

## COMPETITIVE STRATEGY MODEL FOR PURBALINGGA BATIK

**Suliyanto<sup>1</sup>**

Economics Faculty, Jenderal Soedirman University  
e-mail: suliyanto@yahoo.com

**Siti Zulaikha Wulandari**

Economics Faculty, Jenderal Soedirman University  
e-mail: Zulaikhaw@hotmail.com

**Weni Novandari**

Economics Faculty, Jenderal Soedirman University  
e-mail: weni\_novandari@yahoo.com

### Abstract

Batik Purbalingga has a promising role to increase society's welfare in Purbalingga. This study aims at investigating the problems of and formulating a competitive strategy for Purbalingga Batik, using an Analytical Hierarchy Process. It uses Strength, Weaknesses, Opportunities and Threats and Quantitative Strategic Planning Matrix to formulate a competitive strategy for Purbalingga Batik. It finds that the operational factor, human resources, marketing, financial and business environment are constraints to the formulating process, with operational factor as the dominant one. It suggests that the Strength-Opportunity is the appropriate tool to develop a competitive strategy for Purbalingga Batik.

**Keywords:** Competitive strategy, analytical hierarchy process, quantitative strategic planning matrix, purbalingga batik

**JEL classification numbers:** D21, D22

### Abstrak

Batik Purbalingga memiliki peran yang penting di masa datang untuk meningkatkan kesejahteraan penduduk di wilayah Purbalingga. Penelitian ini bertujuan untuk menyelidiki masalah dan merumuskan strategi kompetitif untuk Batik Purbalingga, dengan menggunakan Proses Hierarkial Analitis. Penelitian ini menggunakan analisis Kekuatan, Kelemahan, Peluang dan Ancaman dan Matrix Kuantitatif Perencanaan Strategis untuk merumuskan strategi kompetitif untuk Batik Purbalingga. Hasil analisis menemukan bahwa faktor operasional, sumber daya manusia, pemasaran, keuangan dan lingkungan bisnis merupakan kendala untuk proses perumusan, dengan faktor operasional sebagai faktor yang dominan. Penelitian ini juga menunjukkan bahwa Kekuatan dan Peluang merupakan alat yang tepat untuk mengembangkan strategi kompetitif untuk Batik Purbalingga.

**Keywords:** Strategi kompetitif, proses hierarkial analitis, matrix kuantitatif perencanaan strategis, batik purbalingga

**JEL classification numbers:** D21, D22

---

<sup>1</sup>Corresponding author

## INTRODUCTION

Batik Purbalingga has not been well developed due to various problems. First, Purbalingga batik has been dominated by natural themes which are not supported by the development of style batik creations and the creations of colour, which has made the themes to be monotonous and relatively similar to Banyumas batik, another batik region industry nearby. Second, it has a production problem, where the craftsman has not been able to do their own batik fabric production process because of a lack in supporting equipment. Third, it experiences distribution and marketing problems, represented as the locally and limited market share.

Fourth, the management system in the industry is not well developed yet, and is considered only as a side job. Fifth, it has a problem of capital access limitations which result in a limited volume of business. Sixth, it faces a regeneration problems, namely most of the batik crafters in Purbalingga are of old in nature, since most youngsters are reluctant to pursue the art of batik. Lastly, it has a price issue, as the batik prices are more expensive than those of printed ones which rely more on capital usage.

Under these conditions, it is necessary to establish an integrated competitive strategy based on the various aspects or comprehensive viewpoints, based on an analysis of internal and external conditions, either in the form of problems, opportunities, threats and challenges. This study aims at finding an effective competitive strategy model based on the Analytical Hierarchy Process (AHP) and the Quantitative Strategic Planning Matrix (QSPM). AHP is used to determine the weight of each factor inhibiting the development of Purbalingga batik industry, so it can be seen which is considered the most crucial problems (having the highest weight). It also attempts to evaluate alternative strategies objectively

choice for competitive strategy using QSPM.

Industrial development of Purbalingga batik has not shown substantial progress for some times. Purbalingga batik spreads in three districts, namely Bojongsari, Bobotsari, and Karangmoncol. The number of craftsmen in the centres of batik up to 2008 does not vary a lot, namely about 242 craftsmen. Many efforts have been done by local governments such as mentoring, coaching and the provision of training, study visits to batik centres in other areas, as well as attending various exhibitions and asking civil servants in government ranks Purbalingga to use batik on Thursdays and Saturdays. However, all these efforts has not resulted in the advancement of the industry.

Currently Purbalingga has established a forum, namely Purbalingga Batik Craftsmen Forum (PBCF), consists of 15 craftsmen batik to unite the craftsmen in order to better compete with batik from other regions. PBCF has made various efforts, such as: using the internet as a means for promotion and marketing, raw material suppliers to exchange information and share their orders with fellow members. If PBCF can develop optimally with the support of the craftsmen, it is hope Purbalingga batik can compete with others and even become dominant sector. But unfortunately, most of the batik craftsmen in Purbalingga have not joined in the forum because of various reasons.

Considering the vast potential of BCF to promote Purbalingga batik, then PBCF needs to support the industry. This paper attempts to do the task by formulating appropriate strategies for Purbalingga batik to better compete the markets. Specifically, the paper identifies the problems related to the industrial development efforts Purbalingga batik, and identifies alternative competitive strategy for Purbalingga batik industry.

Strategy is the way to achieve long-term goals. Business strategy might include geographic expansion, diversification, acquisition, product development, market penetration, staff rationalization, divestment, liquidation and joint ventures (more about strategy is in Lu, 2003; and Bruton et al., 2004; Hambrick (2004) among others).

Strategy formulation is a process of preparing the next steps intended to build the vision and mission of the organization, setting strategic goals and financial companies, and to design strategies to achieve these objectives in order to provide the best customer value. Some actions should be taken in formulating corporate strategy, namely (Peng and Zhou, 2006). First, identifying the environment that will be entered by the company in the future and determine the company's mission to achieve the vision aspired to in the environment. Second, conducting internal and external environmental analysis to measure the strengths and weaknesses and opportunities and threats to be faced by the company in its mission. Third, Formulating measures of success factors (key success factors) of these strategies are designed based on previous analysis. Fourth, determining objectives and measurable targets, evaluate various strategic alternatives by considering the available resources and external conditions faced. Fifth, choosing the most appropriate strategy to achieve short-term and long term.

Main formulating competitive strategy is to connect companies with their environment. Although the relevant environment is very broad covering, social forces as well as economic forces, the main aspects of the corporate environment is the industry or industries in which companies compete. Industrial structure has a strong influence in determining the rules of the game competition as well as the strategies potentially available to companies.

Porter (1980) competitive strategy divides into three general strategies: 1). Differentiation, is offering a different than

the bid offered by competitors. Differentiation strategy implies that the company has a service or product that has the qualities or functions that could distinguish from the competitors. 2) Cost advantages (low cost), is a strategy to streamline the entire production cost of products or services that can be sold cheaper than competitors price. 3). Focus, is the strategy working on one specific target market. The strategy focus is usually done for product or service that does have special characteristics. Some products such as only focus is targeted to a particular segment so that all its products to provide benefits and functions that are tailored to that segment.

Porter's types bear some relationship to other strategic categorizations, typologies, and taxonomies in the literature. For example Hambrick (1983) and Dess and Davis (1984) have discussed cost leadership.

To be able to survive in the competition, companies must have a competitive advantage (competitive advantage) as compared with competitors. Competitive advantage will be a weapon to conquer the market and competition. To build competitive advantage, companies could do a few steps: 1). Finding resources advantages, for example excellent skills, quality resources, and others. 2). Seeking a position advantage over competitors, with efficient production costs and provide added value to consumers. 3). Producing excellent performance, with a look of satisfaction and customer loyalty, market share, and profitability (profitability) of products or services produced.

Analytical Hierarchy Process (AHP) method was developed by Saaty (1990) that allows a decision maker to structure a complex problem in the form of a hierarchy. The first level of the hierarchy is the goal. In the present problem, the goal is to evaluate PBMs effectively. The second level includes the criteria. Relevant criteria needed to evaluate PBMs include drug costs, benefits design, program services to assist covered

employees, administration and distribution, and employee/retiree assessments (Hogan et al., 2009).

The AHP model has been recently applied to a multitude of different corporate and non-corporate problems to improve decision making (Hogan and Olson, 2004, 2006; Ishizaka and Lusti, 2004; Travana, 2004). The major advantage of the model is its ability to accommodate complex qualitative and quantitative information into the decision making process. Other advantages include its simplicity of use and its ability to apply consistency to the decision making process (Hogan et al., 2009).

AHP method helps solve complex problems with the structuring of a hierarchy of criteria, interested parties, the results and by attracting a variety of considerations in order to develop a weight or priority. This method also combines the strength of feeling and logic concerned on various issues, and then synthesizes a diverse variety of considerations into results that match our estimates as presented. (Saaty, 1990).

According to Saaty (1990), there are three principles in solving problems with the AHP, namely the principles set hierarchy (decomposition), the principle of setting priorities (Comparative Judgement), and the principle of logical consistency (Logical Consistency). Hierarchy in question is a hierarchy of problems to be solved to consider the criteria or components that support the achievement of objectives. The process of setting objectives and hierarchy of objectives consider whether the collection of objective and relevant criteria appropriate for the problems faced.

There are four general steps required to implement the AHP (Hogan et al., 2009). First, the decision maker identifies the criteria and determines their relative importance in achieving the goal and identifies the sub-criteria and determines their relative importance in achieving the related criterion. Second, the decision maker determines the relative importance of the rat-

ings categories for each of the sub-criteria. Third, the alternatives are evaluated in the context of each of the ratings categories. Finally, the results are synthesized to compute the relative contribution of the alternatives in achieving the goal.

The strategic-management process can be described as an objective, logical, systematic approach for making major decisions in an organization. It attempts to organize qualitative and quantitative information in a way that allows effective decisions to be made under conditions of uncertainty (David et al., 2009). Although strategic management is not a pure science that lends itself to a nice, neat, one-two-three approach, the process is widely viewed to consist of three distinct stages: strategy formulation, strategy implementation, and strategy evaluation. The QSPM fits into the first stage, strategy formulation, and is an excellent tool for deciding among feasible alternative strategies (David et al., 2009).

Although widely used today in the classroom among business students learning strategic management concepts, the QSPM has not been widely used among businesses actually doing strategic planning. And there are no good reasons why the QSPM should be limited to classroom use! It is an excellent tool for assimilating and prioritizing key internal, external, and competitive information needed for devising an effective strategic plan (David et al., 2009). The relative importance of various facts, figures, trends, and data is deciding among feasible alternative strategies to pursue is critically important in formulating strategies that can provide major competitive advantages to the firm. The QSPM provides a clear framework for this prioritization process (David et al., 2009).

QSPM is the recommended tool for the strategists to evaluate alternative strategies objectively, based on key internal-external success factors that have been identified previously (David et al., 2009). So conceptually, QSPM goal is to establish the

relative attractiveness (relative attractiveness) of a variety of strategies that have been selected, to determine which strategy is best considered to be implemented. QSPM is a tool that allows to objectively evaluate alternative strategies based on external and internal key factors. QSPM is used at the stage of decision making frameworks in strategy formulation analysis.

Overall, the steps in QSPM begins with the stage of data collection and analysis phase (Matching Stage). In Phase Data Collection, use analysis tools External Factor Evaluation Matrix (EFE) and Internal Factor Evaluation (EFI). EFE Matrix (external factor evaluation), is used for decision making in summarizing and evaluating all the information the external environment includes opportunities and threats, while the IFE matrix (internal factor evaluation) was used to summarize and evaluate the main strengths and weaknesses faced by the system. Results of identification of all factors inhibiting the development opportunities and will provide guidance factors opportunities and constraints that must be a priority in determining strategy.

If priority has been determined, then these data can be processed into a strategic direction using the analysis of the Competitive Profile Matrix, Matrix SWOT (Strengths, Weaknesses, Opportunities, and Threats). From the results of comparative analysis of key information can be found as an ingredient in the subsequent analysis phase (The Matching Stage).

Later in the second phase, it carries out the placement of data in quantitative models of strategy formulation. This stage uses a model that is: 1) Competitive Profile Matrix. Matrix Profile Competitive intended to identify strengths and weaknesses of the company's main competitor is associated with the company's strategic position. 2) SWOT Matrix (*Strength, Weakness, Opportunity and Threat Analysis*). The results of the analysis in the table are followed by EFE and IFE using SWOT

analysis. In the SWOT matrix formulation of alternative strategies was done by paired comparison. This comparison is a technique that compares a component with other components in the same category. SWOT Matrix helps in making paired comparisons between Strength, Weakness, Opportunity and Threats. Furthermore, QSPM using input from the analysis at the first stage and the matching results in the second stage as information for further analysis through QSPM in the third stage.

## METHODS

The method used in this research is survey method by using qualitative and quantitative approaches. The sample size in this study is 30. To select respondents as the members of the sample, the paper uses convenience sampling method. The data collection method in this research is a method of triangulation, namely, the method comprising: Observation, Documentation and Interviews (unstructured interviews, structured interviews using a guide and in depth interview questions) to stakeholders associated with industrial development efforts batik in Purbalingga. Data analysis tools used in this study is Analytical Hierarchy Process (AHP) and Strength Weaknesses Opportunities and Threats (SWOT) and Quantitative Strategic Planning Matrix (QSPM).

## RESULTS DISCUSSION

### Characteristics of Respondents

Respondents in this study obtained through consultations and interviews with community chairman Purbalingga batik. Consultation resulted in a drawn sample size of 30 businessmen who live in Purbalingga. Selection of employers who were respondents was based on the size and activities of the company. With characters like these respondents viewed the respondent has had enough knowledge about batik business in Purbalingga.

Descriptive analysis of respondents by age aims to determine the characteristics of respondents by age. Characteristics of respondents by age can be seen in Table 1.

Based on Table 1 can be obtained information that the majority of respondents aged between 41 to 60 years is 70 percent. Respondents aged between 21 to 40 years by 20 percent and aged between 61 to 80 years by 10 percent while the proportion for respondents younger than age 20 years and more than 80 years did not exist. The high proportion of respondents aged between 41 to 60 years due Purbalingga batik business has been engaged in a long time, their low education resulted in their poor skills, while the low age of respondents aged less than 20 years due to the age of the person in general, he was educated, so do not have enough ideas to run a business, they are more concerned to prepare future educational paths. Age 21 to 40 is actually a golden age for an entrepreneur to grow the business, but the difficulty of regeneration batik business cause not many people in this age to his batik business. For women, working in a factory which incidentally Foreign Investment Company (PMA) crate factory wig, fake eyelashes and cigarette becomes a more attractive option than to make batik.

General description of respondents by level of education is used to determine the level of education which is owned by businessman batik in Purbalingga, this is because with increasing levels of education the higher the business insight they have. Table 2 below describes respondents by level of education. Based on Table 2 can be obtained information that the majority of respondents elementary education which reached 80 percent, followed by respondents is 13.33 percent had high school, junior high school-educated respondents and scholars at 3.33 percent respectively, while none of the respondents achieve post-graduate studies respondents. The high school-educated respondents who caused their elementary education did not have much expertise. Expertise batik also obtained a majority of respondents of the study were hereditary from parents. The lack of highly educated entrepreneurs batik as undergraduate and graduate because in general people who graduated from higher education are reluctant to inherit and continue the business, they prefer to be civil servants, private employees and employees of SOEs. For high school graduates of junior high and high school, they prefer to work in a factory rather than continue the work that had been pioneered by their parents.

**Table 1:** Descriptive Respondent by Age

Age of Respondents	Frequency	Percentage
0 - 20 Years	0	0
21 - 40 Years	6	20
41 - 60 Years	21	70
61 - 80 Years	3	10
> 80 Years	0	0
Total	30	100

Source: Data calculation.

**Table 2:** Descriptive Respondent by Education Level

Education Level	Frequency	Percentage
Elementary	24	80,00
Junior High School	1	3,33
Senior High School	4	13,33
Graduate	1	3,33
Post Graduate	0	0,00
Total	30	100,00

Source: Data calculation.

**Table 3:** Frequency and Percentage Respondent by Age of Business

Age of Business	Frequency	Percentage
0 - 10 Years	9	30,00
11 - 20 Years	11	36,67
21 - 30 Years	4	13,33
31 - 40 Years	3	10,00
> 40 Years	3	10,00
Total	30	100,00

Source: Data calculation.

**Table 4:** Descriptive Respondent by Production Capacity

Production capacity	Frequency	Percentage
< 20 units/month	12	40,00
20 – 60 units/month	15	50,00
80 – 140 units/month	0	0,00
160 – 200 units/month	0	0,00
> 200 units/month	3	10,00
Total	30	100,00

Source: Data calculation.

Age of business can be used as an indicator of the level of experience in managing operations and level of ability in maintaining business continuity. Table 3 shows descriptive respondents by age of business.

Based on Table 3 can be obtained information that most business age between 11 to 20 years which reached 36.67 percent, followed by business age between 1 to 10 years reached 30 percent, while the business of age between 21 to 30 years reached 13, 33 percent and the age of 31 to 40 years of business and the business over 40 years of age respectively as much as 10 percent. The average age of the business is 20 years 1 month, based on the above information indicates that the batik business in Purbalingga have a relatively long operating life, but for life business over 21 years is still small it is because often the batik business in Purbalingga are not followed by the next generation, such as the type of Small and Medium Enterprises (SMEs) other.

Production capacity can be used as indicators to determine the size of the company, the greater the production capacity of a company the greater the size of the company and demonstrate the ability of entrepreneurs

in building their business. Table 4 below describes the picture respondents based on the company's production capacity.

Based on Table 4 can be obtained information that most respondents have a batik business with average production capacities 47.8 units per month. Most respondents who have a capacity of 20 to 60 units per month were scored 50 percent. Respondents who have a capacity of less than 20 units per month scores as much as 40 percent, and which has a production capacity per month above 200 units per month as much as 10 percent. Business capacity are largely still under 20 units per month due batik business in Purbalingga generally become household industries (home industry) and number of labour under 4 people. Batik production is also constrained by the materials that had been obtained from outside area that is from Pekalongan and Yogyakarta.

#### **Weighting Using Analytical Hierarchy Process (AHP)**

The problems studied in this research explored from preliminary interviews with the management association and a batik entrepreneur in Purbalingga. In-depth interviews

conducted with unstructured, meaning researchers do not prepare in advance a list of questions will be asked in sequence. This type of interview is deemed appropriate researchers to explore perceptions about the barriers faced by batik entrepreneurs in general. Through this in-depth interview, researchers refine them into a few common types of barriers faced. Specifically, these constraints can be categorized into 5 factors, each of which has a sub-factor.

### **Marketing Factor**

In marketing factor there are four marketing sub factors. The first marketing sub factor is number of stamp batik very much. Now a lot of stamp batik in the market including in Purbalingga and surrounding areas. Stamp batik has the advantage that there is a very cheap and a very diverse in motives. Although the quality of printed batik is still less than quality of Purbalingga batik but existence of stamp batik is able to become substitutes for Purbalingga batik. Lower middle class market is taken by the stamp batik because Purbalingga batik need a long time process so the price of Purbalingga batik is much higher than the stamp batik.

The second factor is marketing sub factor is Purbalingga batik not having a special pattern. Although quality of Purbalingga batik has a good quality but do not yet have a distinctive pattern, such as Solo, Yogyakarta and Pekalongan batik. The patterns of Purbalingga batik are virtually the same as the pattern of Banyumas batik. Without a distinctive pattern is very difficult to sell Purbalingga batik. Any batik patterns generated by Purbalingga is *lumben*, *pringsedapure*, and *jahe rimpang*, is also owned by Banyumas batik. That is why, sometimes Purbalingga batik so often is regarded as Banyumas batik.

The third factor is marketing sub factor is Purbalingga batik limited media and promotion fee. The promotion media used by Purbalingga batik entrepreneur is

very limited. The limited media promotion that has led to Purbalingga batik has not yet known to many by the public. Brand image Purbalingga batik is still below the Solo, Yogyakarta and Pekalongan batik. The media campaign used by craftsmen Purbalingga batik was limited to follow exhibition in some places if there is an invitation.

The fourth factor is marketing sub factor is craftsmen Purbalingga batik not yet owned business network. Craftsmen Purbalingga batik not yet have a definite business network, a network of existing business far only through the local government and its incidental. Buyer Purbalingga batik come to Purbalingga to shop batik.

### **Human Resource Factor**

In human resource factor there are five human resource sub factors. The first human resource sub factors is Purbalingga batik weak managerial. Management Purbalingga batik was very simple, it is a home industry. Marketing rely on order, capital is very limited, the technology used is very simple, human resources in quantity and quality is very limited.

The second human resource sub factor is that Purbalingga batik does not have a good regeneration process. In general, classified Purbalingga batik craftsmen of old age, this show is not good regeneration system. Not many young people who are interested to pursue the craft of batik due to economic conditions in Purbalingga not encouraging. If batik craftsmen who have been there do not worry about regeneration in the next few years will be lost Purbalingga batik.

The third human resource sub factor is that Purbalingga batik lack of manpower. Limited manpower in terms of both quality and quantity cause Purbalingga batik industry unable to meet demand if there is enough demand. This causes the batik Purbalingga had difficulty in increasing its market share.



The fourth human resource sub factor is that Purbalingga batik low productivity. Productivity Purbalingga batik craftsmen also still an obstacle in the development of batik. The low productivity caused by the craftsmen in general, old age and many are making batik as a side job rather than as a business major. Purbalingga batik using natural dyes, so it takes a relatively long time to produce one sheet of batik

The fifth human resource sub factors is the emergence of labour-intensive industries in Purbalingga. Purbalingga known as industrial districts, this is because in Purbalingga many good plant stand wood processing plants, factories hair fake, fake eyelashes and ceramic factories. In general, opening factories in Purbalingga businesses employ more female workers than male workers, this turns out to cause the batik industry in Purbalingga having difficulty in obtaining employment.

### ***Operational Factor***

The first operational sub factor is the low innovation of entrepreneur in Purbalingga batik. Innovations in Purbalingga batik are very low both in technical and administrative innovations. The low technical innovation in the batik industry in Purbalingga visible from at least the motive which produced, simple equipment used to make batik, while the low administrative innovation seen from the administration and communications equipment that is used.

The second operational sub factor is the nature of simple technology adopted in the industry. The technology used for Purbalingga batik is still very simple, views of either tool technology production equipment and means of communication and technology ways of working. The Simple technology used can be understood because Purbalingga batik prefers the perseverance and skill batik. Several technologies have been used, among others, use of gas stoves, kerosene stove instead because kerosene is now difficult to obtain and expensive.

The third operational sub factor is the limited access to raw materials. Purbalingga batik has not had access to raw materials, so as to obtain the raw materials must pass through the Banyumas in Sokaraja or directly imported from the Pekalongan. This access to raw materials reduces the dependency of Purbalingga batik to batik craftsmen in Sokaraja.

The fourth operational sub factor is the keep increasing of raw material prices. This results in the increase in production costs. To offset rising raw material prices Purbalingga batik not be able to quickly raise the price of production and this is because the intensity of market competition is very high both among batik stamp and with a much cheaper price.

### ***Financial Factor***

In financial factor there are two financial sub factors. The first financial sub factor is the limited capital. Purbalingga batik business in general is a home industry with family members or relatives as workers with very limited use traditional capital. Lack of capital causes batik Purbalingga not able to increase its production capacity to increase its market share

The second financial sub factor is the difficulty in accessing to credit. Batik craftsmen Purbalingga feel that they have difficulty in access to credit. Some of the obstacles that cause Purbalingga batik craftsmen find it difficult to gain access to such loans is the inability to provide collateral, it has low administrative requirements as it lacks the financial statements in accordance with banking regulations, business licensing and other administrative provisions.

### ***The Business Environment Factor***

In business environment factor there are five business environment factor sub factors. The first Business environment sub factor is the keep increasing of fuel prices. The increase in the price of fuel oil/gas,

directly or indirectly affect the business Purbalingga batik. Indirect effect of rising fuel prices/gas is the raw material price increases as a result of price increases transportation cost, while the direct effect is the increase in production costs as a result of the increase in kerosene prices.

The second business environment sub factor is the absence of Batik Cooperation. The absence of batik cooperation in Purbalingga causes difficulties for local governments in conducting technical training. Besides, it also causes difficulties for the craftsmen in the exhibit and market their products. It is expected that this cooperation can also mediate between producers and banks in obtaining access to credit.

The third environment sub factor is the keep increasing in minimum wage. Increase in Minimum Wage (UMR) in Purbalingga driven by the presence of foreign industry that are in the area causing an increase in production costs batik. Given this increase resulted in increase in price of batik.

The fourth environment sub factor is the changes of market appetite. Changes in tastes will batik ever-changing market, this causes batik craftsmen must continue to constantly adjust to the tastes of the market. To adapt to market tastes the craftsmen have to collect market information and gather information on competitors. But the business of collecting market information and competitor information has not been much done by batik artisans Purbalingga.

The fifth environment sub factor is the availability of product substitution. Purbalingga batik replacement product on the market very much in the form of batik which is produced from other regions, as well as batik striated who now has begun to rage. To be able to compete with substitute products that are relatively more than Purbalingga batik must improve its quality with its own peculiarities (differentiation) compared with batik from other regions.

Based on the responses of respondents to the questionnaire, conducted

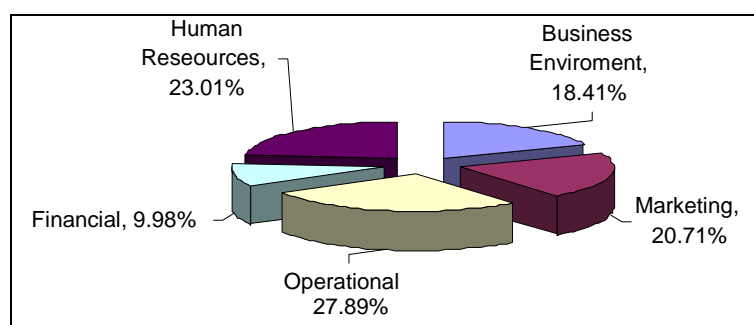
weighting using Analytical Hierarchy Process (AHP) to determine the weights of each of these barriers according to the perceptions of respondents.

### **Business Constraints Factor in Purbalingga Batik**

Factors evaluated as inhibitors of batik business in Purbalingga is the marketing factor, the factor of human resources, financial factors, operational factors and environmental factors of business. From the results of field surveys and interviews, respondents were perceived inhibiting factors in sequence starting from the most dominant inhibited until the least inhibit dominant.

Operational factors perceived as the most dominant factor in inhibiting the development of the batik in Purbalingga. 27.89 percent of respondents gave weight to the operational factors of all the existing disincentives. Sub factor that most inhibited in the operational factors are sub-factor simple technology with a weight of 37.01 percent. Sub other operational factors inhibiting the development of the batik business in Purbalingga is the low innovation by weight 28.32 percent, limited access to raw materials with a weight of 37.01 percent and rising prices of raw materials by weight 9.99 percent.

Factor of Human Resources (HR) ranks second perceived as factors that inhibit the development of the batik in Purbalingga. 23.01 percent of respondents gave weight to the human factor of all the existing disincentives. Sub factor that most inhibited in the human factor is the weakness of the managerial sub-factors with weight 32.08 per cent. Sub factor other human resource barriers to the development of the batik in Purbalingga is the low productivity of 22.83 percent by weight, limited manpower 17.54 percent by weight, not good regeneration by weight 14.01 percent and the emergence of labour-intensive industries with weight of 13.53 percent.



Source: Data calculation.

**Figure 1:** Business Constraints Factor in Purbalingga Batik

**Table 5:** Weight Factors and Sub factors Constraints in Enterprise Development in Purbalingga Batik

First Level		Final Weights	Second Level	
Constraints Factor	Weight (%)		Sub-Factor Constraint	Weight (%)
Marketing	0.2665	0.2071	Number of Stamp Batik	0.0552
	0.4054		Not Having a typical pattern	0.0840
	0.1454		Limited Media/Promotion Fee	0.0301
	0.1828		Not yet owned Business Network	0.0379
Human Resources (HR)	0.3208	0.2301	Weak Managerial	0.0738
	0.1401		No Best of Regeneration	0.0322
	0.1754		Lack of Manpower	0.0404
	0.2283		Low Productivity	0.0525
	0.1353		The emergence of Intensive Industries	0.0311
Financial	0.3907	0.0998	Capital Limited	0.1090
	0.6093		Difficult Access to Credit	0.1699
Operational	0.2832	0.2789	Low Innovation	0.0283
	0.3701		Simple Technology	0.0369
	0.2468		Limited Access to Raw Materials	0.0246
	0.0999		Raw Material Price Increase	0.0100
Business Environment	0.1435	0.1841	Increase Fuel/Gas	0.0264
	0.1657		The absence of Batik Cooperation	0.0305
	0.3125		Increase minimum wage	0.0575
	0.2251		Appetite Changes	0.0414
	0.1532		Substitute Products	0.0282
Total	5.0000	1. 0000		1. 0000

Source: Data estimation.

Factors perceived marketing ranks third as a factor that inhibits the development of the batik in Purbalingga. Respondents gave the weight of 20.71 percent for the marketing of all the factors inhibiting factors that exist. Sub factor most inhibiting factor in marketing is a sub factor has not been a typical pattern with a weight of 40.54 percent. Sub other marketing factors

inhibiting the development of the batik business in Purbalingga is the number of printed batik with the weight of 26.65 percent, has no business with the weight of 18.28 percent and the limited media or promotional costs by 14.54 per cent weight.

Issues examined in this study extracted from preliminary interviews with the man-agement association and a batik

entrepreneur in Purbalingga. Tipe interviews to explore perceptions about barriers batik entrepreneurs in general. Through in-depth interviews, researchers selected a few common types of barriers faced by batik craftsmen. Specifically, these constraints can be categorized into 5 factors, each of which has a sub-factors, see table 5.

### **Determination Analysis of Competitive Strategy Using SWOT and QSPM**

Based on the results of questionnaires and interviews with as many as 30 respondents then found that the result of data classification and pre-analysis can be divided into two, namely data relating to internal and external environment. Internal factors of business development Purbalingga batik include strengths and weakness.

Strengths of Purbalingga batik are:

(1) Batik entrepreneurs in Purbalingga have long-established experiences. the entrepreneurs in Purbalingga have a long experience. Of the 30 respondents, on average, have experience of making batik is more than 20 years. It also makes the experience of making batik produced more quality. (2) Public attitudes toward batik business. Open attitude towards the community and support local industry like batik making Purbalingga survived until now. Batik as an Indonesian native cultural heritage by UNESCO increasingly make people appreciate and are proud of batik. Batik is also still the official dress in events organized by the community. (3) The uniqueness of Purbalingga batik. Purbalingga batik is known to the public because of its uniqueness. The uniqueness of Purbalingga batik lies in colour. Batik Purbalingga use natural colours derived from the bark of trees and foliage that does not cause irritation to the skin and the colour becomes more awt compared with artificial colours.

The Weaknesses of Purbalingga batik are as follows. (a) The price of Purbalingga batik generally more expensive than other batik. This is because the batik and

uses natural materials so that the production process requires a relatively long time and require a high persistence. (b) The technology used in Purbalingga batik is very simple. (c) Limited of business network. Batik entrepreneurs in Purbalingga generally do not have a strong business network. Business network to promote batik is usually assisted by local governments incidentally through the exhibition. As for the problem of raw materials, local government has not intervened. Buyers usually buy batik on the manufacturer. (d) Productivity of Purbalingga batik is very low. The low productivity due to workers or the general batik craftsmen have been old age. Business batik used as a sideline and as a means of leisure. Besides batik Purbalingga still using simple technology and a natural dye so it took a relatively long time to produce one sheet of batik. (e) Limited of number of pattern. The number of patterns owned by very few craftsmen Purbalingga batik Usually found only motive lumben pringsedapure, jahe rimpang. The pattern itself also often found in business that is in Banyumas batik, Purbalingga batik therefore often referred to as Banyumas batik. (f) Not having access to raw materials. Raw materials used in batik are usually obtained from Sokaraja Purbalingga, Banyumas if you do not usually look directly at the Pekalongan. The raw material obtained is also relatively expensive. High prices of raw materials have also added the transportation cost to get raw materials.

Besides internal factors, external factors have also been identified in this study. External factors of business development in the district Purbalingga batik include opportunities and threats.

Opportunities of Purbalingga batik are: (1) A government program that requires the use of batik. Batik becomes the official uniform of some government agency district office. Local governments require the imposition of batik as uniforms used a specific day of the week working

day. Given this policy will automatically increase the demand batik. This is an opportunity for local batik entrepreneurs in Purbalingga to compete in the procurement of uniforms batik(2) The development of tourism in and around Purbalingga. The development of tourism in Purbalingga very rapidly. Number of visitor attractions into the market that needs to be worked by the entrepreneur in Purbalingga batik. Sightseeing growing punch in Purbalingga is Obyek Wisata Air Bojongsari (Owabong) and Obyek Wisata Pancuran Mas Purbayasa. (3) Attention of government on batik industrial. Government's attention towards SMEs in Purbalingga district very well. Local governments provide interest subsidies for SMEs. This can be exploited by batik entrepreneurs to increase working capital and invest in business development efforts batik Besides, government policy requires civil servants to wear batik on certain days is very helpful in marketing programs batik(4) The increasing interest of the community of batik. Since the enactment of batik as a cultural heritage by UNESCO's native Indonesia, batik is a trend back. The market share of batik has spread from older to younger generations. With the increased interest in the community and with better promotion, the local batik could return to compete in the market.

Threats of Purbalingga batik are: (1) High competition in the batik industry. The competition in batik industry causes small-scale batik industry become increasingly difficult to develop. Competition among the batik industry which is perceived by Purbalingga batik is Pekalongan batik, Solo batik, Yogyakarta batik, Banyumas batik which already has a stronger brand image than the Purbalingga batik. (2) The stamp batik with low price. The existence of stamp batik cheaper cause people tend to prefer to buy rather than stamp batik. Batik entrepreneurs in general are still engaged Purbalingga batik. Batik tended more expensive and the process takes a long time compared with stamp batik. (3) The low enthusiasm of young people in batik. Difficult to regenerate batik business became the biggest threat in the business development of batik. The number of labour-intensive industries that exist in Purbalingga cause teenagers Purbalingga prefer to work in factories rather than pursue batik business, because working in the factory does not require high skills and can obtain certain income each month.

Having determined the internal factors and external factors, the next stage is the stage of data collection. Based on interviews and questionnaires, it can be an internal evaluation matrix as in Table 6.

**Table 6:** Internal Factors Evaluation Matrix

Internal Strategic Factors	Weight	Rating	Score
<i>Strenghts</i>			
1 Long-established experiences in batik	0,06983	4	0.27931
2 Public attitudes toward batik business	0,05929	4	0.23715
3 The uniqueness of batik	0,06719	4	0.26877
<i>Weakness</i>			
1 Price of Purbalingga batik more expensive	0,06258	4	0.25033
2 Simple technology	0,05336	3	0.16008
3 Limited business network	0,07246	3	0.21739
4 Low productivity	0,06126	3	0.18379
5 Limited of number of patterns	0,06851	4	0.27404
6 Not having access to raw materials	0,07839	4	0.31357
Total			2.18445

Source: Data calculation.

**Table 7:** External Factor Evaluation Matrix

External Strategic Factors	Weight	Rating	Score
<b>Opportunities</b>			
1 A government program that requires the use of batik	0.06719	4	0.26877
2 The development of tourism in and around Purbalingga	0.05072	4	0.2029
3 Attention of government on batik industrial	0.05995	4	0.23979
4 The increasing interest of the community of batik	0.0639	4	0.2556
<b>Threats</b>			
1 Competition in the batik industry	0.05995	4	0.23979
2 The printed batik with low price	0.05929	3	0.17787
3 The enthusiasm of young people in batik	0.04611	3	0.13834
<b>Total</b>			

Source: Data calculation.

**Table 8:** Results of SWOT analysis

IFAS EFAS	<b>STRENGTHS (S)</b> - Experience in batik - Public attitudes toward batik business - The uniqueness of batik	<b>WEAKNESS (W)</b> - Price of Purbalingga batik - Technology - Business Network - Productivity - Number of motifs - Access to raw materials
<b>OPPORTUNITIES (O)</b> - A government program that requires the use of batik. - The development of tourism in and around Purbalingga. - Attention of government on batik industrial. - The increasing interest of the community of batik.	<b>SO STRATEGY</b> - Using experience in batik to create distinctive pre-eminent batik Purbalingga. - Create a new marketing methods such as exhibitions, boutiques, etc. so that people increasingly recognize the unique batik. - Trying to penetrate the market at the Ministry offices and schools. - Increase the uniqueness of the motive to increase the interest of society to batik.	<b>WO STRATEGY</b> - Using credit subsidies from local governments for investment and working capital loans batik entrepreneurs. - Increase cooperation with local governments to help promote batik and expand its business network. - Create a batik cooperatives to facilitate getting the raw materials and marketing. - Seeking access to the raw material for cutting raw material distribution channels. - Development of the workforce to increase productivity and production capacity.
<b>THREATS (T)</b> - Competition in the batik industry. - The printed batik with low price. - The enthusiasm of young people in batik.	<b>ST STRATEGY</b> - Create a pattern and motif that suit the tastes of the younger generation. - Improve quality batik. - Strengthen the batik market segmentation. - Conduct training for the younger generation of batik.	<b>WT STRATEGY</b> - Optimizing existing business network to maximize marketing. - Utilize existing technology to increase productivity. - Determining the price that competes with minimal loss in order to compete with the price printed batik. - Maintaining the uniqueness of natural colour in order to remain a market.

At this stage, the result obtained is the value of *IFE* (Internal Factors Evaluation) which is equal to 2.18445, indicating that the internal position of batik entrepreneurs in Purbalingga is good enough. Having determined the Internal Factor Evaluation Matrix, it is then determined External Factor Evaluation Matrix as Table 7.

The value of *EFE* (External Factors Evaluation) is 1.52306, indicating that the

employer has not been able to take an advantage from the opportunities to overcome the threats. After collecting the data, the next stage is the stage of analysis, which resulted in the following results (Table 8).

Based on the interviews with some batik craftsmen, it can be decided the strategy to develop Purbalingga batik. The strategy has been formulated in stages of a decision-making table as follows.

**Table 9:** The Decision Stage

Success Factors	Rating	ALTERNATIVE STRATEGIES							
		SO		WO		ST		WT	
		AS	TAS	AS	TAS	AS	TAS	AS	TAS
<i>Strengths</i>									
Experience in batik	4	4	16	2	8	3	12	4	16
Public attitudes toward batik business	4	4	16	2	8	3	12	3	12
The uniqueness of batik	4	4	16	2	8	3	12	3	12
<i>Weakness</i>									
Price of Purbalingga batik	4	2	8	2	8	2	8	2	8
Technology	3	2	6	2	6	2	6	2	6
Business Network	3	2	6	2	6	2	6	2	6
Productivity	3	2	6	2	6	2	6	2	6
Number of motifs	4	2	8	2	8	2	8	2	8
Access to raw materials	4	2	8	2	8	2	8	2	8
<i>Opportunities</i>									
A government program that requires the use of batik	4	4	16	3	12	2	8	2	8
The development of tourism in and around Purbalingga	4	3	12	3	12	2	8	2	8
Attention of government on batik industrial	4	4	16	4	16	2	8	2	8
The increasing interest of the community of batik	4	4	16	3	12	2	8	2	8
<i>Threats</i>									
Competition in the batik industry	4	2	8	1	4	3	12	2	8
The printed batik with low price	3	2	6	1	3	3	9	2	6
The enthusiasm of young people in batik	3	2	6	1	3	3	9	2	6
			170		128		140		134

Matrix QSP is based on the data analysis phase of data collection (the input stage) and stage of analysis (the matching stage). Using this matrix, the batik entrepreneurs to establish the relative attractiveness (relative attractiveness) of a strategy that varies based on the value of attractiveness in accordance with the results of the meeting management meeting.

Determining strategies to be taken is the owner of the batik business. Batik business owners can involve its staff or its workforce in decisions concerning strategy to be taken. Yet researchers in this study only asked business owners in the district Purbalingga batik. The owner is the person most responsible in all company activities.

Based on the calculation at this stage, the result of SO strategy is 170, WO strategy value is 128, the value of ST strategy is 140, and the value of WT strategy is 134. Thus, a suitable strategy for the development of batik in Purbalingga is SO strategies

Some activities to implement the SO strategy is as follows: (a) using experience in batik to create distinctive pre-eminent batik Purbalingga, (b) creating new marketing tools such as exhibitions, boutiques, so that society increasingly recognize the unique batik, (c) trying to penetrate the market at the Ministry offices and schools and (d) improving uniqueness motive to increase the interest of society to batik.

## REFERENCES

- Bruton, G., F. Lohke, and J. Lu (2004), "The Evolving Definition of What Comprises International Strategic Management Research," *Journal of International Management*, 10, 413-429.
- David, M.E., F.R. David, and F.R. David (2009), "The Quantitative Strategic Planning Matrix (QSPM) Applied To A Retail Computer Store," *The Coastal Business Journal*, 8(1), 42-52.
- Dess, G. and P.S. Davis (1984), "Porter's Generic Strategies as Determinants of Strategic Group Membership and Organizational Performance," *Academy of Management Journal*, 27, 467-488.

## CONCLUSION

The research found that operational factors, human resources, marketing, financial and business environment are constraint to Purbalingga Batik development. Operating factor is the constraint factor with the greatest weight, which means that operating factor is the biggest obstacle in developing Purbalingga batik business.

The analysis using QSPM method suggested that the appropriate strategy to develop Purbalingga batik is the Strength-Opportunity (SO) strategy which used force to seize opportunities.

To improve business performance Purbalingga batik, we should reduce operational constraints by organizing training batik techniques that will be able to increase product innovation. It is also necessary for businesses to access to raw materials. Another important thing to do is to conduct managerial training for the entrepreneurs, which will enable them to involve in a modern business.

In using forces to seize the opportunities, some possible strategies can be done, namely using experience in batik to create a typical pre-eminent batik Purbalingga, creating a new marketing vehicles such as exhibitions, and boutiques, so that people increasingly recognize the uniqueness of batik, trying to penetrate the market at the Ministry offices and schools, and improving uniqueness motive to increase the interest of society to batik.



- Hambrick, D.C. (1983), "An Empirical Typology of Mature Industrial Product Environments," *Academy of Management Journal*, 26, 213-230.
- Hambrick, D.C. (2004), "The Disintegration of Strategic Management: It's Time to Consolidate Our Gains," *Strategic Organization*, 2(1), 91-98.
- Hogan, K.M. and G. Olson (2004), "A Multi-criteria Decision Model for Portfolio Allocation for the Individual Investor," *Mathematical Programming: Applications of Management Science*, 11, 3-16.
- Hogan, K.M., G. Olson and G. Sillup (2006), "Identifying Compounds for Pharmaceutical Companies' Development Tracks Using a Multi-criteria Decision Model," *Applications of Management Science in Productivity, Finance, and Operations*, 12, 89-108.
- Hogan, K.M., G.T. Olson and G.P. Sillup (2009), "Helping the Self-insured Company to Select the Right Pharmacy Benefits Manager: An Analytical Hierarchy Process Method," *Research in Healthcare Financial Management*, 12(1), 59-75.
- Ishizaka, A. and M. Lusti (2004), "An Expert Module to Improve the Consistency of AHP Matrices," *International Transactions in Operational Research*, 11, 97-105.
- Lu, J.W. (2003), "The Evolving Contributions in International Strategic Management Research," *Journal of International Management*, 9, 193-213.
- Peng, M.W. and S.Q. Zhou (2006), "Most Cited Articles and Authors in Global Strategy Research," *Journal of International Management*, 12, 490-508.
- Porter, M.E. (1980), *Competitive Strategy*, Free Press, New York.
- Saaty, T.J. (1990), "How to Make a Decision: the Analytic Hierarchy Process," *European Journal of Operational Research*, 48, 9-26.
- Travana, M. (2004), "A Subjective Assessment of Alternative Mission Architectures for the Human Exploration of Mars at NASA Using Multicriteria Decision Making," *Computers & Operational Research*, 31, 11-47.