Building a Learning Society in the Design Field for Batik Craftworkers in Indonesia

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Design has become an important issue in the era of competition, especially in Indonesia, which articulated that small and medium enterprises (SMEs) were one of its pillars, in order to build the national economy. Attractive conditions were provided for SMEs in the textile industry, a sub-sector of which is the batik industry, which produces a distinctive cloth that characterises the culture of the nation of Indonesia, and has been recognised by UNESCO by being named one of the Masterpieces of the Oral and Intangible Heritage of Humanity in the nation of Indonesia. With regard to the UNESCO award, it is important to focus on the batik craftsmen to realise that batik design is recognised globally. Thus it is vital to increase awareness of efforts by craftsmen to develop competency standards for batik design in order to compete in the global world. By drawing attention to batik craft workers, this article proposes a model that leverages batik craftsmen striving to make batik design, with attention to adult learning characteristics, the performance characteristics of batik design in an era of competition and efforts to build a learning society.

Key words: Learning society, batik craftsmen, adult learning, adult performance, design characteristics.

Introduction

Lifelong education (LLE) offers a forum for communities to improve the lives of their members (Abdulhak, 2002; Kamil, 2011), by changing lifestyles and behaviours through fostering learning (Sudjana, 2010; Suryadi, 2009; Faure et al., 2013). LLE has become an important means for the community, government and industry to enter the era of globalisation. In particular, it has helped Indonesia to face the Asian Economic Community (AEC), which is its vehicle for generating competition through services as well as products.
on the free market. As one of the Member Countries of the Association of Southeast Asian Nation (ASEAN), in 2015 Indonesia entered the global market era of so-called AEC. Indonesia’s involvement in the production of market areas and services is extensive, as it has a huge largest consumer base and its total population is expected to reach approximately 295 million, amounting to 41 per cent of the total population of ASEAN, between 2030 and 2035 (UNDP, 2015). Indonesia’s population growth rate, based on approximately 23 million people in 2010, was 1.38 per cent between 2010 and 2015, but this is predicted to decline to 0.62 per cent from 2030–35 (BAPPENAS, 2013). Table 1 presents a summary of the growth of the population of Indonesia.

Table 1: Indonesia population growth, 2010–35

<table>
<thead>
<tr>
<th>Year</th>
<th>Population (Thousand)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>238,518,8</td>
</tr>
<tr>
<td>2015</td>
<td>255,416,7</td>
</tr>
<tr>
<td>2020</td>
<td>271,066,4</td>
</tr>
<tr>
<td>2025</td>
<td>284,829,0</td>
</tr>
<tr>
<td>2030</td>
<td>296,405,1</td>
</tr>
<tr>
<td>2035</td>
<td>305,652,4</td>
</tr>
</tbody>
</table>


The population became the main capital in the face of a free market, as Indonesia needed to be able to produce goods and services that would be ready to compete with those of other countries, to provide for its own population. In a free market society, government and industry are required to produce goods and services that meet production (Juran, 2009) and that are in accordance with the needs of consumers for quality (Manalo & Manalo, 2010; Sharma, n.d.; Kumar, 2014), with suitable price levels for consumers (Manalo & Manalo, 2010; Sharma, n.d.; Kumar, 2014). They also need to be able to fulfill orders on time, which (Manalo & Manalo, 2010; Sharma, n.d.; Kumar, 2014) and be responsive to the changing needs of consumers, as well as changes in the business environment (Juran, 2009). Quality, price, delivery and service are among the keys to competition in the era of the MEA, so people began to change their viewpoints and thinking from a local to a global focus, and realised that new skills were required.

Competition in a free market, strongly influenced by the presence of human resources, requires being able to understand and operate the factors of quality, cost, delivery and service (QCDS) consistently and continuously (Power, 2000). Human resources capable of meeting QCDS requirements will determine the level of economic growth and a country's competitiveness. Economic growth is influenced by the level of education and skills possessed by human resources (ADB, 2015), including research skills and the ability of individuals to perform tasks quickly, accurately and in accordance with the needs of the
consumers, without intensive supervision. Workers need to produce goods or services in accordance with the rules set by the company and the market (ADB, 2015).

With regard to mobilising SMEs to provide balanced capability with large industry, several drawbacks should be noted with respect to the expansion of SMEs in Indonesia (Tambunaan, 2002): a limited level of human resource education, especially formal education, including the ability to see business opportunities; poor productivity; a poor work ethos and ineffective discipline; exploitative use of labour; use of unpaid family members as employees; low added value that can’t be measured; and inadequate regulations. At the moment the markets not only expect products and services that are able to meet local and export needs, but these have to increase to enhance quality of people’s lives (UNESCO, 2014). Quality is key to defeating the competition.

Value creation cannot be separated from creativity, both individually and collectively as a state (Schwab, 2015). The United Nations Development Programme (UNDP), and the World Economic Forum (WEF) state that creativity is more important to a country than size advantage, particularly in terms of quality of life, as evidenced by the emergence of countries that excel in a globally competitive market. On the Human Development Index (HDI), Indonesia ranks 110 (UNDP, 2015), while the Global Competitiveness Index ranks Indonesia at number 34 (Schwab, 2015).

One of the products of creativity is design, which is the process of developing a plan for a product, service or system component (Florida & Tinagli, 2004). Creativity is essentially an individual’s or a group’s ability to generate new forms. This process should pay attention to four factors: design, function, material and aesthetic values (USAID, 2008), so that the product is able to compete on the global market (Rodgers, 2005).

Design is one competence of a state (Burns, 2009), which is required for effective competition in the era of AEC (Crawford & Anthony, 2008; Cross, 2000). It is essential to build awareness of the importance of design as a competence in order to improve a state’s quality of life (Dealtry, 2009).

In this study, the term ‘design’ is defined as an activity undertaken by individuals or groups to absorb the needs of consumers, who use specialized skills combined with creativity in professional design activities (Lewis & Bonnollo, 2002; Popovic, 2004). The era of globalization has spawned competition, where products and services that are sold to the market must have a high standard (Thomases, n.d.). Quality products are generally referred to as those geared to the needs of consumers in a culture (Button, 2000). The era of competition acts to improve quality of life through producing competitive products and services that can be accepted by the market. However, many SMEs have not been able to
answer the challenge of the global market, and thus achieve sufficient quality standards to meet consumer needs.

In order to leverage the capabilities of SMEs in generating competitive products, it is important to build an awareness of design activity as a competency. Awareness of design in SMEs needs to be sustainable, as it relates to the regeneration of human resources. This research examines the small textile industry of batik, where the design as an activity undertaken by making and designing batik patterns. It is work that is done mostly by women aged between 60 to 70 years.

Methodology

The purpose of this study was to produce a model for building a learning society in the field of design, especially for batik craftworker sector, and is expected to improve the lives of craftworkers designing batik cloth.

In order to build a model learning society in the field of design, it is important to leverage the design capabilities of the craftsmen. This can be done by studying the factors that influence people’s awareness about needing to learn in the field of design at the industry level, including the concepts underlying the emergence of community builders eager to learn, especially with regard to efforts to raise motivation to compete in the field of design.

Observing the factors affecting the establishment of a learning society became the foundation for building a model learning society in the field of design for batik craftworkers, which should raise awareness about the importance of the learning process among craftworkers, with attention to design components in order to enter era of competition, which will produce craftsmen who display competence independently in the form of a learning community design in the batik sector of an industrial environment. With regard to these objectives, it is important for structured stages of design models, research methods and procedures to be implemented, to produce a model of batik design learning for the craftworkers. The object of this research is small industries in the batik sector in Garut Regency.

This research used quantitative methods to develop a model in order to build a community eager to learn in the field of design for the craftsmen batik sector. Such a model is based on efforts to examine the relationship among the factors that affect the establishment of a public eager to learn in the field of design. Creswell (2014) states that the quantitative method is an approach to testing theory with respect to an object of observation, by assessing the relationship among the variables that influence the object of observation.

The stages of model development are as follows:
1. Determine the factors that affect the building of a learning society model in the field of design for batik craftsmen.

2. Determine the influence of factors impacting the building of a learning society in the field of design for batik craftsmen.

3. Construct a model of a learning society in the field of design for batik craftsmen.

**Conceptual Model**

This section provides an overview of the relationship between the variables, then presents an overview of the relationship between the variables before developing a conceptual model. The conceptual model is explained by considering factors that affect the effort to build a learning society in the field of design for batik craftsmen, which are characteristic of adult learning: the performance of adults in the era of competition, as well as superior design characteristics.

To create a learning society in a small industry environment, it is especially important to consider the batik learning process in terms of the competitive environment (Chappell et al., 2003; Jarvis, 2006; Tennant, 2006; Knowles et al., 2005). Characteristics of adult learning in the era of competition further characterise efforts to establish expertise or professionalism as a hallmark of excellence. It needs to be recognised that adults tend to minimise the process if structured learning, and also avoid the training (Anonuevo et al., 2001; Eikenberry, n.d.).

The performance of adults in a learning situation is very dependent on their motivation to improve their quality of life, not just increasing economic welfare, but also the presence of a recognised professional community that values integrated knowledge and skills in the form of competence (Aguiar & Ana, 2012; Creswell, 2014; Dealtry, 2009; Hefler & Jorg, 2010; Lester, 2015; Longenecker & Rob, 2013; UNESCO, 2014. This directly affects performance.

Another aspect required to build a learning society for batik craftsmen in the field of design in an era of competition is performance. According to Grow (1991), Hake (1999), Dunlap and Scott (2003), Brookfield (2013) and Dunlap (2005) the formation of a learning community is strongly influenced by recognition of the work, so it is clear that performance is at the root of any effort to obtain recognition in a society that emphasises learning aspects of expertise and professionalism on the job.

From the perspective of adults in the era of competition, a learning society in the field of design is certainly influenced by the tendency for changes to occur in the environmental needs of users of the design (Lidwell et al., 2003; Whitbread, 2002; Lauer & Stephen, 2012), because the ability to satisfy consumers is a superior characteristic of the designer (Cross, 2000; Null, 2000; Orr, 2002; Ulrich & Steven, 2012; Vink, 2005).
The design is the form that will receive recognition from the community as a demonstration of the professional work of the designer (Issaksson et al., 2015; Rubenson, 2006; World Bank, 2003). The effort to pay attention to the development needs of the community and be transformed into a design (Lidwell et al., 2003) is a form of performance (Ahlgren & Engel, 2011; Hager, 2004; Pate et al., 2000), so it is important to note the tendency of consumer demand for superior design, which directly affects the performance of the designer (Pak & McLaughlin, 2011; Vink, 2005).

In particular, Pak & McLaughlin (2011) and Vink (2005) state that the design has affected the quality of life, in which one aim is to increase a state’s knowledge (Aspin & Chapman, 2007; Barros, 2012; Matheson & Matheson, 1996; Rodgers, 2005) and skills (Ahlgren & Engel, 2011; Lorriman, 1995; Marzano et al., 2015; Sung, 2015), which can be obtained through a learning process, so it is understandable if design characteristics are directly influenced the pattern of adults carrying out the learning process in the field of design to establish superior design competence in a state (UNESCO, 2014).

To provide an overall picture of the relationship between the factors required to build a model society eager to learn in the field of design, a conceptual model is presented in Figure 1, with the variable characteristics of adult learning indicated by symbol X1, variable design characteristics by symbol X2, variable performance of adults by symbol Y and variable learning in the community design field by symbol Z.

On the basis of Figure 1, a hypothesis was formed consisting of two groups: a single variable, presented in Tables 2, 3 and 4, and the effect of variable group, presented in Tables 5 and 6.

**Figure 1: Conceptual model**
A. Single variables impact

**Table 2: The impact of adult learning characteristics**

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Hypothesis</th>
<th>Reference Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there significant contribution to the establishment of learning design fields (Z)?</td>
<td>$H_0$: The variable characteristics of adult learning (X1), does not contribute to the establishment of learning design fields (Z).</td>
<td>$H_1$: The variable characteristics of adult learning (X1), contribute to the establishment of learning design fields (Z).</td>
</tr>
<tr>
<td>$H_0$: Are there significant contribution to the community learning?</td>
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<td>$H_1$: Are there significant contribution to the community learning?</td>
</tr>
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<td>$H_1$: Are there significant contribution to the community learning?</td>
</tr>
</tbody>
</table>

Reference Theory:

- [34], [41]
- [4], [16], [69], [28], [2], [42], & [38]
Table 3: The impact of adult performance variable

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Hypothesis</th>
<th>Reference Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there significant contribution between the adult performance and establishment of learning society?</td>
<td>H₀: Adult performance variable (Y) does not contribute to significant influence. The adult performance against design (Z).</td>
<td>[26], [36]; &amp; [28]</td>
</tr>
<tr>
<td>Establishment H₁: Adult performance of learning variable (Y), contribute to significant influence, the establishment of learning society in the field of design (Z).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4: The impact of design characteristics variable

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Hypothesis</th>
<th>Reference Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there significant contribution between design characters with establishment of learning society, in the field of design?</td>
<td>H₀: Design characteristics variable (X₂), does not contribute to significant influence, the establishment of learning society in the field of design (Z).</td>
<td>[3], [21], [12], &amp; [50]</td>
</tr>
<tr>
<td>Design characteristics variable (X₂), contribute to significant influence, the establishment of learning society in the field of design (Z).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there significant contribution between design characters to performance of adults (Y).</td>
<td>H₀: Design characteristics variable (X₂), does not contribute significant effect to the effect to performance of adults (Y).</td>
<td>[73], [57], [29], &amp; [23]</td>
</tr>
</tbody>
</table>

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Table 4: The impact of design characteristics variable (continued)

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Hypothesis</th>
<th>Reference Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Design characteristics variable (X2), contribute significant influence on the performance of adults (Y).</td>
<td></td>
<td>[46], [55], [6], [56], [43], [3], [61], &amp; [45]</td>
</tr>
</tbody>
</table>

B. Group impact variables

Table 5: The Impact of adult learning characteristics and detain characteristics variables

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Hypothesis</th>
<th>Reference Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there H0: significant contribution between the characteristics of the design and characteristics of adult learning, jointly to the H1: performance of adults?</td>
<td>Characteristics of adult learning variable (X1) and character design variable (X2) do not contribute a significant influence on the performance of adults (Y).</td>
<td>The theory is formed from current research (2016)</td>
</tr>
<tr>
<td></td>
<td>Characteristics of adult learning variable (X1), and character design variable (X2) contribute a significant influence on the performance of adults (Y).</td>
<td></td>
</tr>
</tbody>
</table>
Table 6: The impact of adult learning variable, adult performance variable and design characteristics variable

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Hypothesis</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there H0: significant contribution among adult performance, adult learning characteristics, and design characteristics collectively?</td>
<td>The theory is formed from current research (2016)</td>
<td></td>
</tr>
</tbody>
</table>

Towards the establishment of H1: Learning society in the field of design?

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Hypothesis</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field of design (Z)</td>
<td>The variable characteristics of adult learning (X1), variable character of design (X2), and adult performance variables (Y) contribute significant influence to the establishment of a learning society in the field of design (Z).</td>
<td>The theory is formed from current research (2016)</td>
</tr>
</tbody>
</table>

Conclusion

The global economy has created competition for products and goods produced. Design has become a powerful tool to win this competition, so it is important for SMEs, particularly those that already have a distinctive design advantage, to progress their design capabilities in order to explore the wealth of their culture as a means to compete (Jabarullah & Hussain, 2018). In people who do not already have the skills and knowledge required to do this, it is necessary to create a learning society in the field of design in order to improve quality of life, taking into account the characteristics of learning; this is an incentive to explore the needs of consumers, combined with the local culture and the design characteristics to form a recognised standard market design, and high-quality performance in order to gain the recognition of both the producers and the market.
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