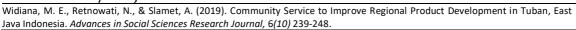
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## Community Service to Improve Regional Product Development in Tuban, East Java Indonesia

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### **ABSTRACT**

Batik has been designated by UNESCO as a Humanitarian Heritage for Oral and Non-Buddhist Culture (Masterpieces of the Oral and Intangible Heritage of Humanity). Tuban is one of the cities in Indonesia that produces superior Gedog batik products. Batik is a fabric drawn with a night that has certain peculiarities. The Regional Superior Product Development Program is a community service program with the aim of advancing the Tuban area through its batik products. The problem of partners in this production is the production process, marketing, operational activities, market penetration and also community resources. The results of this activity are (1) Counseling, practice, and assistance in increasing knowledge in the field of coloring and design. (2) Counseling, practice, and assistance in enhancing knowledge in the operational functions of HR management, Marketing, Finance and information and production. Knowledge and ability to manage a business with the knowledge of operational functions of basic knowledge management that is very necessary in managing businesses that must be owned by all organizational structures in the company. Orderliness in making financial and tax reports. Knowledge, ability and preventive measures to overcome problems from receiving raw materials to marketing.

**Keywords:** Community service, e-commerce, marketing and management

### INTRODUCTION

Not only attractions in the city of Tuban attract tourists, because Tuban is on the northern coast line that makes it easy for tourists to visit. Tuban not only has charming natural potential but has business potential that has high economic value. One of the superior potentials of handicrafts in Tuban which is the potential livelihood of Tuban residents is: Written batik and Gedog weaving which is a superior product which is inherited down and down. Characteristics of batik and Gedog weaving can be seen from the motifs and coloring that are patterned coastal and display a variety of plants and flowers.

The UKM that is a partner is UD. Batik "Lestari Arts" which is located at Dsn. Luwuk Ds.Kedungrejo Rt 02 / Rw 01 Kec. Kerek Tuban, East Java, the owner is Mrs. Sri Lestari. UD Production. Batik "Lestari Arts" is written batik from primis or Gedog weaving with a natural coloring system. Different from batik from Yogyakarta or Central Java, which are more familiar

in various circles of society, Gedog batik from Tuban has a slightly different motif, color, and coloring technique. The most fundamental difference from Gedog batik compared to other batik lies in the selection of materials. Batik Gedog uses weaving as its main material. The weaving itself is made of cotton which is widely planted in the fields around the location of making batik.

Marketing problems experienced by UD. Batik "Sustainable Arts" limitations in market accessibility. It is unfortunate because UD. "Sustainable Arts" batik has a great market opportunity both for end consumers, business organizations, and agencies because the superior product of an area which is a work of art that not all regions have. and has competitive prices so UD. "Sustainable Arts" batik has no difficulty in gaining markets outside East Java, outside the island and even the export market considering that not all regions can produce it. Even if UD. Batik "Lestari Arts" has not penetrated the city and other islands because it has not fully used marketing techniques to open and serve new markets because it does not yet have a showroom or website to display its products.

Batik liquid waste is waste that originates from the preparation process to the finishing process where the liquid waste contains chemicals such as naptol, indigo, reactive substances and soda ash. To overcome the negative impact on the environment it is necessary to strive for a process of treating the batik industry's liquid waste so that liquid waste is obtained that meets the requirements / quality standards.

Currently there are 10 employees owned from around UD. Batik Lestari arts. And when there are orders in large quantities, recruited wholesale workers from the surrounding area or family. These non-permanent employees work to adjust their needs and wholesale systems. The large number of teenagers who drop out of school are reluctant to continue or join parental activities, they prefer to use the time with communication devices / mobile phones. Can be delivered UD. Batik "Lestari arts" runs its business activities traditionally without involving technology and other people. Start the planning and recording of raw materials is still done simply by the owner himself. Problems agreed to be resolved within 3 years are problems of operational management functions which include: Marketing Management, Production, Finance, Information, HR.

The SME sector faces many obstacles in developing its business. In addition to the capital aspect, SMEs still face obstacles in obtaining information and developing markets. The Survey Center for Development of Small and Medium-Sized Enterprises Indonesia (CD SMEs, 2001), found that one of the problems faced by SMEs was its limitations in accessing market information, both domestic and international markets.

To eliminate the weaknesses of SMEs in developing their businesses, one of them is the use of information technology. Internet technology is an option that is often promoted to eliminate the weaknesses of SMEs, especially in obtaining information and accessing markets. Internet technology is believed to provide operational benefits, namely efficiency and strategic benefits, namely to support competitive advantage. Operational benefits, including efficiency of transaction costs, accelerate transactions and exchange information. Strategic benefits include integrating supply chain management, building relationships, understanding the market better (customer relation management) and being able to reach wider geographical markets (Chau, 2001; Lin, 2002). To support the accelerated adoption of internet technology, various parties in Indonesia, both government agencies, NGOs, and the private sector, have sought to promote internet technology and facilitate it, so that SMEs are accustomed to using it.

This study aims to (1) understand (understanding) and (2) construct theoretical and practical models that explain the process of internet adoption and the relational role of reforming agents in the adoption process. To achieve this goal, this research uses a case study approach to building theory (case study for theory buildings. Multi sources of evidence and instruments used in this study, including in-depth interviews and documents are the main data sources of each selected SME. So that they are able to help develop UKM in Tuban, so that it will simultaneously improve economic growth in the area.

### LANDASAN TEORI

### **Researh Gap with Prior Research**

The theme of the study of the adoption of organizational innovation has been done a lot, but studies that examine in full how the adoption process takes place and how the relational role of reforming agents in the process does not yet exist. Most studies on innovation adoption are conducted separately between the antecedents, processes and consequences of adoption of innovation in the context of SMEs, so a comprehensive understanding of this problem has not yet been obtained. Furthermore, in the process of adopting innovation, the role of the reforming agent is very important, to encourage changes in society in general, and the client self in particular in order to accept innovation. However, examining the role of reform agents in the adoption of internet technology innovations, this can be said to be still limited, and is more widely explored in studies of relational marketers.

Some previous studies examining antecedents include The Asia Foundation / TAF (2002), Kendal, et al (2001), Lee and Baek (2001), LaRose and Hoag (1996), Sathye and Beal (2001), Van Akkeren and Cavaye (2001), Scupola (2002), and Srinivasan et al. (2002). Studies examining the adoption process include Livari and Janson (2001). Studies that emphasize the implementation process include Chan and Swatman (1999), but in the context of large companies. Furthermore, in addition to the empirical study, several meta-analyzes (literature review) in this area were carried out by Fichinan (1992) and Frambach and Schillewaert (1999). From these studies, only the TAP study (2002) was conducted in Indonesia, while other studies were conducted in developed economies. Thus, an understanding of the process of adopting internet technology innovations by SMEs in the context of Indonesia is still very much needed.

### **Limitation of SMEs**

Two approaches have been reached in defining SMEs, namely quantitative and qualitative (Clapham, 1991: 2; Kuwayama, 2001: 11). According to the quantitative approach, the definition of SMEs is determined by the number of factors of production owned, namely the number of workers, the amount of capital (fixed assets), the type of technology used (manual / modern), and energy sources (Kuwayama, 2001). Based on the quantitative approach, the definition of SMEs has not been obtained universally uniformity (Kuwayama, 2001). For research reference, the definition of SMEs that are used is based on the number of workers according to the Central Bureau of Statistics criteria, which determine the limits of SMEs as follows: Business scale based on the number of workers, namely:

- 1. Large businesses: 100 or more workers
- 2. Medium-sized businesses: 20 to 99 workers.
- 3. Small businesses: 5 to 19 workers.
- 4. Household businesses: 1 to 4 workers.

Although according to a quantitative approach, SMEs do not have a uniform definition, but qualitatively SMEs have different characteristics from large businesses, that is, if reviewed and managerial and organizational perspectives (Clapham, 1991: 2; Kuwayama, 2001).

Clapham (1991: 2), provides a good illustration of the qualitative characteristics of SMEs as follows:

- 1) Generally the owner and its management are independent, meaning that it is not a subsidiary, branch, or affiliated with a large business.
- 2) Tend to be controlled by the owner who often doubles as a manager, as well as the company's capital is its own capital.
- 3) The principles of the decision making function are inherent to the owner.

### **Internet, E-business, and E-commerce**

McLeod and Schell (2001: 54), briefly defines the internet as the "networks of networks" of computers throughout the world. More operational Ustadiyanto (2001: 1) states, "The internet is a tool for disseminating information globally, a mechanism for disseminating information and a medium for collaborating and interacting between individuals using computers without being hindered by geographical boundaries."

The important thing that can be drawn from the understanding of the internet is applications that are derived from the existence of the internet. The internet is a medium or infrastructure of various applications, such as email, the World Wide Web (www), e-commerce, etc. Therefore in everyday conversation, the notion of the internet is often equated with email, www, homepage, web site, e-sales, e-procurement, e-commerce, e-business, e-marketing, and others.

E-commerce and e-business, basically are business activities and telecommunications technology networks as infrastructure. Indeed e-commerce can not only be based on internet technology, but can also be based on other telecommunications network technologies, such as extranet or EDI, value added network (VAN), and direct connectivity for data communication (McLeod and Schell, 2001). In this study the notion of e-commerce is the use of internet technology to facilitate business activities as follows:

- 1. Looking for business information, including information on potential buyers, competitor information, raw material information / suppliers, etc. This activity is unidirectional which can be done through browsing.
- 2. Exchange business information, via email or news groups.
- 3. Product promotion through the web site.
- 4. Transactions (receipt and delivery of orders via the internet).

E-commerce is classified based on the dimensions of the transaction. Clarke (2002) classifies e-commerce in detail as follows:

- 1. Government-to-government (G2G), is the exchange of information for coordination between government agencies.
- 2. Government-to-business (G2B), Government-to-consumers (G2C), business-to-government (B2G), and consumers-to-government (C2G), or called the public sector, is the exchange of information between government agencies with outside communities (companies, consumers, citizens).
- 3. Business-to-business (B2B) is a product, service, or information transaction between companies or between organizations.
- 4. Business-to-consumer (B2C) is the transaction of products, services, or information between a company and its customers. For example Glodok.com (selling electronic products online), Sanur Online and Amazon.com (selling books online).
- 5. Consumer-to-business (C2B) is a transaction where individuals sell products to companies. This can also mean individuals who are looking for sellers online to get products for a certain price.

6. Consumer-to-consumer (C2C) is a product, service, or information transaction between consumers.

The benefits of e-commerce can be classified into two, namely operational benefits and strategic benefits (Chau, 2001). Operational benefits relate to the impact of e-commerce adoption on organizational efficiency, while strategic benefits relate to competitive advantage for adopters.

### STATEMENT OF PROBLEM AND SOLUTIONS

As a form of response to batik as an original work of Indonesia and see the enthusiasm of the craftsmen in each city to produce batik. Then the existence of batik should really get attention. Problems related to standards as a product must be met. Based on the problem of Standardization One area that requires a color standardization method is the batik industry. It becomes very important so that batik can be produced with good quality and consistent batik colors (Arum Restu Widyasti, Astuti Lestari, Khoirul Amri, Fakhrizal Naufal, 2008) and WWTP which is an engineering structure and equipment and equipment specifically designed for process or treat process residual liquid, so that the remaining process becomes feasible discharged into the environment. Process residual liquid or waste can come from industrial, factory, agricultural, and urban processes which are nothing but the result of household waste. The results of these disposal can endanger humans and the environment, therefore further processing is needed before being discharged into the sewer (Patrick, nd) Considering the many uses of WWTP, among others: 1) Manage and treat wastewater, especially industrial wastes containing components chemicals, so that waste discharged into the environment does not pollute the environment.2) Process domestic and industrial wastewater so that water can be reused according to their individual needs. 3) Keep the life of the biota that lives in the river remain sustainable (Patrick, n.d.)

Then an agreement was reached for the proposing team from the Ubhara University of Surabaya and ITS Surabaya with UD partners. Batik "Lestari Arts", then the solutions offered in this program refer to the objectives of the program, the problems faced by partners, and the capacity of the tertiary institution. It should also be noted that this program not only provides benefits to partners, but also provides benefits to the parties involved in this program so that this mutually beneficial partnership can run continuously. UD industrial development. Batik "Lestari Arts" has quite good economic potential and is worth developing. In addition to providing business development benefits, it can increase production capacity to meet market demand and is a superior product from the coastal area of Tuban district. And also have an impact on improving the economy of the area of Tuban. The steps of activities carried out can be briefly described through Figure 1 as follows:

# Production process

- improve efficiency
- Using techology to produce

# Market penetration

- branding
- Ecommerce

# Empowering program for Batik SMEs in Tuban Indonesia

### Waste and treatment

- Waste management
- Natural color

### Management and Finance

- tax and service
- finance management

Fig. 1 empowering programs

The problems and solutions for the activities compiled can be described in detail as follows:

### 1. Production problems

To increase production capacity, it can be helped by the use of better tools in the production process, such as the use of electric stoves as a medium to melt plasticine used for batik. In addition, electronic canting is also used that can help simplify the production process.

The advantages of using electric canting compared to ordinary canting, of course, at the time of its use. If you use traditional canting, every time you want to make a motive you have to blow the canting cucuk first so that the night is not blocked and can flow smoothly. Whereas with an electric canting, such a thing does not need to be done, so that the process of making patterns is more quickly completed. Using an electric canting makes work more efficient, time-saving and of course cost-effective. Night can be directly penetrated on the back of the batik cloth without having to go back and forth. Electric canting is easier to use, especially for beginners who don't want to be exposed to smoke from the stove used to melt candles or night. With electric canting working on batik becomes easier, although it must remain painstaking and careful. Canting electricity / electric equipped with a night lever regulator. The canting (pin) can be changed according to the needs when working, the night / candle will not spill because there is a night stop valve so it is safer to use.

Increased production capacity and optimization of production processes with appropriate technology, namely electric stoves and electric canting. Building design, training, assistance for the use and maintenance of electric stoves or electric canting that serves to heat the previous candle using a brazier. The faster production process is usually 2 days for easy motifs and 6 days for difficult motifs. With the use of electric stoves or electric canting, production can be 50% time efficient. Namely with an electric stove or electric canting, the time used is 1 day for easy motifs and 2-3 days for difficult motifs.

### 2. The problem of waste and its treatment.

Then in the case of waste, assistance is needed in handling it. Here a mechanism for disposing of waste produced from batik is generally built in the form of hazardous synthetic dyes. In addition, the location of adjacent SMEs allows the concentration of waste in one area so that it is dangerous for health and the environment in the long run. Waste treatment techniques by making wastewater treatment plants (WWTP).

The design, training, assistance for the use and maintenance of the WWTP system is located in the yard, right next to the illumination area (separation of night / wax from fabric). The consideration is the process of highlighting is the process that contributes the most waste because not only the wax is released from the fabric, but also a little runoff of coloring agents and soda ash used in the lighting process. Normatively, the government has made rules regarding the treatment of liquid waste, including Minister of the Environment Regulation No. 5 of 2014.

### 3. Financial management

So far the operational activities have not been carried out in a professional manner. Then it is necessary to strengthen knowledge of the operational functions of financial management. Namely making financial reports continuously every month along with the tax returns. Financial management operational activities so far have not been carried out in a professional manner as long as this is still carried out with the family system considering that permanent employees are from their own families so those related to finance are held by SME owners. So to prepare as an organized and professional organization strengthening and regular accounting is needed along with preparing tax reporting as a government regulation for SMEs. Then the training, assistance and ability in making bookkeeping and tax reporting as a provision of the government.

The operational function of development management has recently shown that large and medium-sized companies are beginning to experience a shift that was initially static to become more dynamic. These things are then developed into a more dynamic operational management system that is not rigid to changes in order to be able to compete with consumers. To improve the efficiency and effectiveness of the company's work in order to obtain human resources loyal to the UD company. Batik "Lestari Arts" and products that have advantages. Financial management operational activities so far have not been carried out in a professional manner as long as this is still carried out with the family system considering that permanent employees are from their own families so those related to finance are held by SME owners. So to prepare as an organized and professional organization strengthening and regular accounting is needed along with preparing tax reporting as a government regulation for SMEs. Besides that, SMIs are able to plan from raw materials needed until the products are ready to sell and minimize risk by understanding the knowledge they have, namely: Risk Analysis and Mitigation.

### 4. Marketing issues

IKM Batik UD. Batik "Lestari Arts" in marketing its products has not been given packaging, as well as labels and brands. To maintain the stability and business development of UD. Batik "Lestari arts", and its product development needs to innovate and create for: packaging, labels and brands. So with this activity carried out a distinctive characterization of the batik, so the bias has a branding and its own brand that can be known by the wider community. The management of this brand is carried out to the related offices and the Indonesian industry and trade department.

IKM Batik UD. Batik "Lestari Arts" in marketing its products is still limited. Conducted in a conventional manner so that marketing is still limited around the East Java region. With the use of the SMEs website. Batik "sustainable arts" is able to expand its marketing to foreign countries, has a webside that can be used and can be accessed by customers and prospective buyers from other regions, outside the city and even abroad. Thus the superior products from Tuban are increasingly known. With the increase in IKM income, the regional original income has also increased to maintain the stability and business development of UD. Batik "Lestari arts", Design and update product information through e-commerce in order to expand the marketing area even to foreign countries.

### **CONCLUSION**

From the activities that have been carried out it can be concluded that some interesting things from various aspects of the field, which can be described as follows.

In the aspect of program implementation in general, it was well received by SMEs and was felt to be very helpful in the assistance process that had been carried out. This can be seen from the enthusiasm and desire to develop from SMEs so as not to stagnate in seeing market movements. On the production side, SMEs are able to adopt production equipment well, so as to increase their production work time faster.

In terms of handling waste they are also positively committed to starting to pay attention to the waste generated from each production so it does not pollute the environment. Better yet, they together with similar SMEs in one area agreed to use a shared waste installation media so that they could treat their waste together. This also positively provides a new alternative in coloring so that it can reduce the waste produced every day.

At the adoption decision-making stage, the involvement of the manager / owner is very dominant, the involvement of the SME manager / owner referent group is also more dominant than the SME employees themselves. The more parties involved in the adoption decision-making process, the longer it takes, and the more formal the decision-making mechanism. The characteristic of innovation considered in the decision to adopt internet technology is the perception of relative advantages and compatibility, while the perception of the complexity of internet technology is only realized when SMEs have implemented internet technology. Limited knowledge of SME management, causing the inability and awareness to follow the development of internet technology and the rules of the game in e-commerce practice.

The characteristics of connectionless and virtuality of internet technology save latent problems, which cannot be solved by the technology itself, namely the problem of trust and transaction risk between SMEs and prospective buyers, especially for B2B e-commerce applications. The less formal organizational structure factors, the lack of knowledge of management and employees of SMEs, the lack of internal marketing, and the lack of readiness of SMEs in the aspects of human resources and target markets, prevented SMEs from implementing internet technology for e-commerce practices. Lack of critical mass adoption of

internet technology in Indonesia and the lack of intensive interaction with reform agents / consultants, hamper SMEs in implementing internet technology.

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