SWOT ANALYSIS OF BATIK SEMARANGAN COMPETITIVENESS IN THE DISRUPTION ERA

C. Tri Widiastuti*), Aprih Santoso*)1

*)Faculty of Economics, Universitas Semarang Jl. Soekarno Hatta, Tlogosari Kulon, Pedurungan, Semarang, Central Java 59160, Indonesia

> **Abstract:** The unique feature of batik semarangan lies in the concept of colour according to the characteristic of Semarang. This study aims to analyze the strengths, weaknesses, opportunities, and threats of the batik semarangan competitiveness in the era of disruption. A research method is a qualitative approach using primary data, namely data obtained directly from the object under study through procedures and data collection techniques in the form of observation and structured interviews. The data analysis technique used is SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats). The validity test of the data includes the credibility test (internal validity) and the triangulation of sources. The results showed that (1) the strengths are the quality of batik, a very strategic location and support from the government to improve its business, and good relations with suppliers; (2) the weaknesses are the production process with simple technology, the lack of marketing for batik products, as well as elderly human resources with common knowledge; (3) the opportunity is that marketing is still extensive and can be done online; (4) the threat is the lack of regeneration of batik craftsmen, batik printing at lower prices. Business actors should increase their skills and creativity, improve product quality, and develop online marketing to increase competitiveness. This study also revealed several managerial implications, which are 1) policymakers must be present and participate in decision making, 2) ease of access to information, promotion and collaboration with batik business actors in big cities, 3) training and assistance to increase innovation and creativity, and 4) encouraging improved branding of batik semarangan.

Keywords: disruption era, batik semarangan, competitiveness, SWOT

Abstrak: Ciri khusus batik semarangan terletak pada konsep warna sesuai dengan karakteristik kota Semarang. Penelitian ini bertujuan menganalisis kekuatan, kelemahan, peluang, dan ancaman daya saing batik semarangan di era disrupsi. Metode penelitian dengan pendekatan kualitatif, menggunakan data primer yaitu data yang diperoleh langsung dari objek yang diteliti melalui prosedur dan teknik pengambilan data yang berupa observasi dan wawancara terstruktur. Teknis analisis data yang digunakan adalah Analisis SWOT (Strength, Weakness, Oppotunities dan Threats). Uji validitas data meliputi uji kredibilitas (validitas internal) dan triangulasi sumber. Hasil penelitian menunjukkan bahwa (1) kekuatan adalah kualitas batik, letak yang sangat strategis dan dukungan dari pemerintah untuk meningkatkan usahanya, hubungan baik dengan pemasok; (2) kelemahan adalah proses produksi dengan teknologi sederhana, kurangnya pemasaran produk batik, serta sumber daya manusia berusia lanjut dengan pengetahuan yang rendah; (3) peluang adalah pemasaran masih sangat luas dan dapat dilakukan secara online; (4) Ancaman adalah kurangnya kaderisasi pengrajin batik, batik printing dengan harga lebih murah. Pelaku usaha harus meningkatkan keterampilan dan kreativitas, meningkatkan kualitas produk, serta mengembangkan pemasaran online untuk meningkatkan daya saing. Implikasi manajerial penelitian ini, pemangku kebijakan harus hadir dan ikut serta dalam pengambil keputusan, kemudahan akses informasi, promosi dan menjalin kerjasama dengan pelaku usaha batik yang ada kota-kota besar serta memberikan pelatihan serta pendampingan untuk meningkatkan inovasi dan kreatifitas, mendorong meningkatkan branding produk unggulan batik semarangan.

Kata kunci: era disrupsi, batik semarangan, daya saing, SWOT

Article history:

Received 21 June 2022

Revised 28 July 2022

Accepted 16 August 2022

Available online 30 September 2022

This is an open access article under the CC BY license (https://creativecommons.org/licenses/by/4.0/)





¹Corresponding author:

Email: aprihsantoso@usm.ac.id

INTRODUCTION

Indonesia has entered industry 4.0, marked by increased manufacturing digitization. Industry 4.0 introduces flexible mass production technology (Lu, 2017; Vaidya et al. 2018). Industry 4.0 is also called the era of technological disruption when an innovation enters the market, and it will have a disruption effect that is strong enough to change the previous market structure. In an era of disruption, competition is getting sharp. The need for human resources has also shifted because industrial needs continue to be dynamic, and the types of jobs available in the future are predicted to change (Alcacer and Cruz-Machado, 2019).

Technological advances in the era of disruption require change for new business patterns that are more effective so that business actors must be intelligent and capable of finding solutions to improve product quality and can make the era of disruption an advantage for business actors. The era of disruption affects not only large and advanced-scale industries but also medium and smallscale industries (Buchi, 2020; Yu, 2020; Kasali, 2017). One of the sectors in small and medium enterprises is the creative industry. The creative industry is creating work based on ideas, art, innovation, technology, and intellectual property initiated by someone to produce new works with high competitiveness (Ministry of Trade, 2008). The future of the creative industry is quite promising and can be a source for the economy. It is proven that the creative industry can contribute 7.44% to the entire Indonesian national economy and help reduce the unemployment rate in Indonesia. Strategic steps in developing the creative industry are carried out by facilitating or providing easy access to offline and online promotions. It is to introduce products that have superior quality, are innovative, and have a variety of attractive designs (Ministry of Cooperatives and SMEs, 2005; Munandar, 2016; Bustam, 2017).

To produce competitive products, creative industries must be developed to raise regional potential and community creativity (Boccella and Salerno, 2016). Competitiveness is the ability to use resources/production and produce goods/services with quality and competitive prices that are better than competitors. The competitiveness of a company can be measured by the economic performance achieved. For example, the use of resources by the company, human resources, raw materials, and other resources, government efficiency regarding the formulation of pro-company policies/

regulations, company business efficiency, namely producing goods and/or services at low cost, and infrastructure, namely the infrastructure used by the company (Porter, 1990; Chikan, 2018). An effort to increase competitiveness is a business improvement. Business actors must improve their business capabilities by increasing creativity and innovation and adopting new technology to increase the quality and quantity of production (Kuncoro & Gunawan, 2020). Besides, a competitive strategy is needed to maintain market share, increase company productivity and expand market access. The strategy is a comprehensive master plan which explains how the company will achieve all the goals that have been set based on the mission that has been previously set (Rangkuti, 2013).

In Semarang, the potential for the creative industry is increasing. One of the highlights is the batik semarangan industry, which has developed and is widely found in Semarang, especially in the Batik Village of Rejomulyo Village, East Semarang. The batik industry is a cultural heritage with regional characteristics, is known to the general public, and has the potential to be developed (Iskandar & Kustiyah, 2017). Batik semarangan is batik produced by Semarang residents with Semarang city motificons such as the Tamarind Tree, Tugu Muda, and Lawang Sewu, which are bright colours. Characteristics and unique batik motifs can be used as product advantages to seize the market. It can be developed to preserve and promote local culture, making it a choice for national batik (Hananto et al. 2018). Therefore, developing the potency of the creative industry can be an alternative in increasing contribution in the economic and business fields, improving the community's quality of life, ordering images, and communication tools, fostering innovation and creativity and enhancing the identity of an area.

The preliminary study in the Batik Village successfully identified various problems that batik business entities have to develop batik semarangan. These problems are related to the traditional batik production process, taking raw materials to support production activities with an adequate supply of raw materials to expedite the process (Siregar & Nizma, 2019). Limitations and a lack of regeneration of human resources. Regeneration is a process of improving the quality and development of human resources. Therefore regeneration must be carried out so that the operational continuity and growth of the company's performance can run simultaneously (Widiastuti et al. 2019). Batik business

actors lack mastery of technology, management information, and markets. With technology, business actors can expand the market, increase awareness, and increase sales (Santoso et al. 2017; Rahman et al. 2016). The government has a minimum number of batik entrepreneurs. They are accessing policies in the batik industry development program. Government policies are essential to help business actors improve competitiveness to grow on a larger scale (Alhusaeni, 2016; Rindrayani, 2017). Several previous studies have revealed that it increases competitiveness. Business actors must have innovation and improve product quality, carry out digital technology-based marketing, and get support from the government through policies that help develop MSME businesses (Švárová & Vrchota, 2014; Gupta et al. 2016; Panagiotis et al. 2015).

In the era of disruption, batik business actors must have the expertise to improve the quality of human resources and production, time and cost efficiency in the production process, and improve marketing technology. The research analyses the internal and external environment to see strengths, weaknesses, opportunities, and threats. They are mainly related to covering human resources, production, marketing, technology, and coaching. Environmental analysis is carried out to see strategies to produce a competitive and competitive product. Handayani et al. (2018) revealed many opportunities and threats in running a business. Therefore every business must be carried out efficiently and effectively to compete with domestic products. Based on the identification of the problems mentioned above, the research problem on testing the competitiveness of batik semarangan in the era of disruption can be formulated as follows: What are the strengths, weaknesses, opportunities, and threats of the competitiveness of batik semarangan in the era of disruption?

METHODS

The research approach is to investigate the competitiveness of Semarang batik in the disruption era using a qualitative approach. This research method was chosen because it follows the formulation of the problem to be answered. In addition, the research data obtained was complete, valid, reliable, and objective. This research uses primary data, namely data obtained directly from the object under study through procedures

and data collection techniques in the form of observation and structured interviews. The data was observed from in-depth interviews with key informants (Sugiono, 2010). At the same time, the research instrument is the researcher himself. The research was conducted in the batik village of Rejomulyo Village Semarang from September 2019 until March 2020. Research informants are policymakers (Rejomulyo village head, the chairman of the batik association and Semarang City Cooperative and SMEs Office) and businessmen of batik semarangan. Batik buyers consist of 3 young generations, four housewives and five from government and private institutions, and three competitors. The data analysis technique uses SWOT with a qualitative approach consisting of Strengths, Opportunities, and Threats. SWOT analysis aims to maximize strengths and opportunities but can minimize weaknesses and threats. Data collection techniques in this study were through observation, interviews, and documents, with the stages of grouping data to be processed, conducting a SWOT analysis, entering data into the SWOT matrix, analyzing strategies, and recommending strategies to typical batik semarangan entrepreneurs. SWOT analysis uses the Internal Factor Evaluation (IFE) matrix and the External Factor Evaluation (EFE) matrix. IFE includes strengths and weaknesses, and EFE includes opportunities and challenges (Rangkuti, 2013).

RESULTS

The results of this qualitative research were obtained through in-depth interview techniques with informants as a form of direct data search and documentation in the field. Interviews were conducted to explore more deeply the factors related to the development of Batik semarangan's business and internal-external environment to obtain a strategy right to increase the competitiveness of Batik semarangan. Batik semarangan is produced in Semarang Batik Village experiences ups and downs. Kampung Batik Semarang has its heyday experienced as a batik producer during the Dutch colonial period. However, during the Japanese occupation in 1942, Kampung Batik Semarang experienced a great fire that destroyed Kampung Batik Semarang. Since this incident, Semarang Batik Village has drowned and no longer exists (Prayitno, 2019). In 2006, the Semarang city government started Semarang Batik Village again. Collaboration between the Regional Office of the Regional Government and the Department of Manpower of Semarang City by providing batik training and socialization of batik semarangan to Batik semarangan entrepreneurs. To increase the competitiveness of Semarang Batik business in the era of disruption, several factors from the internal and external environment are essential, which are discussed follow.

Human Resources

As a result of indigenous Indonesian culture, batik needs to be continuously developed, for it requires agility skills and a willingness to carry out business transformation in facing these challenges. Human resources with learning agility will be ready to adapt to difficult situations and changes to maintain competence and face current challenges. For this reason, in the era of disruption, human resources can create new ideas for their products and updates that aim to provide more value to a product with new ideas that are different from other products needed (Hidayat, 2018). Indriati (2015) believes that human resources are a key to business success. Therefore, human resources who are proud of this era of disruption are those who have the will and speed to learn and mastering new skills (Cakti, 2020). Development of the competitiveness of the Batik semarangan industry which is competitive must be based on the development of skilled, trained, and empowered human resources (Nugroho et al. 2016).

Production

The era of disruption is the technological revolution, where all physical and old technologies are replaced by digital technologies that make more efficient production. Batik business actors face obstacles in the long and complicated process of making batik, and the equipment used is still limited in terms of technology and capabilities. Regarding technology, batik stamp production equipment still relies on human labour in the tasting process. Therefore, since 2006, batik business actors have received training and guidance from local government to improve skills, creativity, and innovation to increase competitiveness and consumer purchasing power. With the increase in purchasing power, the productivity of Batik semarangan will also increase.

To support the production process, good production equipment is needed so that Batik semarangan production has good quality and high competitiveness. It is necessary to develop digital skills and try to implement new technology prototypes (Aribowo, 2018). In collaboration with the Center of Handicrafts and Batik, a Programmable Logic Controller based on the Automatic Batik Stamp tool was created (Wibowo, 2019). This tool uses an automatic method of making a batik cap with the canting cap function, and the cloth is moved alternately using a pneumatic control-based Programmable Logic Controller. Utilizing the automation-based technology of imprinted batik tools is expected to increase capacity and production efficiency and improve the quality of printed batik.

Marketing

Each product produced by the company will be distributed to consumers. The process of distributing goods is often referred to as marketing. Marketing is a process of identifying and meeting people and their needs through creative function, process management, communication, and delivery of value from these products to consumers, so it produces mutually beneficial relationships (Kotler, 2009).

In the era of disruption, many companies have changed their business processes so that the products they sell can be easily absorbed in the market. One of the changes many companies make is the means or media for marketing the product. The company seeks to bring the product quickly to consumers by using the internet as a medium for the market and selling their products. Several factors influence consumers' online transactions, including clarity of information, product superiority, service excellence, and discount. The online marketing strategy positively impacts the company because it can build communication about product values to consumers (Moy et al. 2020; Suripto, 2018).

Digitalization has enabled greater information accessibility and created new opportunities for communication. It has given rise to the digitalization paradigm, which makes information technology important for increasing competitiveness and customer satisfaction (Legner et al. 2017). Therefore, one strategy to increase competitiveness is developing online marketing. The factors that support the development of online marketing include the products that must be economically delivered. It must be unique and attractive, so customers are attracted to visit the website economically.

Technology

In the era of disruption, conventional work began to disappear and was replaced by machines or internet-based technology. A type of batik-patterned printing is available, namely batik-patterned textiles produced through the screen-printing process. This production system produces mass-printed batik textiles in a short time and can be sold cheaper than printed batik, moreover hand-written batik. If batik-patterned printing dominates the batik industry, then this is not in line with the philosophy of batik as a technique and process in which there are motifs or patterns with artistic values that are produced and have economic value (Nawawi, 2018). There are concerns that this change will erode culture and eliminate national identity.

In Indonesia, most batik industries still use traditional and makeshift technology. Batik's work will not be easily replaced by robots or technological advances, thus making batik production less competitive. Along with the development of the batik industry, the opportunities and potentials are pretty significant in the era of disruption because it has a large market. Creativity and innovation are needed to adjust consumer demand, characteristics, and market targets, including preserving batik as national identity (Rahmawati et al. 2015). Therefore, it requires extreme and fast attention from the government, entrepreneurs, and access to domestic and foreign markets. The government must provide training to improve skills related to Batik semarangan.

Coaching

The era of disruption makes competition between companies more competitive. SMEs must adapt to any changes that occur and must be technology literate, so it is easier to adopt technology both for innovation, improving product quality, and design to win marketing. Government support is needed to improve the quality of human resources. Quality improvement can be made through coaching and development to improve human resources skills. Coaching and development in the era of disruption include entrepreneurship training, capital assistance, promotion or marketing assistance, design development, and production technology. Besides that, seminars and motivational events were also held by presenting creative industry entrepreneurs who have been successful in their fields (Abbas, 2019). The disruption era is an opportunity and a challenge

for modern human resources. The opportunity is to improve human resources' readiness to work efficiently, effectively, and competitively. Meanwhile, technology-based human resource management challenges require high costs and human resources who can use modern technology products (Muliawati, 2019).

Of the several factors that affect the competitiveness of batik businesses, several strengths, weaknesses, opportunities, and threats arise from batik entrepreneurs' internal and external environment (Glueck, 1994). Strengths, weaknesses, opportunities, and threats are analyzed based on the scores obtained. The calculation of the scores is contained in Table 1. The analysis results of the dominant internal environment are the quality of batik with a score of 0,52. Typical Semarang batik has good quality. A strategy that business actors must take to improve the quality of batik is increasing the competence of human resources by providing training. The goal is to become superior human resources with knowledge, skills, creativity, and innovation. Besides, it is also to preserve one of the nation's cultures because batik is a superior product that the world has recognized. The location gets a score of 0.56. A location is a place that includes company activities that make products available to target customers (Kotler, 2010). Kampung batik Semarang is located in the area of the old town of Semarang, which is a strategic location and easily accessible to consumers. The strategy pursued by business actors so that consumers are interested in buying Batik semarangan is increasing design innovation quality and giving discounts.

Good relations with suppliers get a score of 0.30. Suppliers have a vital function in every stage of the circulation of goods and services cycle. The role of suppliers is to provide a source of raw materials to help increase production and to find better options for raw materials when the market is saturated. Business actors must maintain good relationships and work closely with suppliers to get the best raw materials for their products. The score for support from the government is 0.33. The government support for developing SMEs is the UU 9 Th 1995 concerning Small Business. This regulation considers small businesses as people's economic activities with a strategic position, potential, and role in realizing the structure of the national economy. Some support from the government is coaching, training, and mentoring of human resources to increase knowledge and skills.

Table 1. Matrix EFE and IFE

Internal factors				
	Total	Rating	Weight (%)	Weight x Rating
A. Strength				
Product Quality	30	4	0.13	0.52
Location	33	4	0.14	0.56
Good Relationship with Supplier	24	3	0.10	0.30
Government Support	26	3	0.11	0.33
Amount A	113		0.49	1.71
B.Weakness				
Traditional Production	34	1	0.15	0.15
Less Marketing	25	2	0.11	0.22
Low Human Resources	27	1	0.12	0.12
Less Technology	30	2	0.13	0.26
Amount B	116		0.51	0.75
Amount A+B	229		1.00	2.46
External Factors	Total	Rating	Weight (%)	Weight x Rating
A. Opportunity				
Employment	26	4	0.10	0.40
Online Marketing	27	3	0.11	0.33
Training	33	4	0.12	0.48
Wide Market Share	30	4	0.12	0.48
Amount A	116		0.45	1.69
B. Threats				
Innovation of Disruption	36	1	0.14	0.14
Digital Society	33	2	0.13	0.26
Social and Economic Factors	35	1	0.14	0.14
Globalization's Access to Generation	36	1	0.14	0.14
Amount B	140		0.55	0,68
Amount A dan B	256		1.00	2.37

While the results of the dominant internal environment analyses are traditional production got a score of 0.15. The weakness of the traditional production process is that it is less effective and efficient because the production process is long and the costs incurred are high. Strategies for the traditional production of batik semarangan are creativity and innovation, especially in batik equipment such as canting. With equipment and means for batik innovation, the production process is expected to be completed effectively with optimal quality (Idris et al. 2020; Hermawati et al. 2017). With low marketing with 0.22, batik entrepreneurs have used traditional marketing methods less effective. The strategy that must be carried out is to increase the ability of human resources to be faster and more responsive in keeping up with developments in information technology to market their products. A creative marketing strategy can satisfy customers and improve marketing performance (Utaminingsih, 2016). Low human resources, the score obtained is 0.12. Employees are generally elderly, only working part-time, and do not understand technological developments. Human resources should be encouraged to continue to learn and improve their knowledge of technology. The ability of workers to apply and control technology can help improve business.

Therefore, business actors can embrace the younger generation into the batik business, so entrepreneurs must provide motivation and opportunities for the younger generation to run a business. Inadequate technology, getting a score of 0.26, in the era of disruption, business actors do not take advantage of technological developments, both information technology and production technology. Technology disruption can be a breakthrough for creative business actors to develop even more significant businesses

and establish strategic target consumers in favour of market performance (Wijayanti, 2022; Pratama, 2020). The strategy is to train human resources to have good knowledge of technological developments.

Theanalysis results of the dominant external environment as an opportunity include: (a) the employment score reached 0.40. Kampung batik Semarang is located in the old city and is very strategic, so it requires much energy both for products and promoting batik; (b) online marketing earned a score of 0.33. The disruption of advances in information technology is developing rapidly. Batik business actors must conduct education and training so that human resources understand that the use of information technology aims to market and develop batik semarangan in the era of disruption; (c) the training score got a value of 0.48. In the era of disruption, the government has focused on improving the quality of human resources through vocational education and training as well as providing certification, which is expected to increase competitiveness, efficiency, and productivity in the batik industry sector; (d) broader Market Share earned a score of 0,48. The market share of batik is still extensive. Information technology can be used or participate in exhibitions to spread batik semarangan.

The dominant external environment analysis results as a threat include (a) the employment score reaching 0.14. Kampung batik Semarang is strategically located in the old city, so it requires much energy for products and batik promotion strategies to build connections and infrastructure and keep abreast of the times; (b) the price of batik printing is lower, getting a score of 0.26. One of the parties in the batik company is that business actors cannot suppress batik semarangan costs. Business actors must pay attention to changing trends in their efforts to adapt and anticipate so that the Effect of disruption can be reduced. Batik business actors take advantage of technological developments to monitor production costs (Ambodo et al. 2022); (c) the score for the substitute product is 0.14. There are several kinds of substitute products for batik. For example, printed batik, patterned fabrics, and striated and woven fabrics. They became a threat to batik semarangan products because of their lower price and good quality; (d) Less human resources regeneration gets a score of 0.14. The batik industry is less attractive to the younger generation. Business actors must provide motivation and share experiences with the younger generation so that many young people get interested in the batik business. These strategies can be described in a SWOT matrix shown in Table 2.

Table 2. SWOT Matrix

	Strength (S)	Weakness (W)	
	 Product Quality Strategic Location Good Relations between Business Actors and Suppliers Support from the Government 	 Traditional Production Process Less Marketing Low Human Resources Less Technology 	
Opportunity (O)	S-O strategy	W-O strategy	
 Opening up Employment Opportunities Online Marketing Job Training The Market Share that is Still Open 	Competencies (S1, S3, O2, O3, O4) 2. Maintain a Marketing Network (S2, O2, O4)	 Promoting Effectively and Efficiently (W2, O1, O2) Improve HR Performance (W1, W2, W3, O1, O3) 	
Threats (T)	S-T strategy	W-T strategy	
 The Price of Printed Batik is Cheaper The High Competitiveness of Batik Lack of Regeneration Many replacement Products 	Changing Production Equipment with	 Perform Efficiency and Maintain Selling Prices (T1, T2, W1, W2) Provide Training and Improve HR Performance (T2, T3, W1, W2, W3) 	

Table 1 shows that the score for the strength factor is 1.71, and the score for the weakness factor is 0.75, so the total score is 2.46. While the opportunity factor has a score of 1.69 and threats, the score is 0.68, and the total score is 2.37. So it can be concluded that the strength value is below the Weakness difference (+) 0.96, and the opportunity and threats value is (+) 1.01. The results of identifying these factors can be described in a SWOT analysis diagram, as shown in Figure 1. The focused purpose of formulating strategies is to improve competitiveness in quadrant I at the point (x=0.96; y=1.01). The SWOT analysis results show that the company's condition is quadrant 1. Namely, the company is in a strong and opportunity condition. The recommended strategy is progressive, meaning that the company is in good condition so that it has the opportunity to expand continually, increase growth and obtain maximum progress. Some strategies pursued include improving skills, creativity, product innovation, and product diversification to produce highly competitive batik. In addition, conducting technology-based marketing to introduce products to new geographic areas, build partners with stakeholders and universities, implement efficiency, maintain selling prices, provide training, and improve human resources performance.

Managerial Implications

This research has implications for managerial decision makers to increase the competitiveness of Semarang batik. Policymakers must be present and participate in decision-making so that the Semarang batik business can develop and be increasingly recognized by the wider community. Based on the analysis results, to increase the competitiveness of Semarang batik, managerial implications include easy access to get information because the information is the key to the success of business actors. Through information, business actors can make careful plans for the businesses they run, promote and collaborate with batik businesses in big cities. Policymakers were also present in providing training and assistance to increase the innovation and creativity of business actors, encouraging the improvement of branding for superior products of Semarang batik.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

To conclude, this research found factors related to the competitiveness of batik semarangan based on SWOT analysis. Those factors are as follows: First, the strength of Semarang batik, especially in the quality of batik. However, the workmanship is still traditional but can produce quality batik cloth. Besides that, the Semarang batik village has a very strategic location and has received support from the government to increase its business. Good relations with suppliers are also a strength for business actors. Second, the weakness of batik semarangan is the traditional production process, lack of marketing, and less educated human resources. Third, opportunities for batik semarangan are extensive and use online marketing. It is necessary to support human resources to have a broader perspective. Last, batik semarangan threats are the lack of a successor, low price, many batik products, and high competitiveness.

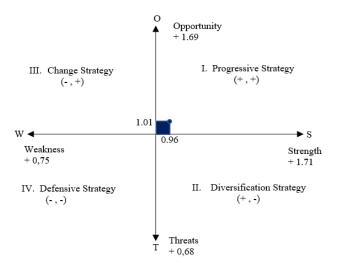


Figure 1. SWOT Chart

Recommendations

Recommendations given to business actors who are members of the Batik Association are strengthening their skills and creativity, such as training, diversifying batik products, developing innovations for batik semarangan motifs, maintaining and improving product quality to maintain market existence and trust, and developing online marketing. Actively invites young people to like batik through social media, wearing school uniforms with semarangan motifs, and creating batik semarangan fashion shows so that they want to jump in and develop batik semarangan. Recommendations for governments are to make various policies and support Semarang batik business actors to develop further such as making exhibitions to increase competitiveness.

ACKNOWLEDGMENT

Thanks to Universitas Semarang for the research facility and Kampung Batik Semarang of Rejomulyo Village Semarang, who have cooperated in taking research data.

FUNDING STATEMENT: This research did not receive any specific grant from funding agencies in the public, commercial, or not - for - profit sectors.

CONFLICTS OF INTEREST: The authors declare no conflict of interest.

REFERENCES

- Abbas WAF. 2019. Strategi pengembangan SDM dalam persaingan bisnis industri kreatif di era digital. 'Adliya 13(1):115-126.https://doi. org/10.15575/adliya.v13i1.4461.
- Alcácer V, Cruz-Machado V. 2019. Scanning the industry 4.0: A literature review on technologies for manufacturing systems. *Engineering Science and Technology, An International Journal* 22(3):899-919. https://doi.org/10.1016/j.jestch.2019.01.006.
- Alhusain AS. 2016. Kendala dan upaya pengembangan industri batik di Surakarta menuju standardisasi. *Jurnal Ekonomi & Kebijakan Publik* 6(2):199–213.https://doi.org/10.22212/jekp. v6i2.348.
- Ambodo P.K, Hermawan A, Kirbrandoko, Rahmana A. 2022. Strategi bisnis perusahaan perdagangan

- di Indonesia: Studi kasus pada PT Robotaqua Indonesia. *JurnalAplikasi Manajemen dan Bisnis* 8(2):643-653.https://dx.doi.org/10.17358/jabm.8.2.643.
- Aribowo H, Wirapraja. 2018. Strategi inovasi dalam rangka menjaga keberlanjutan bisnis dalam menghadapi era Volatility, Uncertainty, Complexity, dan Ambiguity (VUCA). *Jurnal Ilmu Manajemen dan Akuntansi Terapan (JIMAT)* 9(1):51-58. https://jurnal.stietotalwin.ac.id/index.php/jimat/article/view/153.
- Boccella N, Salerno I. 2016. Creative economy, cultural industries, and local development. *Procedia Social and Behavioral Sciences* 223:291 296. https://doi.org/10.1016/j. sbspro.2016.05.370.
- Büchi G, Cugno M, Castagnoli R. 2020. Smart factory performance and industry 4.0. *Technological Forecasting and Social Change* 150.119790:1-10. https://doi.org/10.1016/j.techfore.2019.119790.
- Bustam NH. 2017. Pengaruh jumlah unit, pdb dan investasi UMKM terhadap penyerapan tenaga kerja di Indonesia. Jurnal Penelitian Sosial Keagamaan 19(2):250-261. http://ejournal.uinsuska.ac.id/index.php/Kutubkhanah/article/viewFile/2555/1618.
- Chikan A. 2018. National and firm competitiveness: A general research model. *Competitiveness Review* 18(1):20–28. https://doi.org/10.1108/10595420810874583
- Cakti A. 2020. Pakar SDM: "Learning agility" penting bagi pekerja di era digital. https://www.antaranews.com/berita/1576378/pakar-sdm-learning-agility-penting-bagi-pekerja-di-era-digital. [23 Agustus 2020].
- David, Fred R. 2011. *Strategic Management*. Ed. ke-12. Jakarta.
- Departemen Perdagangan. 2010. Rencana Pengembangan Ekonomi Kreatif 2025. Jakarta: Departemen Perdagangan Republik Indonesia.
- Glueck, William F, Jauch, Lawrence R. 1994. *Manajemen Strategis dan Kebijakan Perusahaan.* Jakarta: Erlangga.
- Gupta S, Malholtra NK, Czinkota M, Foroudi P. 2016. Marketing innovation: A consequence of competitiveness. *Journal of Business Research* 69(12):5671-5681.https://dx.doi.org/10.1016/j.jbusres.2016.02.042.
- Hananto BA, Syarief A, Bugroho A. 2018.

 Pengembangan motif batik semarangan menggunakan tipografi sebagai gagasan visual.

 Jurnal Seni & Reka Rancang1(1):1-18. https://

- dx.doi.org/10.25105/jsrr.v1i1.3874.
- Handayani S, Hanila S,Nengsih M.k. 2018. Analisis strategi pemasaran kain batik besurek di kota Bengkulu. *EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi dan Bisnis* 6(2):156-167. https://dx.doi.org/10.37676/ekombis.v6i2.609.
- Hermawati A, Isma YE, Mas N. 2017. Strategi bersaing: Batik malangan konvensional melalui diversifikasi produk batik kombinasi pada UKM kelurahan Merjosari Malang. *Jibeka* 11(1):11-23.
- Idris, Adi KR, Wiradimadja A. 2022. Explorative study of m-commerce as a small business innovation strategy. *Indonesian Journal of Business and Entrepreneurship* 6(2):136-145. https://dx.doi.org/10.17358/IJBE.6.2.136.
- Iskandar, Kustiyah. E. 2017. Batik sebagai identitas kultural bangsa Indonesia di era globalisas. *GEMA* 30(52):2456-2472.
- Kasali, Rhenald. 2017. *Disruption*. Jakarta: PT. Gramedia Pustaka.
- Kotler, Keller. 2009. *Marketing Management*. London: Person Prentice Hall.
- Legner C, Eymann T, Hess T, Matt C, Böhmann T, Drews P, Mädche A, Urbach N, Ahlemann F. 2017. Digitalization: opportunity and challenge for the business and information systems engineeringcommunity. *Business& Information Systems Engineering: The International Journal of wirtschaftsinformatik, Springer; Gesellschaft für Informatik e.V.* (GI) 59(4):301-308. https://doi.org/10.1007/s12599-017-0484-2.
- Lu Y. 2017. Industry 4.0: A survey on technologies, applications, and open research issues. *Journal of Industrial Information Integration* 6:1-10. https://doi.org/10.1016/j.jii.2017.04.005.
- Muliawaty L. 2019. Peluang dan tantangan sumber daya manusia di era disrupsi. *Kebijakan: Jurnal Ilmu Administrasi* 10(1):1-9. https://dx.doi.org/10.23969/kebijakan.v10i1.1416.
- Munandar A. 2016. Strategi pengembangan dan keunggulan bersaing lembaga bisnis UMKM terhadap dembangunan Daerah. *Jurnal AdBispreneur* 1(2):103-112. https://doi.org/10.24198/adbispreneur.v1i2.
- Moy MM, Cahyadi ER, Anggraeni E. 2020. The impact of social media on knowledge creation, innovation, and performance in small and medium enterpraises. *Indonesian Journal of Business and Entrepreneurship* 6(1):23-31. https://dx.doi.org/10.17358/IJBE.6.1.23.

- Nawawi E. 2018. Jangan sebut itu "batik printing" karena batik bukan printing. *Melayu Arts and Performance Journal* 1(1):25–36.
- Nugroho T, Najib M, Kirbrandoko. 2018. Penentuan daya saing berbasis analisis kompetensi inti (Studi kasus pada ekowisata bakau di Jawa Timur). *Matrik: Jurnal Manajemen, Strategi Bisnis dan Kewirausahaan* 12(1):25-32. https://doi.org/10.24843/MATRIK:JMBK.2018.v12.i01.p03.
- Porter ME. 1990. The Competitive Advantage of Nations. New York: Free Press.
- Panagiotis EP, Kostis PC, Valsamis DG. 2015. Innovation and competitiveness: Culture as a long-term strategic instrument during the European Great Recession. *Journal of Business Research* 68(7):1436-1438. https://dx.doi.org/10.1016/j.jbusres.2015.01.029.
- Pratama MRI. 2020. The impact of double mediation on market performance using information communication technology and market orientation. *Jurnal Manajemen dan Pemasaran Jasa* 13(1):95-110. DOI: http://dx.doi.org/10.25105/jmpj.v13i1.5626.
- Prayitno. 2019. Jalan panjang kebangkitan batik Semarang. https://www.liputan6.com/regional/read/4076514/jalan-panjang-kebangkitan-batik-semarang [20 Agustus 2020].
- Rahmawati S, Lalu ES, Sarah RH, Murni S. 2015. Pengembangan Kewirausahaan Usaha Kecil Menengah Batu Permata. Surakarta: UNS Press.
- Rangkuti F. 2013. Teknik Membedah Kasus Bisnis Analisis SWOT Cara Perhitungan Bobot, Rating, dan OCAI. Jakarta: PT. Gramedia Pustaka Utama.
- Rindrayani SR. 2017. Strategi industri kreatif pada Usaha Mikro, Kecil, Dan Menengah (UMKM) dalam rangka menjawab tantangan Masyarakat Ekonomi Asean (MEA). *Proseding Ekonomi* 25:69-78. https://dx.doi.org/10.31219/osf. io/83kd7.
- Sugiono. 2017. *Metode Penelitian Kuantitatif, Kualitatif dan R&D.* Bandung: Alfabeta CV.
- Suripto. 2018. Kajian literatur efektifitas pemasaran produk dengan menggunakan sistim online marketing di era disruption. *Jurnal Ekonomi Syariah Indonesia* 7(2):120-128. https://ejournal.almaata.ac.id/index.php/JESI/article/view/859.
- Švárová M, Vrchota J. 2014. Influence of competitive advantage on formulation business strategy.

- Procedia Economics and Finance 12: 687-694 https://doi.org/10.1016/S2212-5671(14)00394-3
- Utamingsih A. 2016. Pengaruh orientasi pasar, inovasi dan kreatifitas strategi pemasaran terhadap kinerja pemasaran pada UKM kerajinan rotan di desa Teluk Wetan, Welahan, Jepara. *Media Ekonomi dan Manajemen* 31(2):77-87. http://dx.doi.org/10.24856/mem.v31i2.411.
- Wibowo I. 2019. Pemanfaatan teknologi bantu kinerja produksi batik. https://www.medcom.id/ekonomi/mikro/zNP49RWN-pemanfaatan-teknologi-bantu-kinerja-produksi-batik [23 Agustus 2020].
- Wijayanti RT, Najib M, Aminah M. 2022. The Effect of entrepreneurial marketing perceptions on MSMEs business performance during covid-19 pandemic in Bogor city. *Indonesian Journal of Business and Entrepreneurship* 8(1):24-37. https://dx.doi.org/10.17358/ijbe.8.1.24.
- Widiastuti CT, Widyaswati R, Meiriyanti R. 2019. Strategi peningkatan sumber daya manusia kreatif dan inovatif pada UKM batik emarangan (Studi di kampung batik Semarang). *Jurnal Riptek* 13(2):124-130.
- Vaidya S, Ambad P, Bhosle S et al. 2018. Industry 4.0 A Glimpse. *Procedia Manufacturing* 20:233-238. https://doi.org/10.1016/j.promfg.2018.02.034