workers in each batik process are specialised, in which they are not involved in all stages in batik-making. Hence, they master a particular process and this helps to reduce the time needed to produce a piece of batik fabric. With the aim to retain the identity of handmade products, this industry should be equipped with enough workers to manage each stage in the batik-making process.

Classified as “intangible cultural heritage of humanity”, the knowledge and skills to produce batik is inherited from the ancestors, which is passed on to descendants later on. As of today, this heritage industry still survives and become a source of the various contributions to the national economy. Thus, the new generation workers have to ensure that the knowledge and skills in batik-making will not disappear in the future. As a form of textile art, the skills of batik workers, innovation within firm, as well as experience in batik will place Malaysian batik as high quality handmade product (Azmi et al., 2009).
To sustain and stay competitive in the future, the industry should devise a good strategy in human capital development. In fact, the government provides formal education and trains new workforce in batik craft at the National Craft Institute (NCI), rather than relying solely on inherited knowledge and skills. NCI is a craft education centre, with the aim to produce graduates who are knowledgeable, highly skilled, creative, innovative, and competent to meet the needs for skilled workforce in the craft industry. Although digital batik depends on modern technology and contradicts with the principle held by most local batik entrepreneurs in the drawing process, batik workers still need to have skills, creativity, and innovation to ensure that the machine will print high quality designs on digital batik fabric. This indicates the importance of workers in the batik-making process.

1.3 Statement of the Research Problems

The government implements many measures to facilitate and develop the local batik industry. The government’s commitment to develop the local batik industry is illustrated via a circular for batik to be worn by public officials every Thursday since 2008 (Surat Pekeliling Perkhidmatan Bil. 1 tahun 2008). Based on the key performance indicator in the local craft industry, the MHDC acknowledges batik as the main contributor in improving craft sales in Malaysia. In addition, batik is projected to lead the Malaysian craft sales in reaching the set target of RM1 billion in the year 2016 (Buletin Kraftangan 03, 2012). The target signifies the importance and potential of batik industry in the development of Malaysian craft, as well as rural economy in this country. Although the local market shows positive outlook, some batik entrepreneurs are still categorised as microenterprise owners, according to the SME classification (Hairuddin, Noor, and Malik, 2012). As rural industry, batik will face intense competition and challenges that hinder its growth. Batik firms are unable to reach their full potential or are restricted to only have day-to-day income (Mokhtar and Ismail, 2012). It raises the issue of how the batik industry is associated with the Malaysian economy.

Therefore, the first issue addressed in this study is on measuring the economic contribution of the batik industry to the Malaysian economy. Throughout the years, this industry contributes by creating job opportunity for local communities and boosting the country’s fashion and tourism industries. However, it is difficult to directly measure the contribution as there is no series data regarding the performance of batik industry, even in the SME Annual Reports of Malaysia or Malaysian Handicraft Annual Reports. Therefore, the Malaysian Input-Output Table that has the data is used to measure the economic contribution of batik industry to the Malaysian economy, which is through interindustry transactions between the batik industry and other production sectors in the Malaysian economic structure. Therefore, there is a need to identify the contribution of batik industry to the Malaysian economy. Does batik industry contribute to the Malaysian economy? How does the batik industry contribute to the Malaysian economy?
The second issue highlighted in this study is the impact of innovation on batik firm performance. At firm level, innovation is referred as changes in firm activities that encompass product, process, organisation, and marketing, with the objective to improve the firm performance (OECD and European Communities, 2005). However, some batik entrepreneurs tend to adopt traditional approach in managing firm activities. The craft items are designed and created to fulfil the local customer preference and eventually sold locally and nationally (Redzuan and Aref, 2011). Inherited from ancestors to the next generation, most of batik firms are fully managed by family members. Due to little knowledge in information technology (IT), they record their sales and credit manually or use 'middleman' services to promote their batik products on social network like Facebook and blogs (Hairuddin, Noor, and Malik, 2012). Meanwhile, OECD (2000) acknowledges that innovation is critical in determining firm success. Therefore, there is an issue related to innovation and firm performance: does innovation significantly influence batik firm performance?

The third issue addressed in this study is labour creation in the batik industry. Batik techniques are labour intensive, in which those involved are open to less radical approaches. Most entrepreneurs are not interested in using modern machines to produce batik. They believe that a high dependency on machines could jeopardize the traditional aesthetic and cultural value, the identity of the product, the skills of batik makers, and the originality of batik as a handmade product (Redzuan and Aref, 2009; Hairuddin, Noor, and Malik, 2012). With a sufficient amount of workers to manage each batik-making stage, batik entrepreneurs can save time and increase the number of production. However, at present, a majority of employees are older folks (Redzuan and Aref, 2011), who are hired as contract workers. This may reduce the production at present and in the future. In terms of demand, Malaysian batik has high demand, especially among government employees, as well as local and foreign tourists from Asia, Europe, Middle East, Africa, and United States of America (Malaysian Handicraft Annual Report, 2014). Therefore, batik entrepreneurs need additional workers to cope with the market demand. Nonetheless, low capital and credit ability can restrict batik entrepreneurs from having sufficient workers thus they can only produce batik based on order, while keeping certain pieces of batik as samples (Hairuddin, Noor, and Malik, 2012). This issue is related to labour creation in the batik industry: what are firm resources that can significantly influence labour creation in batik firms?

1.4 Objective of Study

The general objective of current study is to investigate economic contribution, innovation, and labour creation of batik industry in Kelantan and Terengganu. Meanwhile, the specific objectives are highlighted as follows:

1. To measure the economic contribution of batik industry to the Malaysian economy through interindustry transaction using the input-output technique.
2. To analyse the impact of innovation on the performance of batik industry.
3. To determine the firm resources that influence labour creation in the batik industry.

1.5 Significant of Study

The findings from this study will benefit the society and the country, given that batik industry plays an important role in the Malaysian cultural heritage development and is a source of earnings. First, at the national level, the findings are expected to provide valuable information to the government regarding economic activities in rural areas. The findings related to firm performance, contribution to the country, innovative activities, and employment level in the batik industry will be the input for the government to formulate strategic planning and develop policies in rural areas. The aim of this study is consistent with the Eleventh Malaysia Plan’s, which is to ‘anchor growth on people’, demonstrating that the national growth is not only reflected by GDP growth or per capita income, but it is also represented by the concept of “people’s economy” or “people’s wellbeing”. An increase in national income should be followed by improvement in the quality of life. The growth in the batik industry will assist the government in achieving the target to reengineer economic growth for prosperity by increasing the demand for SME products, especially at the microenterprise level.

Second, this study is undertaken to find out the contribution of the batik industry to the Malaysian economy. The results will provide understanding to policymakers regarding the importance and contribution of batik industry to other production sectors in the Malaysian economic structure despite being a rural industry. The findings are expected to provide further understanding in the batik industry development to all parties involved, especially batik entrepreneurs and MHDC, on the relationship between innovation and batik firm performance. In general, the batik industry is left behind in terms of innovation, as it still adopts traditional approach in firm activities. This study is important to present to what extent innovation is implemented in the local batik industry. The area of study is related to the Malaysia’s National Missions to become a developed country, by upgrading the country’s capacity in knowledge, creativity, and innovation, as well as having ‘first-class mentality’. At present, Malaysia places innovation at the core of development and reformation agenda, to propel us in becoming a high income nation by 2020. A review of past economic activities of countries such as Korea, Germany, Japan, Taiwan, and China found that their economic progress was based on the agricultural sector. However, they have progressed to an economy that emphasises on high level of knowledge, skills, innovation, and expertise. Thus, this study will help us to understand how innovation can be embedded with traditional methods and be developed within the batik industry.

Fourth, this study will provide information regarding employment issues in the batik industry, especially on the factors that influence labour creation. The uniqueness of this industry is its significance on the livelihood of local communities in terms of economic variables such as job opportunities and household income. Information pertaining to the
labour creation factors in the batik industry is crucial to help batik entrepreneurs in upgrading economic well-being of local communities. A good job prospect and income will prevent younger generation from migrating to other places to seek employment. The ability to retain highly-educated individuals, especially those who are skilled, knowledgeable, technologically-equipped in batik in a village is regarded to be positive in the long-term development of the batik industry. A sustainable growth in the batik industry in the East Coast regions will strengthen the economic corridors of batik to fuel regional development.

Next, this study will contribute to data collection in the batik industry, especially on economic values such as firm sales, product development, and number of workers. Finally, the findings will help the government and relevant agencies to understand the potential and challenges faced by this industry. The government can then form policies that are related to the development and preservation of national heritage programme as an effort to ensure batik entrepreneurs have access to economic opportunities and future generations will view batik as a Malaysian heritage. In addition, batik has a bright future when it is identified as one of the creative industry activities. Batik features which are related to creative, cultural and economic aspects will push this creative craft to be a driver in the Malaysian craft industry at both national and international levels in the future.

1.6 Organisation of Study

This study is divided into six chapters. Chapter One introduces the study background, the problem statement, research objectives, as well as the significance of the study. The second chapter focuses on the development of batik industry in Malaysia. There are four subsections in Chapter Two namely definition and concept of batik, batik-making process, the institutional support in the craft industry, and batik as cultural heritage. Chapter Three reviews literature that are related to the contribution of batik to economy, innovation, and firm performance, as well as labour creation in SMEs.

Chapter Four discusses research methodology and provides detailed techniques that are used to address the research questions. The following chapter discusses and elaborates the findings to identify if the objectives have been achieved. The final chapter presents conclusion and recommendations. The recommendations are for government, relevant agencies, and batik entrepreneurs to consider in developing the batik industry in Malaysia.
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