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Will Natural-dying Batik SMEs Compete in Asian Economic Community?

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Abstract
Being claimed as playing vital role for economic development in Indonesia, Small and Medium Enterprise (SME) still has many challenges to be aware of. Some of them are the the free market of Asean Economic Community and the competitiveness of the SME compared to other similar products. One of the outstanding SMEs is Batik SME in Central Java. Recently, Batik has been becoming popular due to its natural dying used. As people have been discussing a lot about this kind of Batik, this research focuses on analysing its competitiveness to ensure whether the natural-dying Batik can compete with other similar products in this very competitive world, especiall ASEAN market. To understand their position of competitiveness, this study elaborated its profile so that it can be better known its existence to inform other related stakeholders. To find their competitiveness, the research collected primary data using primary and secondary data. Questionnaires distribution and interview to ten Batik makers were conducted. The the data were analysed using SWOT descriptive analysis and Internal and External (IE) Matrix after IFAS was used. From the data analysis, it was found that the natural dying Batik is very potential to develop by using certain strategis. Based on the formulation of alternative strategy using Internal and External (IE) Matrix, natural dying Batik SMEs in Semarang city is at the position of Quadrant 1. The strategies that are recommended to use are Strength-Opportunities (S-O). These strategies suggest natural dying Batik SMEs to take all available opportunities by expanding their market and developing the products.

Keywords: SMEs; Competitiveness; SWOT; Batik SMEs; Natural-dying batik.

1. Introduction
Batik is one of products in Indonesia that is claimed having competitiveness potential in the global market in 2009, Batik is confirmed as one of the Intangible Cultural Heritage of Humanity on October 2009 by UNESCO (Eko, 2016) This has made the demand for Batik increases either from domestic or international market (Syamwil *et al.*, 2015). In the last few years, the Batik for export has increased significantly USD 289 million compare to 2009 as much as USD 23 million. They are exported to United States, Japan, Malaysia, Singapore, Cina, South Korea, the Netherlands, Thailand, and Taiwan. However, regardless its benefit towards economic growth, Batik making process also creates the environmental destruction due to its colouring process.

The existence of natural-dying Batik is expected to solve this problem as it uses natural-based materials to dye the fabric. However, its process takes longer time and creates various colours making them more difficult for having mass production for huge demand. So that, some still doubt whether this SME can compete in such huge various market segment as the other syntetic products are abundant and cheaper. Therefore, as environtmentally-friendly products are becoming idols in the past few years, some believe that natural-dying Batik can compete will have its better potential growth the upcoming years.

In Semarang, Central Java province of Indonesia, there are ten Batik SMEs using natural dying. The natural dying comes from mangrove fruits waste, indigofera leaves, and other colors. They are located in Gunungpati subdistricts, Mangkang, Tugurejon, and Tambakrejo. Some located in Surakarta have been no longer survive. Some have failed to survive due to the making-process complexitiy and they cannot compete with other substitutes products.

2. Literature Review
Tambunan (2001), says that competitiveness of a nation in conducting export is determined by two factors; comparative and competitive advantages. Comparative advantage basically owned by a nation and exists naturally. While competitive advantage is when a nation is able to compete at the international market due to its ability to create high added value. There are some factors determining the SME competitiveness (DPU, Bank Indonesia); internal and external factors. The internal factors include aspects of productivity and innovation of the company itself. This factors can be seen from the quality of human resources, technology literate, international and national

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certificatation, and the relationship between labour force and the skills they have. While the external include the aspect how easy to build the start up, access to capital, market, and infrastructure.

Then the other aspect important to dicuss is externality. It is the impact of certain economic activities towards others. In Mukhlis (2009) argue that externalities happen when an activity influences the welfare of other parties outside the market mechanism. While Fisher (1996) in Mukhlis (2009) define externatlities as activities influencing the welfare of other economic doers outside the market mechanism. The externalities happen when there is marginal social and private cost of certain goods. There are positive and negative externality; Positive and negative ones. The first one means the positive impacts for others due to the 4. products (Prasetyia, 2012). While the last means the economics activities which have negative impacts to others such as environment pollution from industrial activities.

According to Albino, Ballice and Dangellico in Durif (2010), Environmental-friendly product is defined as "Product Design to minimize its environmental impacts during its whole life-cycle. In particular, non-renewable resource use is minimized, toxic material are avoided and renewable resource use take place in accordance with their rate of replenishment". It means that the raw materials for production, its process, and its use ensure its safety for the earth and the users. All dangerous materials are avoided and the process of the production is aware of the environment. The act no.23, 1997 has also created better awareness from society to produce and finally use the environmentally friendly products (Giyatno, 2013).

Therefore, it is very relevant to revisit the real condition of the Batik SMEs and its competitiveness position in the current freetrade from other ASEAN countries. Having this study is important as a contribution for the current issue faced by natural-dying Batik SMEs as there were only a few of them that still exist. A research conducted by Susanti (2015) on the impact of Batik industry towards economy using SWOT analysis in Kliwon Market subdistrict found that the Batik industry was at the level of Quadrant 1 or at the aggresive position. Therefore, it was suggested that the strategy that can be used to improve the competitiveness is to optimally make use of its strength and potential by maintaining the product qulaity and expand the marketing network.

3. Data and Methodology

Primary data were employed by involving eight respondents who are the owners of the Batik. They are located in Gunungpati subdistrict. They were selected because it is confirmed that they are included as the Batik firms having natural dying niche who still exist. The primary data were gathered through questionnaires distribution, and interview. Four respondents were found to make Batik only based on order, and the rest have production process daily. Five Batik makers have the raw materials supplied by the other bigger firms, and the other three, they created their own natural dying. While the secondary data were collected from related publication of official institutions such as Statistics Center Bureau (BPS), Ministry of Industry, and Cooperative and SMEs Board.

Then, descriptive analysis was used to analyse the data. It means that the gathered real data were interpreted as the way it is. It was used to elaborate the profile of the respondents, their real conditions, and the factula existing problems. To ensure the deep analysis of the Batik related issues, this study used SWOT analysis. It aimed to identify any related factors influencing the existing of the Batik producers. There were classified into four; strengths, weakness, opportunity, and threat. It is expected that by knowing these internal factors, some conclusion can be drawn leading to certain strategies or solutions.

Then, to understand the position of these eight firms, we used SWOT quadrant diagram as in figure 1:

Figure-1. SWOT Quadrant Diagram
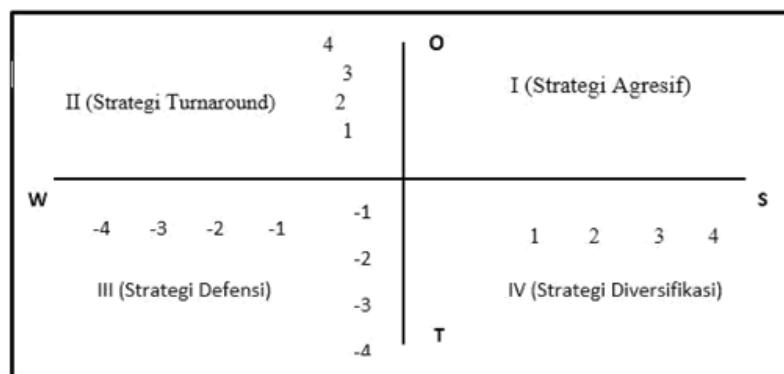
4. Results

Based on the data gathered, and table 1 shows the SWOT Matrix gained from the primary data.

Table-1. SWOT Matriks

	Strenght	Weakness
Internal **External**	- the use of natural dying material - quality of the product - program for economic development and facilitation - Selected materials - competitive prices	- lack of knowledge for production process and the difficulty to find the materials for natural dying/ friendly raw materials - The use of technology - promotional tools
Opportunity - Batik has huge market - ASEAN free market - Policy to develop friendly environmentally products.	- expand the market through innovation, creativity, - product development or variation - maintaining product quality to keep loyal customers.	- Maximize the promotion through website, and also join any product promotion tools. - using other alternative materials to maintain product quality.
- the changing of lifestyle to use environmentally friendly products. - innovation in the form of art	- using natural materials having good quality to lessen the negative externalities.	
Threat - high competitive market in Semarang city - new competitors especially import Batik. - substitute products - there is no HAKI facilities yet	- Maintain product quality - able to see any opportunities in the market and product innovation - creating products which have certain characteristics - finding suppliers that have high quality materials.	- Maintain the customers' loyalty.

Source: Primary data, processed.

Based on the identification of internal strategic factors, the matrix of IFAS (*Internal Factor Analysis Strategy*) was made, scored, and ranked based on the variables of its weaknesses and strengths. After each variable was ranked, the average score was made. Then, the main weakness and strength of the Batik SMEs can be found (Table 2).

Table-2. Matriks IFAS Analysi

Internal Strategic Factor	Score 1	Score 2	Score 3	Score 4	Score 5	Score 6	Score Rata2	Score Rata2	Final score
Strength									
The use of environmentally friendly raw materials	0.145	0.132	0.147	0.100	0.104	0.115	**0.124**	4.000	0.496
Selective raw materials	0.109	0.132	0.112	0.100	0.104	0.115	**0.112**	4.000	0.448
Various prices	0.080	0.060	0.084	0.108	0.088	0.108	**0.088**	3.200	0.281
Quality product that meet the need of the consumers	0.123	0.099	0.105	0.131	0.144	0.101	**0.117**	3.700	0.433
Product innovation	0.109	0.099	0.126	0.138	0.120	0.108	**0.117**	3.700	0.432
Total score for strength									**2.090**
Weakness									
The difficulty to have environmentally friendly raw materials	0.116	0.126	0.119	0.115	0.128	0.122	**0.121**	2.300	0.278
Lack of promotion media	0.094	0.132	0.091	0.092	0.072	0.086	**0.095**	2.300	0.218
The long process to make Batik	0.094	0.093	0.098	0.100	0.104	0.108	**0.099**	2.000	0.199
Lack of knowledge in production process and material to produce environmental friendly products.	0.130	0.126	0.119	0.115	0.136	0.137	**0.127**	1.800	0.229
Total Score for weakness.									**0.924**
Total IFAS									**3.014**

The result of the IFAS analysis matrix on the internal strategic factor, it was found that the main strength for Batik SMEs in Semarang city is the use of the natural raw materials and and the selection having its score as much as 0.496, and 0.448. The numbers shows that the respondents confirm that the most crucial elemennt of the products compared to others is its natural raw materials which are used in the production process.

Then, the main weakness of the Batik SMEs in Semarang city is the lack of environmental friendly raw material availability. Its average score reaches 0.278 which is the highest score among other variables. However, the average total score is 3.014 consisting of total average score 2.090, and 0.9241 for its weakness. Therefore, it can be said that the whole internal strength is 2.5. It can be concluded that Batik SMEs have the strong position at the use of raw materials which are environmentally friendly. This can solve the problems faced by SMEs. This happens because most of the repsondents still use the raw materials produced by themselves and also some suppliers of ennvironmentally friendly raw materials. Therefore, we can conclude that by the use of the natural dying by the SME Batik, it is potential to improve the Batik SMEs in Semarang city.

Then, after the analysis of the IFAS, the Internal and External (IE) matrix is made as in table 3.

Table-3. IE Matrix

	strong	average	weak
	(3.0-4.0)	(2.0-2.99)	(1.0-1.99)
high (3.0 -4.0)	**I (3.014; 3.196)**	II	III
medium (2.0-2.99)	IV	V	VI
low (1.0-1.99)	VII	VIII	IX

Source: Primary Data Primer, processed.

Based on table 3, the position of the Batik SMEs is at the first quadrant. It means that they have high internal and strong external capacity improve. In this stage, the natural dying Batik SMEs are still struggling to improve either

sales, assets, or profit. Therefore, having said this, the best startegy to improve the Batik SMEs is to lower the price, develop new products, improve product quality, and or expand the market.

5. Conclusion

Based on the analysis, there are some points can be concluded. First, the use of environmentally friendly raw materials, and second, the selection criteria for the raw materials to ensure the product quality. While, the weaknesses are the scarcity of raw material which are environmentally friendly, and the lack of knowledge in the production process. Then, natural dying Batik SMEs has an opportunity to be developed since there is a policy driving products which use environmentally friendly raw materisl. However, it is unfortunate that most of them have no HAKI facilitation to patent their invention especially their Batik motifs.

Based on the formulation of alternative strategy using Internal and External (IE) Matrix, natural dying Batik SMEs in Semarang city is at the position of Quadrant 1 meaning that they are at the aggresive level. Hence, the appropiate strategy in this level is growth oriented strategy. It means the strategies that are recommended to use are Strength-Opportunities (S-O). These strategies suggest natural dying Batik SMEs to take all available opportunities by expanding their market and developing the products.

Last but not least, to face the ASEAN free market, SMEs have to improve the product quality, providing education related to the use of environmentally friendly products-especially Batik, and to establish better networks with government, other business owners, and other related stakeholders. Having said this it is expected that all stakeholders, especially government such as Planning Board, Cooperative Board, Industrial Board at the city level, and also from provincial level, to be more aggresive in facilitating the development of the SMEs by creating more innovative programmes. One of the them is to provide facilitation to better technology in promoting natural dying Batik to wider community, and also to attract workers to consider making Batik can also be their alternative, productive, and potential work for living.

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