Learning Society in Design Field for Batik Craftsmen

Luthfi Nurwandi¹, Ishak Abdulhak², Endang Sumantri², Jajat S Ardiwinata².
¹Department of Industrial Engineering, University of Widyatama, Bandung, Indonesia.
²Department of Non Formal Education, University of Indonesia Education, Bandung, Indonesia.
(E-mail: luthfi.nurwandi@widyatama.ac.id)

Abstract — Design has become an important issue in the face of the era of competition, especially in Indonesia who articulated the small medium industries as one of the pillars, in order to build the national economy. Attractive conditions contained on the small and medium industries in the textile sector, sub sector of the batik, which produces excellent products batik cloths, which characterizes the culture of the nation of Indonesia, and has been recognized by UNESCO in the form of The Masterpieces of the Oral and Intangible Heritage of Humanity belongs to the nation of Indonesia. With regard to the award of UNESCO, it is important to focus at the batik craftsmen to realize that design batik, as the spearhead of the awarding of the cultural heritage of the nation of Indonesia that is recognized by the world, so it is important to increase awareness of efforts in the wake of the craftsmen, to make batik design as competency standards to compete in the global world. Pay attention to the phenomenon on batik craftsmen, then this article will be proposed a model that is leveraged batik craftsmen strive to make batik design as competency standards are competing, with attention to the four issues, namely, adult learning characteristic, adults, the performance characteristics of the design in the era of competition, as well as efforts to build a learning society.

Keywords — Learning Society, Batik Craftsmen, Adult Learning, Adult Performance, Design Characteristics.

I. INTRODUCTION

Life long education (LLE), is a forum for the community to improve the lives, as in line with [1] & [32], by changing the way of life and behavior through the process fosters learning as in [62], [60], and [22]. LLE became important grown for the community, Government, and industry to enter the era of globalization, in particular Indonesia to face the Asian Economic Community (AEC), which is the vehicle to do the competition through services as well as products on the free market. Indonesia as one of the Member countries of the Association of Southeast Asian Nation (ASEAN), by 2015 enter the global market era of so-called AEC. Indonesia will be the production of market areas and services is extensive, from the side of the area and the market because it has the largest consumer, and is expected to reach a total population of approximately 295 million or contributed, amounting to 41% of the total population of ASEAN between 2030-2035 USA in [65]. Indonesia population growth rate based on the number of the year 2010 of approximately 23 million people, has a tendency of population growth of about 1.38 per cent at 2010-2015, but the tendency to decline occurred at 2030-2035, to 0.62 percent of us in [7]. Summary of the growth of the population of Indonesia presented on Table 1

<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 free market, as Indonesia could not act to become the object of market, but should be able to produce goods and services that is ready to compete with other countries, so being able to be the host on its own country. In a free market society, government and industry are required to produce goods and services that meet production as state in [31] and in accordance with the needs of the consumer (quality) which in line with [44], [59], & [35], with suitable price strata of consumers (cost), as state in [44], [59], & [35], the fulfillment of the orders on time (delivery) which in line with [44], [59], & [35], and responsive to the changing needs of consumers, as well as changes in the business environment (service) [31]. Quality (quality), price (cost), shipping (delivery), and service (service) becomes the key to competition in the era of the MEA, so that people in
particular began to change a viewpoints and how to think from a local into the global, as well as how to behave from champions became winners and learners.

Competition on a free market, strongly influenced by the presence of human resources as state by [53] that is able to understand and operate the quality, cost, delivery and service (QCDS) consistently and continuously in order to produce goods and services. Human resources capability to meet QCDS, will determine the level of economic growth being the size of a country's competitiveness. Economic growth is influenced by the level of education and skills is owned by human resources as in [5], in which it elaborated on research skills as, which is owned by the individual's ability to perform the task quickly (delivery), accurate (Quality), and right (in accordance with the needs of the consumers, in this case meet the factors of Cost and Service), without the supervision of the intensive. While the duty on this research is described as, actions taken by workers to produce goods or services as state by [5], in accordance with the rules set by the company and the market.

With regard to mobilizing Small and Medium Enterprises (SMEs), so owning a balanced capability with great industry, there are several drawbacks to be noted with respect to the expansion of the SMEs in General at Indonesia, and as stated by [63]: (a) However, human resource (HR) low (especially formal education), including the ability to see business opportunities limited, (b) productivity is low, (c) low work ethos o discipline, (d) use of labor tends to exploitative, (e) generally use a family member as an employee who did not clear his wages, (f) value added obtained low, and it can't be measured, (g), and inadequate regulation of the ruling are not eligible. At the moment the markets not only expect products and services able to meet the needs, yet able to increase however, to enhance quality of live, as in line with [69]. However, quality become a key to win competition, as the effort to do interpretations, against the consumer culture exists in goods or services. A culture that is growing in society, which are the characteristics of pregnancy values of goods or services produced.

Value creation can not be separated from the creativity that is, interpretation of the results of thinking or imagination to create goods and services, both individually and collectively as a state in [58], United Nations and Development Programmed (UNDP), and the World Economic Forum (WEF), stating that creativity into the size advantages of a country, which measures the quality of life, this is evidenced by the emergence of countries that excel in a globally competitive, with the size of the Human Development Index (HDI), which Indonesia ranks 110 as in [65], while in the Global Competitiveness Index ranks Indonesia 34, as a state in [58].

One of the products creativity one is a design that state by [24], to describe the process or develop a plan of a product, service, or system components. Creativity is essentially an individual or group's ability to generate new forms, while efforts to generate new forms existed as a product, should pay attention to four factors, and namely design: function, material, and aesthetic values which in line with [70], so that the product is able to compete on the global market as in line with [54].

Design is one of competence as a state by [9], which should be held in order to carry out the competition as in line with [13], in the era of AEC, because the design to encourage human resource to competence, which would be characterize by a product and services as in line with [15]. Noting the maker of goods and services perpetrators were adults in the environment of SMEs, it is necessary to build awareness of the importance of design, as a competence in order to improve their quality of life as a state by [17].

Designs in this study is defined as an activity undertaken by individuals, or groups to absorb the needs of consumers, who with specialized skills combined with creativity in designing activities, as a professional skill as in line with [39] and [52]. The phenomenon of design, on competition and adults, is described as follows, that the era of globalization has spawned competition, where products and services are sold to the market must have a standard as in line with [67]. Standard products are generally referred to as quality is a culture as a state by [10], to produce a product having regard to the needs of consumers. The era of competition for adults, is a step to improve the quality of life, a way to produce competitive products and services that can be accepted by the market. In fact, the performance of adults at SMEs have not been able, to answer the challenge of the global market, which makes the product quality standards as a pillar of meeting the needs of consumers.

In order to leverage the capabilities of SMEs in generating product, it is important built an awareness of design activity as a competency. Build awareness of design in SMEs, need to be sustainable as it relates to the regeneration of human resources especially the actors. This research will take a research at Batik small industry, where the design as an activity undertaken of making batik patterns and designing batik patterns, mostly done by women or called batik aged 60 to 70 years.

II. METHODOLOGY.

The purpose of this study was to produce a model of building a learning society in the field of design, especially for batik craftsmen sector, and is expected to improve the lives of craftsmen in carrying out the activity of designing batik cloth. In order to build a model learning society in the field of design is able to leverage the capabilities of
designing for the craftsmen, an important thing to study the factors that influence the awareness of people eager to learn in the field of design at industry, particularly small and medium industries batik sector, including the concepts underlying the emergence factors of community builders eager to learn, especially with regard to efforts to raise the motivation to learn and try to compete in adults in the field of design.

The observations of the factors that affect the establishment of learning society, then became the foundation for building a model learning society in the field of design for batik craftsmen sector, which is expected to allow raising awareness on the craftsmen focus on the importance of the learning process, with attention to design components, in order to enter era of competition, which will produce craftsmen competence independently in the form of a learning community design in an industrial environment batik sector. With regard to these objectives, it is important for structured stages of design models, research methods and procedures so as to produce a model to built learning society learning at batik designs for the craftsmen, which takes the object of research in small industries batik in Garut Regency.

This research will use quantitative methods in an effort to get the model to build community eager to learn in the field of design, for the craftsmen batik sector, which is based on the efforts to examine the relationship among the factors that affect the establishment of the public eager to learn in the field of design. The cornerstone consider using quantitative methods in this study, as a state by [14], which states that the quantitative method is an approach to test the theory with respect to an object of observation, by giving out an assessment of the relationship contained in the variables that influence, the object of observation.

Generally, the stages of model development is done through the following steps:

1) Determine factors that affect the building learning society model, in the field of design for batik craftsmen.
2) Determine the influence between factors of learning society builders, in the field of design for batik craftsmen.
3) Models Construction of learning society in the field of design for batik craftsmen.

III. CONCEPTUAL MODEL.

In this section, provide an overview of the relationship between the variables, then developed a model in this section will, presented an overview of the relationship between the variables, and then developed a conceptual model. The conceptual model is explained by considering three 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 learning society, on a small industry environments especially important to consider factors batik learning process with respect to the face of the competitive environment, as state by [11], [30], [64] and [33]. Characteristics of adult learning in the era of competition, further characterize the efforts to establish the expertise or professionalism, as a hallmark of excellence, where adults do minimization of the process is structured learning, as well as avoiding the training, but it needs recognition, such phenomena as state by [4] and [20].

Characteristics of adult learning, as a state by [4], [17], [69], [28], [2], [42] and [38], directly affects the performance, that performance of the adults are very dependent on the learning characteristics of adults who are motivated to improve the quality of life, not just the side mere increase in economic welfare, as well as the presence of the recognition of a professional community with the recognition of an integrated knowledge and skills in the form of competence.

Another aspect that need to build a learning society in the field of design, for batik craftsmen in the era of competition is performance, which characterize produced a draft. According to [25], [27], [19], [8] and [18] that in forming a community is strongly influenced by the recognition of the work, so it is clear that the performance is the root of an effort to get an award on a community society that emphasizes aspects of expertise and professionalism on the job.

A learning society in the field of design from the perspective of adults in the era of competition, certainly influenced by the tendency of changes in the environmental needs of users of the design, because the ability of the design to satisfy consumers as in line with [72], [40] and [37], is a superior characteristic of the designer, this is in line with research conducted by [15], [48], [71], [68] and [47]. The design is a form that will receive the award from the community, as a demonstration of professional work of the designer, as in line with [73], [57] and [29], the effort to pay attention to the development needs of the community, and be transformed into a design as in line with [40] is a form of performance such as state by [51], [26], and [3], so it is important to note the tendency of consumer demand, as the characteristic superior design, which directly affects the performance of the designer, as a state by [23] and [71].

In particular [23], [71] and [49], states that the design has affected the quality of life, in which one of the efforts to improve the quality of life of which is to increase knowledge as a state by [46], [55], [6], and [56] and skills [43], [3], [61] and [45], which can be obtained through a learning process, so it's understandable if design
characteristics directly influenced the pattern of adults carry out the learning process in the field of design, in order to establish competence as a state by [69] which is capable of producing superior design.

In order to provide an overall picture of the relationship between the factors, which are required to build a model society eager to learn in the field of design, the batik craftsmen then presented in the form of conceptual model, as presented in Fig 1, where the variable characteristics of adult learning by symbol X1, variable design characteristics given the symbol X2, variable performance of adults given the symbol Y, and variable learning community design field given the symbol Z.

Furthermore, based on Figure 1, formed the hypothesis that consists of two groups: a single variable, as presented in Table 2, Table 3 and Table 4, as well as the effect of variable group, as presented in Table 5 and Table 6.

![Fig 1. Conceptual Model](image)

### A. Single Variables Impact.

#### Table 2.

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Hypothesis</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there significant contribution between the characteristics of adult learning to the establishment of learning Society in the field of design?</td>
<td>H₀: The variable characteristics of adult learning (X1), does not contribute to significant influence, the establishment of community learning design fields (Z).</td>
<td>[54] &amp; [41]</td>
</tr>
<tr>
<td></td>
<td>H₁: The variable characteristics of adult learning (X1), contribute to significant influence, the establishment of community teaching design fields (Z).</td>
<td></td>
</tr>
</tbody>
</table>

#### Table 2. (Continued)

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Hypothesis</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there significant</td>
<td>H₀: The variable characteristics of adult learning (X1), does not contribute to significant influence, the establishment of community teaching design fields (Z).</td>
<td>[4], [16], [69], [28].</td>
</tr>
<tr>
<td></td>
<td>H₁: The variable characteristics of adult learning (X1), contribute to significant influence, the establishment of community teaching design fields (Z).</td>
<td></td>
</tr>
</tbody>
</table>
The Impact of Adult Learning Characteristics (Continued).

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Hypothesis</th>
<th>Reference</th>
<th>Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between the...</td>
<td>The variable characteristics of adult learning (X1), does not contribute to the effect, which is significant to the performance of adults (Y).</td>
<td>[38]</td>
<td></td>
</tr>
</tbody>
</table>

**Hypothesis:**

$H_0$: The variable characteristics of adult learning (X1), does not contribute to the effect, which is significant to the performance of adults (Y).

$H_1$: The variable characteristics of adult learning (X1), contribute to the effect, which is significant to the performance of adults (Y).

The Impact of Adult Performance Variable

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

**Hypothesis:**

$H_0$: Adult performance variable (Y), does not contribute to significant influence, the establishment of learning society in the field of design (Z).

$H_1$: Adult performance variable (Y), contribute to significant influence, the establishment of learning society in the field of design (Z).

The Impact of Design Characteristics Variable

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Hypothesis</th>
<th>Reference</th>
<th>Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there...</td>
<td>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>
<td></td>
</tr>
</tbody>
</table>

**Hypothesis:**

$H_0$: Design characteristics variable (X2), does not contribute to significant influence, the establishment of learning society in the field of design (Z).

$H_1$: Design characteristics variable (X2), contribute to significant influence, the establishment of learning society in the field of design (Z).

B. Group Impact Variables.

The Impact of Adult Learning Characteristics and Design Characteristics Variables

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Hypothesis</th>
<th>Reference</th>
<th>Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there...</td>
<td>Characteristics of adult learning variable (X1), and character designs variable (X2) do not...</td>
<td>[56], [55], [6], [56], [43], [3], [61], &amp; [43]</td>
<td></td>
</tr>
</tbody>
</table>

**Hypothesis:**

$H_0$: Characteristics of adult learning variable (X1), and character designs variable (X2) do not contribute a significant influence on the performance of adults (Y).

$H_1$: Characteristics of adult learning variable (X1), and character designs variable (X2) contribute a significant influence on the performance of adults (Y).

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>
<th>Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there...</td>
<td>The theory is formed from current research (2016).</td>
<td>The theory is formed from current research (2016).</td>
<td></td>
</tr>
</tbody>
</table>

**Hypothesis:**

$H_0$: Characteristics of adult learning variable (X1), among adult performance, adult learning characteristics, and design characteristics, does not contribute a significant effect to the effect, to adults performance (Y).

$H_1$: Characteristics of adult learning variable (X1), and design characteristics, do not contribute a significant effect to the effect, to adults performance (Y).
collectively

Table 6
The Impact of Adult Learning Variable, Adult Performance Variable, and Design Characteristics Variable (Continued)

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

IV. CONCLUSION.

Global competition, has created a competition on products and goods produced. Design has become a powerful tool of war to win the competition, so it is important for small and medium industry, which already has a distinctive design, in order to forward the design to explore the wealth of culture, a means to compete. In people who do not already have the skills and knowledge essential resurrected, competitive spirit through the process of forming learning society in the field of design, in order to improve the quality of life, taking into account the characteristics of learning, which is a spur to explore the needs of consumers, combined with the local culture, the design characteristics to form recognized standard market design, and performance in order to gain recognition of the producers and the market.

REFERENCES


