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Research paper



Building Batik Craftsmen Learning Society (Design Case)

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Abstract

This research was based on construction of the learning society in the face of global competition for batik craftsmen in small and medium enterprises (SME's) industrial sector of batik in Indonesia. Formation of the learning society was important to do, so that the important work of batik design experienced no piracy and extinct both from the design side as well as craftsmen. With regard to the phenomenon the purpose of the research is finding important the determinant factors in order to shaping the learning society, which becomes the container for batik craftsmen to get recognition of batik designs, as well as the competence of the profession. There were three factors that affect the formation of the learning society for batik craftsmen namely adult learning in an era of competition, the adult's performance in the era of competition and universal design. In this study, the influence of these three factors that affect the learning society would be observed. The results of this research show that batik craftsmen build their knowledge and skill to form their performance before, construct learning society, while another batik craftsmen used their expertise to form their performance before construct learning society.

Keywords: *Learning Society; Adults Learning Character; Universal Design Character; Adults Performance.*

1. Introduction

Learning society in global competition era has become a form which expected to have the ability to cope with the rapid changes in the environment [2-3, 16] caused by international trade, widespread utilization of technology and information generates that is increasingly accessible [3]. The phenomena of environmental change will encourage the formation of learning society, so leveraged to economic growth of a country which characterized by global competition to reach the market through the performance of a unique competence that owned by individuals and organizations [27-28]. According to [53], learning society is a device that utilized to anticipate society's developmental needs in the face of environmental changes [13, 21], marked by the emergence of freedom of society to cultivate knowledge freely through a form of education that does not refer to or administered by an institution [22, 48].

The framework of the learning society in an environment that changes quickly has declared by [12, 47], which states that the learning society is directed towards the vehicle in order to increase economic growth (growth), creating competitiveness (competitiveness), as well as expanding employment (employment). Based on the framework of learning society developed by [12, 47], then the learning society to be a vehicle, to develop a learning community as a structured and continuous lifelong education called [3, 27] which characterized by each individual should continue to implement the learning process freely without restrictions in order to face the challenges of competition, as well as the entire party and groups in society is becoming of offender education whether in individual or group work [27, 29, 42].

The main obstacle in constructing the learning society, primarily in the developing country is an effort to set the qualifying results of the learning process [45, 54] because for this community was fond of learning is a form of lifelong learning development is universally [16, 53]. The phenomenon of applying the results of the study became a recognized form, looks on as a group called batik craftsmen. The batik craftsmen are the individual who undertakes the design activities started from making of the pattern to the batik cloth that are ready to be utilized. Batik craftsmen is essentially already having the ability to carry out the activity of design, but do not yet have the recognition as the profession of making batik.

Batik craftsmen generally carry out activities in batik to meet the necessities of life, so this factor becomes the starting point of the occurrence of the hijacking and the acquisition of good design as well as batik resource, so that in the future the batik craftsmen became extinct. This phenomenon should get the attention of the principals in the batik industry, especially the Government and owners of small and medium enterprises (SME's) sector of batik. Profile of batik SME's in Indonesia currently has 50,000 units spread across Indonesia, which is able to absorb the workforce as much as 199,444 people in batik, but only about 72 business units who have had patent batik design or Batik MARK of about 6000 entrepreneurs spread across Java and Madura [41, 57]. Batik Mark is certificate that indicating identity of Indonesia-made batik [41], while batik craftsmen who have certificates of the profession as a batik craftsmen aggregating 1.906 people or just 0.95%. The age of batik craftsmen is relatively entering the twilight range between 50 to 70 years by as much as 35% or including twilight age (late maturity) with 40% primary school education background [57].

The low number of batik artisans who certified, with regard to the characteristics of the activity of making batik should recognize the cultural character of the first [57], a technology that is simple, so time to make batik is especially long, as well as the existence of a presumption that the work is not the only profession batik business side [41]. The other barriers that inhibit batik to get certification is the cost, time, policies as well as the nature of certification because the granting of certification just touch to the standard

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operation procedure of batik activities, has stressed to the characteristics and ways to generate a particular motif of batik.

Pay attention to a number of obstacles faced by batik craftsmen to empower batik job to be a profession, where the largest number of batik craftsmen is in their late maturity, hence the need to leverage of awareness of batik craftsmen to build a learning society that has characteristics are able to establish co-operation between educational institutions, government and non-governmental organizations in order to open up employment, improve competitiveness and provide social equality to the perpetrators in the batik industry sector [16, 53]. An important pillar of the note is the performance of the profession building [6, 28] through the process of lifelong learning [3], which influenced by the characteristics of the design [19] batik on based local wisdom in order to face global competition.

Evocative attempt to build the learning society for batik craftesmen, then on this research is directed to review the factors to build the learning society on the design of batik which is influenced by three factors namely forming a batik-performance design activity execute helpless competitiveness [5, 8], the adult learning process in the era of competing [25] as well as the learning object be characterizing the design in an era of competing [10, 18, 37]. Based on the statement the focus of this study observed relationship of influential factors for constructing the learning society in the field of design for batik craftsmen, which influenced by the performance characteristics of lifelong learning, and the characteristics of the design.

The end result of this research are analysis and synthesis of the influence of factors, that a used to build the learning society in the field of design for batik craftsmen. This study observed a relationship between design behavior of batik craftsmen, batik craftsmen learning behavior and performance of batik craftsmen to build the learning society in the field of design for batik, which spelled out as follows:

a. analyse the influence behaviours design characteristic of batik craftsmen, against the formation of the learning society.
b. analyse the influence behaviours design characteristic designs of batik craftsmen, against learning characteristics of batik craftsment.
c. analyse the influence behaviours design characteristic designs of batik craftsmen, against batik craftsmen performance.
d. analyse the influence batik craftsmen learning characteristics batik, towards the learning society.
e. analyse the influence batik craftsmen learning characteristic, towards batik craftsmen performance.
f. analyse the influence of batik craftsmen performance, against the learning society in the field of design.

2. Literature Review

2.1. The Learning Society

On this research, learning society described as groups of people who seek to exploit culture as knowledge in order to face the competition with the aim of improving the competence (competence in the field of design for batik craftsmen). This definition is in line with that expressed by [12, 16, 28, 35, 48] where culture is used as a structure, approaches and technologies in order to create a unique knowledge which was recognized as a profession or expertise by an agency, so it shows a typical competitiveness of a society as well as the society expected, able to manage a growing knowledge on an ongoing basis to improve the extent of their lives. On the study, ignorance and poverty did not become a major discussion as put forth by [22] because is worthy in order to build motivation in an era of competing, so that society changed from behaving learning to know and learning to be, shifted to be live together and learning how to learn as expressed by UNESCO in [12] as a principle of human learning Excel in 21st century from the perspective of an adult.

2.2. Lifelong Learning

Lifelong learning has become the heart of the formation of the learning society, so in [12] developed stated that the learning is the development of lifelong learning, which are developed according to the needs of individuals as well as to groups he changes the environment through a comprehensive and holistic learning. The definition of lifelong learning along with the development of the learning society, in its development led to the mastery of the knowledge to establish professionalism, in order to face the changes of the social environment and economics [2, 35-36, 51]. Experts in the field of lifelong learning, by this time divided into two major groups namely (a) The expert on lifelong learning, which supports that lifelong learning is an attempt to master a certain competence on environmental change, as well as learning to live independently with a smart way including [26, 44] and (b) the expert field of lifelong learning that is structured in an attempt to form a human being becomes a valuable investment, in the form of creations that are flexible and capable of being accepted in different environmental conditions of work including [2, 23, 40].

2.3. Adults Learning

Regard with lifelong learning, in [55] suggests the results of learning in the 21st century that characterized by increased capacity independently and continuously in order to complement the pillars of education as well as on the development of community living patterns changing into a competition [20], in order to generate a unique value works [4] by the way, apply and enhance knowledge and skills, both utilizing the wisdom of local, national, and international. This thinking changes the structure of public education, according to the lifelong education of (1946-1970), to lifelong learning (1971-2000), global and learning society (2001-2030) which was conceived by [11]. Looking at the importance of continuous learning in the community in order to build the learning society, then worthy of note as the cutting edge design to produce excellence, especially in the batik industry that batik craftsmen generally is adults who already have a responsibility in doing the design so that characterize the identity of a nation [27, 52] as well as sociological where batik craftsmen into the backbone [55] in order to uplift the dignity and the degree of a society in the form of batik designs carry out, so that it becomes a product superior to the then noteworthy characteristics of adult learning in the era of competition namely explorer, reflexive, self-actualizing agent, and integrators such as expressed by [38].

2.4. Adults Performance

Notice that the keyword on the performance, demonstrated by the ability of the work then in adults working ability demonstrated by efforts to address the risk of appearing on the environment and the good life on the present, nor things to come, in the form of competitive environment, it is in line with the thinking of [4, 15], while building a toughness through the independence to work by way of harnessing the potential of knowledge and skills that are in line with research owned [14] as well as having the vision that learning as an ongoing process, in an effort to cope with the changes in the social and economic environment, it is in line with the thinking and research to [15]. Pay attention to the meaning of performance, on the research performance of the adult is defined as the effort faced an environment of competition by way of digging the potential knowledge, and skills through learning on an ongoing basis, in order to develop the independence, either an individual or a group.

2.5. Design Concept

The design principle is the activities related to the planning of a design, in which the results will be tangible image, next image is relied upon to form the actual form. With regard to planning activities according to [33], important to note the elements of the design are as follows: (a) balance that design elements that set up

every part of the image or the product, so that its parts seem balanced, (b) unity/harmony, design elements that indicate that the whole picture is a unity, as well as meaningful, (c) hierarchy design element capable of carrying observers enjoy the entire form and imagine a colors of the smallest thing to the most important (d) scale/proportion design element shows a comparison of the shape or color of a proportionate, (e) dominance design elements of the show, the designer, who represented interests against the expression of shapes and colors shown, (f) Designer elements Contrast shows the difference in shapes and colors. Design principles expressed by [33], focus more on design as mere products, while it is important to note that the design of the need to look at the needs of the consumer, if the end product want to compete on the market. With regard to the phenomenon of research, in line with that expressed by [37, 56], where there are four design characteristics, which affect the design, based on the needs of the average user is an adult, that the design must accommodate the elements supportive, adaptable, accessible, and safe.

3. Methodology

This research utilizes a quantitative method which consists of six steps, as expressed by [9] namely makes the design research, determine the respondent, determines the number of samples, making the research instrument, making hypotheses, and perform testing data. Numerical calculation to test the relationship between the design of the behavior learning of batik craftsmen and performance of people fond of study, utilized SMART PLS version 3.0 software.

3.1. Research Design

Relationship between batik craftsmen design (X2) as design characteristics, batik craftsmen learning (X1) as adult learning, batik craftsmen performance (Y) as adult performance, and learning society (Z), is modeled described as follows:

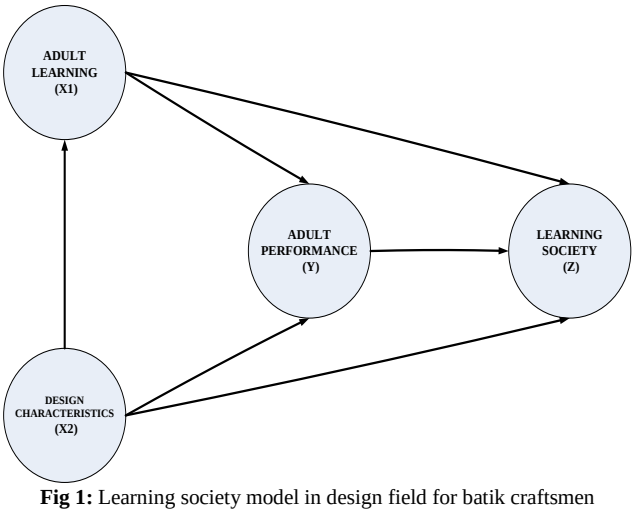

Fig 1: Learning society model in design field for batik craftsmen

3.2. Respondent

The respondent was batik craftsmen in batik Garut town of SME's in West Java Indonesia. Batik craftsmen has been approached in the age of late maturity, as well as typical products batik is made in the town of Garut, made by batik craftsmen live in Garut, a company based in the city of Garut, as well as the design of the batik originated from the city of Garut which totaled 34 batik design.

3.3. Sample

The number of samples of SME's be observation was of a population by as much as 8 contained in the city of Garut, while the number of batik craftsmen that became respondents is as many as 30 people. Determination of the total sample of respondents and SME's batik and amount of batik craftsmen, done using the formula on [46] with an estimated error rate of 5%.

3.4. Hypothesis

Based on the framework of the model presented in Figure 1, then the next step it can formulate the hypothesis, which outlines its efforts to answer the questions of research, with attention to the relationships between the factors of learning, community building, which is outlined as follows:

3.4.1. Batik Craftsmen Design Characteristics (X2)

a. The influence of batik craftsmen design (X2) to learning society (Z).

H_o: Batik craftsmen design characteristics (X2), does not contribute significant influence to learning society in design field for batik craftsmen (Z).

H_1: Batik craftsmen design characteristics (X2), contribute significant influence to learning society in design field for batik craftsmen (Z).

b. The influence of batik craftsmen design (X2) to batik craftsmen performance (Y).

H_o: Batik craftsmen design characteristics (X2), does not contribute significant influence to batik craftsmen performance (Y).

H_1: Batik craftsmen design characteristics (X2), contribute significant influence to batik craftsmen performance (Y).

c. The influence of batik craftsmen design (X2) to batik craftsmen learning (X1).

H_o: Batik craftsmen design characteristics (X2), does not contribute significant influence to batik craftsmen learning (X1).

H_1: Batik craftsmen design characteristics (X2), contribute significant influence to batik craftsmen performance (X1).

3.4.2. The Influence of Batik Craftsmen Learning (X1)

a. The influence of batik craftsmen learning (X1) to learning society (Z).

H_o: Batik craftsmen learning (X1), does not contribute significant influence to learning society in the field of design for batik craftsmen (Z).

H_1: Batik craftsmen learning (X1), contribute to learning society in the field of design for batik craftsmen (Z).

b. The influence of batik craftsmen learning (X1) to batik craftsmen performance (Y).

H_o: Batik craftsmen learning (X1), does not contribute significant influence to batik craftsmen performance (Y).

H_1: Batik craftsmen learning (X2), contribute significant influence to batik craftsmen performance (Y).

3.4.3. The influence of batik craftsmen performance (Y) to learning society (Z)

H_o: Batik craftsmen performance (Y), does not contribute significant influence to learning society in the field of design for batik craftsmen (Z).

H_1: Batik craftsmen design characteristics (X2), contribute to learning society in the field of design for batik craftsmen (Z).

3.4.4. Testing

Testing is done using SMART PLS Version 3, through the stages of testing validity and reliability, as well as estimation of the T test [24], who then conducted the discussion.

4. Results and Analysis

Testing conducted into three stages, starting with model describe the relationships between factors, learning society in fields like batik design. Both stages are done testing the validity and reliability, as well as ending with the determination of the influence between factors with T test.

4.1. Diagram Model

First step before data execute by SMART PLS version 3.0 software was transformed model of construction learning society in design field for batik craftsmen as described in Fig. 1, to be a diagram model which suitable with the software, as described in Fig. 2.

4.2. Validity and Reliability Testing

Based on average variance extracted (AVE) test results obtained from the SMART PLS version 3.0, obtained information that invalid constructs from models each have an AVE score exceeding 0.5 [7, 24], the condition explained that the relationships invalid constructs, have a high correlation, deserves to be used as a model in research. The results are presented in Table 1.

Table 1: Validity score result

Construct	Average Variance Extracted (AVE)
X1	0,548
X2	0,585
Y	0,627
Z	0,627

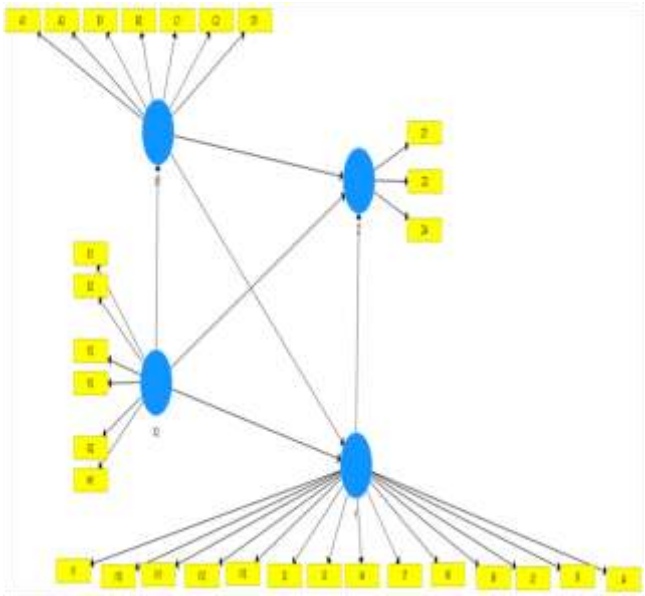

Fig. 2: Model Diagram for SMART PLS Version 3.0

In this study, the indicators used for measure, a statement of the twenty-five respondents. In order to obtain the reliability of any invalid constructs, using the parameters Cronbach's and alpha compositing reliability. According to [7, 24], an invalid constructs have the component indicators with high consistency, if has the value score Cronbach's alpha is greater than 0.6 and composite reliability greater than 0.7. The test results are invalid constructs a model on this research are presented in Table 2.

Table 2: Reliability score result

Construct	Cronbach's Alpha	Composite Reliability
X1	0,874	0,909
X2	0,837	0,881
Y	0,902	0,916
Z	0,699	0,828

4.3. T Statistic

Structural model testing in this research aimed to influence interbank invalid constructs found in research. Influence of testing obtained from the SMART PLS version 3.0 with the parameters presented in Table 3.

Table 3: T Statistics result

Path	T Statistics
X1 → Y	2,726
X1 → Z	0,502
X2 → X1	22,755
X2 → Y	2,173
X2 → Z	1,266
Y → Z	1,818

On Table 3 presented information regarding test results of T statistics, showing the influence between invalid constructs in the model of learning society in the field of design for batik craftsmen. The results of subsequent statistical T confirmed to hypothesis, which numbered as many as six hypotheses, in order to determine the influence between invalid constructs that became the characteristics of learning batik observations (X 1), batik design characteristics (X 2), performance of batik (Y), as well as the public fond of learning design field (Z), as presented in Table 4.

Table 4: Statistic T and hypothesis

Hypothesis	T_{com}	T_{ref}	Decision	Conclusion
X2 → Z	1,266	1,960	H_0 accepted	Unsupported
X2 → X1	22,76	1,960	H_0 rejected	Supported
X2 → Y	2,173	1,960	H_0 rejected	Supported
X1 → Z	0,502	1,960	H_0 accepted	Unsupported
X1 → Y	2,726	1,960	H_0 rejected	Supported
Y → Z	1,818	1,960	H_0 accepted	Unsupported

5. Discussion

The discussion is carried out through three divisions namely the influence of the batik craftsmen design characteristics (X2), influence the batik craftsmen learning (X1), and the influence of batik craftsmen performance to the formation of the learning society in the field of batik design, with attention to the results of the test T statistics results presented on Table 4.

5.1. The Effect of Batik Craftsmen Design Characteristics (X2)

The T test statistic presented in Table 4, showing that in this study the batik craftsmen design characteristics is the key to building the public fond of learning expressed by [2, 35] does not give a huge effect demonstrated by $T_{com} < T_{ref}$ (1.266 < 1.960), generally for batik craftsmen. Batik artisans on this research, not to pay attention to aspects of design characteristics, in order to form the learning society, as a tool used to compete in the global market, the evidenced by the magnitude of the composition of the motivation of batik, obtained from observations in field more to preserve the culture of batik value 48%, while the requirement that the design became a profession only value 24%. Another aspect character design factors not affect, against the formation of the learning society in the field of design, for batik craftsmen is a problem faced by SME's, dominated by the scarcity of human resources of batik craftsmen according to field observation data as much as 31%. This condition is inverted with [17, 51] which states that human resource is a dominant factor in building the learning society than marketing, place and capital.

The results of the T test statistic in Table 4, signed that the conditions invalid batik craftsmen design characteristics (X2) against batik craftsmen performance (Y), showed Tcom < Tref (22,76 > 1,960), confirmed that the behavior of batik craftsmen utilizing design, gives influence to the formation batik craftsmen performance in the face of the competition era that in line with the research conducted by [26, 56], in which the character designs in

batik after have tended to show the results of batik as a work, deserving of appreciation from the other party. These conditions show that batik craftsmen has had motivation to make batik design as a profession, where the motivation to make batik design activities as a profession, according to data from observation field is 24%, and the need for the recognition of batik as a profession, based on the observations in field was 80%, so batik has actually had the awareness to make the character designs that have been owned to get recognition from the community of batik, consumers and governments , in order to face global competition.

On the study of knowledge and skills in an effort to focus on implementing the design into character behavior in batik designing for batik [42], to raise the motivation of getting recognition of batik as a profession in the face of the competition era, so important for batik craftsmen to adopt adult learning character to face the era of competing [2, 36, 43, 51]. Hypothesis testing using T statistics presented in Table 4, showing that the influence of the batik craftsmen design characteristics statistic against the batik craftsmen learning have a value Thit > Tref (22.76 > 1.960), giving the sense that batik craftsmen has had the awareness to unearth the knowledge and skills of batik design activities, through the process of learning in the working place to get unique batik design character, in accordance with the statement of [2, 36, 51], which suggests that the character designs in adults should be a reference to form the learning process in carrying out the activity of design.

5.2. The Effect of Batik Craftsmen Learning (X1)

In order to see the effects of batik craftsmen learning to learning society in design field for batik craftsmen, T statistics evaluated (Table 4) against model had been built. The test results showed that the batik craftsmen learning do not affect significantly to the learning society in design field for batik craftsmen, from Table 4 was show that the T statistic T_{com} under of T_{ref} (1.96 < 0.502). This value indicates that the learning outcomes of adults in competition era do not give significant impact, against the efforts of the formation of the learning society [49-50].

The influence of batik craftsmen learning to batik craftsmen performance in Table 4 shows that the value of Tcom = 2.726 is greater than the value of Tref = 1.96. The results show that batik craftsmen use of batik learning as a vehicle to establish the motivation of overachievers to get recognition as a profession, batik work, this is in line with the opinion of the [1, 32, 34], which stated that the orientation of adult learning intended to get a certain party of accomplishment. After getting a profession, then the next profession was used as a device to form a learning community, as well as a reference that gives confidence and getting recognition from society, that Batik is a work that gave the assurance in the era of globalization.

5.3. The Effect of Batik Craftsmen Performance (Y)

The results of the test statistic T structure analysis on model, are presented in Table 4 show that batik craftsmen performance no significant effect against the Z learning society in design field for batik craftsmen value of Tcom smaller than the Tref (1.818 < 1.960). These conditions show that batik craftsmen is not showed unequivocally, a good motivations and the recognition of the profession, there is a measure that can be used to form a learning society, because on learning society batik craftsmen must continuously develop awareness study [2, 30], as well as raising the standard of design activities [39, 50], this condition is clearly visible from the observations in field, that batik craftsmen in batik who has experience of more than 33 years of as much as 20%, which has an average elementary school education as much as 47.5%, and has had the ability to do a batik designer independently and ask for Batik young novice or experiences. This phenomenon is consistent with research conducted by [23, 25, 31], which States that the performance of adults are not the only variables that are able to be the device to form a learning community, however they looked at, that the profession is a device that is capable of tilting them globally to compete independently.

6. Conclusion

This research has found that both factors in batik craftsmen design characteristics, batik draftsmen learning, and batik craftsmen performance do not affect directly against the formation of a learning society. Batik craftsmen who already have expertise, in the knowledge and skills regarding unique design of batik Garut, tend to get recognition in the form of the profession to make batik from the global environment, and yet have the awareness to transfer knowledge and skills through a container that is referred to as learning society. Batik beginners tend to dig into the knowledge and skills of batik design pattern, first motivate to get professional recognition to make batik. Batik craftsmen who have expertise and novice, don't have the awareness to change batik profession to meet the necessities of life, become a profession which is used as a means to compete in the era of global change, including the activity of making batik from fulfilling the needs of life, become a professional instructor special characteristic batik design, capable of providing certainty in individuals, or groups to have a knowledge and skill to make unique batik character.

References

[1] Aguiar, M., & Ana, M.S. (2012). New Skill in Adult Education and Training: The Field of Mediation in Portugal and France. Procedia Social and Behavioral Sciences. (69), 890-898.

[2] Ahlgren, L., & Laura, C.E. (2011). Lifelong Learning through SMEs: Exploring Workplace Learning in the UK. Journal of Workplace Learning. 23(5), 331-348.

[3] Anonuevo, C.M., Toshio, O., & Werner, M. (2001). Revisiting Lifelong Learning for 21th Century. UNESCO Institute for Education.

[4] Brookfield, S.D. (2005). The Power of Critical Theory for Adult Learn and Teaching. Open University Press.

[5] Burns, K. (2009). Exploring Design Capability in Terms of Absorptive Capacity and Tipping Points. Proceedings of the 8th European Academy of Design Conference.

[6] Camuffo, A., Fabrizio, G., & Paolo, G. (2012). Competencies Matter: Modeling Effective Entrepreneurship in Northeast of Italy Small Firms. Cross Cultural Management. 19(1), 48-66.

[7] Chin, W.W., Gopal, A., & Salisbury, W.D. (1997). Advancing the theory of Adaptive Structuration: The Development of a Scale to Measure Faithfulness of Appropriation. Information Systems Research. 8(4), 342-367.

[8] Crawford, M., & Anthony, D. (2008). New Product Management. McGraw-Hill.

[9] Creswell, J.W. (2014). Research Design: Qualitative, Quantitative, and Mixed Method Approach. Sage Publications.

[10] Cross, N. (2000). Engineering Design Methods: Strategies for Products Design. John Wiley and Sons.

[11] De Goni, J.I.M.D.M. (2006). What is Adult Education? UNESCO.

[12] Delors, J., In'am, M., Isao, A., Roberto, C., Fay, C., Bronislaw, G., William, G., Aleksandra, K., Michael, M., Marisela, P.Q., Marie, A.S., Karan, S., Rodolfo, S., Myong, W.S., & Zhou, N. (1996). Learning: The Treasure Within. UNESCO.

[13] Dijkema, G.P.J., P. Ferrao., P.M. Herder., & M. Heitor. (2006). Trends and Opportunities Framing Innovation for Sustainability in The Learning Society. Technological Forecasting and Social Change. 73, 215-227.

[14] Dunlap, J.C., & Scott, G. (2003). Preparing Students for Lifelong Learning: A Review of Instructional Features and Teaching Methodologies. Performance Improvement Quarterly. 16(2), 6-25.

[15] Dunlap, J.C. (2005). Changes in Students' Use of Lifelong Learning Skills during a Problem-Based Learning Project. Performance Improvement Quarterly. 18(1), 5-33.

[16] European Commission. (1995). White Paper on Education and Training Teaching and Learning: Towards the Learning Society. http://europa.eu/document/comm/white_papers/.

[17] El-Kafafi, S. (2012). Assessment: The Road to Quality Learning. World Journal of Science, Technology, and Sustainable Development. 9(2), 99-107.

[18] Fargnoli, M., Edoardo, R., & Riccardo Troisi. (2006). The Morphological Matrix: Tool for the Development of Innovative Design Solutions. Proceedings of the International Conference of Axiomatic Design. pp. 1-7.
[19] Florida, R., & Irene, T. (2004). Europe in the Creative Age. Demos.
[20] Foley, G. (2004). Dimensions of Adult Learning: Adult Education and Training in a Global Era. Open University Press.
[21] Gorard, S., & Emma, S. (2006). Beyond The Learning Society: What Have We Learnt from Widening Participation Research? International Journal of Lifelong Education. 25(6), 575-594.
[22] Gorard, S., & Gareth, R. (2002). Creating Learning Society? Learning Career and Policies for Lifelong Learning. Policy Press.
[23] Hager, P. (2004). Lifelong Learning in the Workplace? Challenges and Issues. Journal of Workplace Learning. 16(1/2), 22-32.
[24] Hair, JR, J. F. G. Tomas, M. H, Christian, M. R, & Marko, S. (2014). A Primer on Partial Least Squares Structural Equation Modeling (PLS- SEM). Sage Publications.
[25] Hefler, G., & Jorg, M. (2010). Formal adult Learning and Workingin Europe: A New Typology of Participation Patterns. Journal of Workplace Learning. 22(1/2), 79-93.
[26] Issaksson, R., Rickard, G., Mikael, J., Christer, K., & Jorg, P. (2015). Sustaining Sweden's Competitive Position: Lean Lifelong Learning. Measuring Business Excellence. 19(1), 92-102.
[27] Jarvis, P. (2006). Beyond The Learning Society: Globalisation and Moral Imperative for Reflective Social Change. International Journal of Lifelong Education. 25(3), 201-211.
[28] Jensen, K., Leif Chr, L., & Monika, N. (2012). Professional Learning in the Knowledge Society. Sense Publishers.
[29] Knowles, M.S., Elwood, F.H III., & Richard, A.S. (2005). The Adult Learner. Elsevier.
[30] Kommers, P. (2003). Technology for Continuous Learning towards the Knowledge Society. International Journal Continuing Engineering Education and Lifelong Learning, 13(5/6), 578-596.
[31] Lantz, A. (2007). Job design for learning in Work Groups. Journal of Workplace Learning, 19(5), 269-285.
[32] Lester, S. (2014). A Vocational Qualifications System Fit for Adults? Revisiting Some Ideas from the University for Industry. Higher Education, Skills, and Work-Based Learning. 5(2), 102-116.
[33] Lidwell, W., Kristina, H., & Jill, B. (2003). Universal Principle of Design: 125 Ways to Enhance Usability, Influence Perception Increase Appeal, Make Better design decisions and Teach Through Design. Rockport Publishers.
[34] Longenecker, C., & Rob, A. (2013). The Eight Imperatives of Effective Adult Learning: designing, Implementing, and Assessing Experiences in The Modern WorkPlace. Human Resource Management International Digest. 21(7), 30-33.
[35] Manzoor, A. (2014). Life Learning in a Learning Society: Are Community Learning Centres the Vehicle. International Development Policy: The Graduate Institute, Geneva. 5(1), 1-18.
[36] Marzano, G., Velta, L., & Svetana, U. (2015). Involving Adult Educators in Quality Assessment Process. (2015). Procedia-Social and Behavioral Sciences. 197, 2174-2181.
[37] Null, R. (2014). Universal Design: Principles and Models. CRC Press.
[38] Nurwandi, L., Ishak, A., Endang, S., & Jajat, S.A. (2016). A Model to Build Performance for Batik Craftsmen in Competition Era. Advances in Social Science, Education, and Humanities Research. 88, 131-136.
[39] Palvalin, M., Maiju, V., Aki, J., Harri, L., & Antti, L. (2015). Smart-WoW- Constructing a Tool for Knowledge Work Performance Analysis. International Journal of Productivity and Performance Management. 64(4), 479-498.
[40] Pate, J., Graeme, M., Phil, B., & Jim, M. (2000). Company-based lifelong learning: What's the Pay-off for Employers? Journal of European Industrial Training. 3(4), 149-157.
[41] Primartantyo, U. (2013). Tak Ada Regenerasi, Batik Sukapura Terancam Punah. Tempo. http://www.tempo.co/topik/masalah/2055/batik.
[42] Rodgers, A. (2005). Non-Formal Education: Flexible Schooling or Parcipatory Education? Kluwer Academic Publisher.
[43] Rosanna, B. (2012). From Lifelong Learning. Discussion of Some effects of Today's Neoliberal Policies. European Journal for Research on the Education and Learning of Adults. 3(2), 119-134.
[44] Rubenson, K. (2006). The Nordic Model of Lifelong Learning. Compare. 36(3), 327-341.
[45] Schuetze, H.G., & Catherine, C. (2006). Introduction Models and Meanings of Lifelong Learning: Progress and Barriers on the Road to a Learning Society. Compare. 36(3), 327-287.
[46] Siregar, S. (2013). Metode Penelitian Kuantitatif: Dilengkapi dengan Perbandingan Perhitungan Manual dan SPSS. Kencana Prenada Media Group.
[47] Smith, J.G. (2006). The Delors White Paper On Unemployment. International Review of Applied Economics. 8(3), 341-347.
[48] Stiglitz, J.E., & Bruce, C.G. (2014). Creating a Learning Society. Columbia University Press.
[49] Su, Y. (2010). The Non-Instrumental Vision of the Learning Society. International Review of Education. 56, 517-530.
[50] Sun, Q., & Haijun, K. (2015). Infusing Work-Based Learning with Confucian Principles: A Comparative Perspective. Higher Education, Skills, and Work Based Learning. 5(4), 323-338.
[51] Sung, M. (2015). A Study of Adults' Perception and Needs for Smart Learning. Procedia-Social and Behavioral Sciences. 191, 115-120.
[52] Tennant, M., (2006). Psychology and Adult Learning. Routledge.
[53] Tien, P.D.N. (2013). Characteristics of Learning Societies and Learning Citizens: A Literature Review. National Workshop on Building a Learning Society in Vietnam: From Vision to Action. UNESCO.
[54] Turturean, M. (2015). Rethinking the Role of adults for Building the Lifelong Learning Society. Procedia-Social and Behavioral Sciences. 180, 1215-1220.
[55] UNESCO. (2009). Global Report on Adult Learning and Education. UNESCO Institute for Lifelong Learning.
[56] Vink, P. (2005). Comfort and Design: Principles and Good Practice. CRC Press.
[57] Widianto, E. (2013). Batik Tradisional Kurang Terlindungi. Tempo. http://www.tempo.co/topik/masalah/2055/batik.