

PRODUCT INNOVATION AND PROCESS INNOVATION OF MADURA BATIK ENTREPRENEURS IN SURABAYA

Tri Siwi Agustina^a, Elsyahfira Nabilla Ammary^b

^aFaculty of Economic and Business, Airlangga University

^bSchool of Pascasarjana, Airlangga University

Corresponding author: siwi@feb.unair.ac.id

Abstract

Innovation must be done by entrepreneurs to be able to survive in the midst of business competition. This study examines the product innovation and process innovation of Madura batik on Madura batik entrepreneurs in Surabaya because there have not been many studies on this topic. Data collection method in this research are interviews and observations. Observations were done at the place of business owned by informants who are Madura batik entrepreneurs. The results showed that product innovation in Madura batik were patterns, motifs, colors, and product diversification. While the innovation processes on Madura batik are manufacturing techniques and equipment. Madura batik entrepreneurship innovation sources come from two sources, there were internal sources and external sources. Internal source comes from entrepreneur. While external source comes from customer or market, social change, internet, and the environment. Innovation barriers that faced by Madura batik entrepreneur were lack of innovation structure, resistance of change, shortage of resources, and lack of collaboration. Product innovation and process innovation implemented by Madura batik entrepreneur is entrepreneur centric because employees who work in Madura batik entrepreneur business place have not been fully involved in the innovation process. The conclusion of this research is that entrepreneurship as an aspect of human resources in the Madura batik industry is the main foundation for the success and sustainability of Madura batik product innovation and process innovation. To achieve sustainable innovation the entrepreneur must optimize all the resources, including human resources, that is employees. So, it is important for entrepreneur to involve their employees to such training to improve their skill and knowledge in batik for the sake innovation in entrepreneur's business.

Keywords: Product innovation, process innovation, entrepreneur, Madura batik

Corresponding author: siwi@feb.unair.ac.id

INTRODUCTION

Indonesia rich of batik which spread in every places. There is an interesting story of batik development's journey in Indonesia. The end of the 17th century was the beginning of batik development in Java. At that time, Batik tulis was the most produced. Meanwhile batik cap began to develop in 1920. Batik development is very related to Majapahit Kingdom and the time when Islamic influence spread in Java. Batik started to develop during the reign of Majapahit Kingdom and continued until the reign of Solo Kingdom and the reign of Jogjakarta Kingdom (NurainundanRasyimah, 2008).

Based on the listing result of economic census in 2016 by Badan Pusat Statistik, there are 8.203.826 of creative economic entrepreneurs in Indonesia. Batik is one of the creative economic subsector's part. As the part of the traditional arts, batik included in top three creative economic subsectors which dominate in Indonesia with the detail percentage: Culinary (67,66%),

Fashion(15,00%), and Traditional art (14,56%) (Badan Pusat Statistik, 2017).

As well as the other industrial sectors, as the part of creative economic industry, batik also has values chain system. The values chain included the raw materials, production activities (the involvement of human resources as the actor of production), technology (canting, cap (stamp), and printing), and rights (rights of intellectual property). In addition of production activity, there are also promotion and selling, institutional, and capital accessibility. As a values chain system, if there is one weak aspect, it will hinder the system's performance (Kementerian Perindustrian, 2013: 8).

The challenges of batik industrial in Indonesia is how to survive in a big market competing with other local batik from other regions or even with other countries. China and Vietnam have developed and operated batik printing machines with advanced technology. In Indonesia batik printing from China sold with cheaper price than the local

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one (Nuraini and Rasyimah, 2008).

Business competitiveness is a necessity. Hence, the key of success in facing and surviving the business competitiveness is by making innovation. A business that wants profit and wants to survive in a business competition should focus on productivity. One of the important aspects in productivity is by making innovations. The purpose of innovations are for getting the profit, production, and the main goal of market, such as quality production improvement, production cost control, targeting the new market, production flexibility or management performance improvement of the company (Quadros *et. al.* in Nicolau and Maria, 2013: 72). The importance of innovation emphasized by Hon & Lui (in Lee *et. al.*, 2019) that a company needs a strategy which can be used for surviving in the pressure of business competition. The strategy is the innovation.

Batik as a commodity has to innovate because of the external environment's pressure. eventually, entrepreneurs and batik craftsmen are required to always find a new idea of batik that will be sold to the customers. The purpose of requirement to adapt with the environmental change that cause innovation of batik is to revive the competitiveness of the entrepreneurs and batik craftsmen themselves. Economy influences the batik entrepreneurs to innovate (Raditya, 2016: 137). Madura batik has a big potential. As Gati Wibawaningsih (in Kementerian Perindustrian, 2018), the Director General of Small Middle Industry, Ministry of Industrial, said that one of the batik in Indonesia which has a big potential as export commodity is Madura batik. The abundant availability of raw materials and the pattern that shows unique aesthetic image make Madura batik a high-quality batik with affordable price.

If we refer to the position of Madura batik in local batik and import batik business competition in Indonesia, the kind of innovation which implemented by Madura batik entrepreneurs are product innovation and process innovation. These two kinds of innovation complement each other. The aspect of a product, such as the visual, supported by a good production process, will improve the product's quality. According to Fayolle (2007: 77), both product innovation and process innovation aimed to increase the value and competitiveness of the product. Both innovations are the example of the best new value creation of a product.

Entrepreneurs as one of the human resources in Madura batik industry, not only they have the role to conserve the Madura batik as the cultural heritage. Madura batik entrepreneurs also have an important role to conserve the sustainability of Madura batik businesses. That important contribution can be manifested through the innovation implementation. The innovation implementation is expected to continue. Thus, it is important for Madura batik entrepreneurs to know the right strategies and methods for maintaining the business, aside from knowing product and process innovation.

LITERATURE REVIEW

Product innovation is a new product or a new service. In other side, it can also mean as a developing product or service, because there is a significant improvement to the components, technology specification and material, product's software, easily use and other functional characteristics (OECD, 2015). Product innovation is the innovation of product and service, so it becomes new or the improvement of the previous product. For example, a

significant improvement of technology specification, components, and materials, or others functional characteristics (Wikhamn, 2018). Meanwhile, Hjalager (2010) stated that product innovation refers to a change which contains a new value that known directly by the customers. Product innovation emphasizes to the aspect of the new value in product or service. On the other hand, Crawford & De Benedetto (2000) explained that product innovation is innovation where the new product is made. The new product then put into the market. Product innovation, in this case, also include the renewal of the product's function.

Process innovation refers to the initiative to improve the effectiveness and productivity. Investation in technology is a common thing in process innovation. Process innovation can be used to improve the service for the customers and improve the value of the product (Hjalager, 2010). Meanwhile Wikhamn (2018) said that process innovation is the implementation of new production method or shipment method which involves the change on techniques. OECD (2020) also explained that process innovation is a new or significantly improved production method or shipment method. The significant change includes techniques, tools, and or software. Meanwhile, Rademakers (2005) stated that process innovation is the use of a new method to enhance the utility value of a product. One of the method used is technology, which expected to give a better productivity.

RESEARCH METHOD

This qualitative research used phenomenology approachment. The reason of using that method is because this research aimed to describe and analyse a social phenomenon. The data gathered by interview and observation of the informants to know the phenomenon happens in informant's environment. Henceforth, the data was processed and analysed so that we know the phenomenon thoroughly. The phenomenon studied in this research is the product innovation and process innovation of Madura batik entrepreneurs's business in Surabaya.

Informants of this research are Madura batik entrepreneurs and their batik craftsmen or employees who lives in Surabaya. The following is the table of informants in this research:

Table 1.1 Research's Informant Profiles

No.	Informant's Name	Occupation	Detail Information
1.	Usman Syarif	Madura batik entrepreneur	Key informant
2.	Siti Fatimah	Madura batik entrepreneur	Supporting informant
3.	Tun	Madura batik craftsman and taylor	Supporting informant

(Source: Private data)

The data analysis in this research is simultaneous, means that the analysis data was done since the data gathering process until the last step of the research. Thus, the researcher has to always analyse the data (Arianto, 2016: 16). It can be understood that the researcher is already analysing the result of interviews even analysing it during the interviews. Therefore, when the researcher has not reached the answer that they want, they can ask more question until it reaches the saturation of data. This research implemented data analysis on the field using

Miles and Huberman's model. The data analysis activities are data reduction, data presentation, and verification (Sugiyono, 2011: 246).

RESULT AND DISCUSSION

The product innovation implemented by the Madura batik entrepreneurs are the patterns, motifs, colours, dan diversification of product. The reasons of the entrepreneurs to do the product innovation are to make a characteristic product of the entrepreneurs, to meet the customer's needs, and to adjust to the fashion trend. In developing the product innovation, the entrepreneurs always observe and do trial and error to make sure that the product innovations are worth to be sold to the customers.

Process innovation which is implemented by Madura batik entrepreneurs are production techniques, tools, and raw materials. The reason they implement process innovation are to increase competitiveness value of the products, time effectiveness, and productivity. The use of electric canting and electric stove in the making process makes the craftsmen easier to make the batik. It also makes the process of drawing batik faster than before.

Figure 1.1 Traditional Canting



Figure 1.2 Electric Canting

Considering the importance of innovation, the following are the aspects that can be implemented by the entrepreneurs to synergize with the employees or the craftsmen in order to support the sustainable innovation:

1. Hold some special meeting sessions to brainstorm or to exchange ideas with the employees. It will be better if the sessions hold outside the working hours, thus they have time to find some ideas and exchange ideas to each other's. If it cannot be done outside the working hours, the sessions can be held between the working hours. Related to the intensity of the meeting sessions, it can be done once in a year then the entrepreneurs will decide the right time considering the employee's working time. As Flinders *et. al* (2010) said that the quantity of the meeting for exchanging ideas does not have to always directly proportional with the quality of ideas. It means that if the meeting sessions held in a close time, such as twice a month, the ideas tend to be a formality. Thus, the ideas become not good enough;
2. Do not limit the employees to express their ideas about innovation, whether it is the innovation that has been

implemented or a new innovation to try. If they do not have the same idea, then the entrepreneurs should keep the discussion until they come to an agreement;

3. Motivate the employees to join the batik training sessions to improve their skill in making batik. The trainings can be done independently by the entrepreneurs or joining the trainings held by the government;
4. Try to listen and understand the employees more. Therefore, it will encourage the employees to express their ideas without worrying to be judged. If the ideas do not fit the situation, the entrepreneurs should not blame them and say that they are wrong;
5. Give reward to the employee who gives a new idea. For example, the idea makes the product be the most favourable and bestseller. The entrepreneurs can give some compensation for their hard work on making the ideas. It can be a direct compensation or indirect compensation (Lee *et al.*, 2019);
6. The entrepreneurs should be open minded to every ideas and suggestion from the employees. Such as, the employees who are in charge of colouring can give ideas about a new motif or patterns to the entrepreneurs or the other craftsmen.

Generating idea in the step of process innovation, it will be better for the entrepreneurs to analyse the idea before they move to the idea conversion. The purpose of analysing data is to make the products or tools with the new idea manifestation can last long. Analysis can be done by implementing SWOT analysis (Strength, Weakness, Opportunity, and Threatness), hence it may minimize the chance of innovation's failures in the middle of process. Sammuci-Bonnici and David (2015) stated that SWOT analysis can be used to analyse the innovations.

CONCLUSION

Eventually, the involvement of every resource aspects in Madura batik industry, especially entrepreneurs and the employees, need to continue the innovation. In the process innovation, it is important for the entrepreneurs to involve the employees. Referring to the research's result, involving the role of the employees in the innovation process without limiting them by their job is a strategy that can be used to maintain the continuity of the product innovation and the process innovation. In addition, the involvement of the employees in process innovation should not be limited by their skill area. Therefore, it will erase the resistancy of the employees to the change and appreciate the employees as the human resource. Without the employees, the opportunity rate of the implemented innovations to continue is low. To increase the employee's capacity in innovation, the entrepreneurs can give them some trainings, whether it is independent trainings or trainings held by the external parties such as the government.

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