




## The influence of knowledge and entrepreneurial orientation on product innovation and financial performance Batik Msme's

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ARTICLE INFO	ABSTRACT
<p><i>Article history:</i></p> <p>Received Jan 15, 2024 Revised Jan 17, 2024 Accepted Jan 25, 2024</p> <hr/> <p><i>Keywords:</i></p> <p>Batik; Entrepreneurial Orientation; Financial Performance; Innovation Product; Knowledge.</p>	<p>Company performance is a measure of a company's success in carrying out business activities. Company performance is the final result of all activities within a company. If the company's performance is poor, it is indirectly very difficult for the company to maintain its existence. Internal factors that influence company performance are company knowledge, entrepreneurial orientation, product innovation and competitive advantage. GoalThe purpose of this research is to analyze the influence of knowledge and entrepreneurial orientation on product innovation, and the role of innovation in mediating the indirect influence of knowledge and entrepreneurial orientation on financial performance. The research location is batik MSME's in Banyuwangi Bondowoso Regency, and Jember, East Java Province, Indonesia. The number of respondents was 43 units. Analyze data using analysis <i>Generalized Structured Component Analysis</i> (GSCA). The research results show variablesKnowledge and entrepreneurial orientation have a significant positive effect on innovation and financial performance. This indicates that the better the knowledge and entrepreneurial orientation (innovative, proactive, aggressively competitive, brave to take risks, and independent) of batik creative economy business owners, the better the product innovation and financial performance will be.</p> <p><i>This is an open access article under the <a href="https://creativecommons.org/licenses/by-nc/4.0/">CC BY-NC</a> license.</i></p> 

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### 1. INTRODUCTION

Company performance is a measure of a company's success in carrying out business activities. Company performance is the final result of all activities within a company. If the company's performance is poor, it is indirectly very difficult for the company to maintain its existence (Vasconcelos & Oliveria, 2018), (Jung et al., 2022), (Setyawati & Rosiana, 2015).

A number of theories explain the many factors that influence company performance, but in general they can be grouped into internal and external company factors (Barney, J.B. & Clark, 2007). Internal factors that influence company performance are company knowledge, company entrepreneurial orientation, entrepreneurial orientation, product innovation and competitive advantage, while

external factors are market attractiveness and competition. This research focuses on internal company factors (J. B. Barney & Hesterly, 2015), (Barney, J.B. & Clark, 2007).

The internal factors focused on in this research are based on knowledge-based resource based view (RBV) thinking and assume that company performance can be built through managing and optimizing the appropriate placement of knowledge and entrepreneurial orientation. With the right placement of knowledge and entrepreneurial orientation, the potential for creating a company's strategy and competitive advantage is very large and indirectly has a positive impact on the company. Theoretically, it is stated that in developing a company strategy it is not enough to analyze the company's internal environment but also requires an analysis of the company's external environment (Hitt, Michael A., Ireland R. Duane, Hoskisson, 2001).

In theory, it has been explained that performance is influenced by the knowledge and resources owned by the company. However, the interesting thing about research in the batik industry is that knowledge and resource factors must be jointly honed and developed so that it takes a long time to get results

The development of batik SMEs in Indonesia gained good momentum when it received recognition from the world organization United Nations Educational, Scientific and Cultural Organization (UNESCO) on October 2 2009 as an intangible world heritage of the Indonesian nation. The recognition given by UNESCO has strategic value to promote Indonesian batik to the world and can preserve the existence of batik craftsmen from extinction.

Development of batik MSMEs from 2015 to 2019 starting from the number of businesses, workforce, production, exports and raw materials. The number of batik businesses in Indonesia increases every year, 41,623 units in 2015 and 47,755 units in 2019, an increase of 14.7% over the five year period. The increase in the number of batik business units in Indonesia is also indirectly accompanied by employment. In 2015, the number of workers involved in batik MSMEs was 173,829 people and this figure increased every year, so that in 2019 it became 199,444 people or an increase of 14.7%.

The batik MSMEs production sector in Indonesia has experienced positive growth in the past five years as can be seen from table 1.1, in 2011 it amounted to 4.137 trillion and in 2015 it amounted to 4.746 trillion or an increase of 12.8%. Positive growth was also followed in the batik raw material fulfillment sector, in 2011 the amount of raw materials required was 1.994 trillion up to 2015 to 2.288 trillion. The export value over five years also experienced a positive increase of 14.7%, in 2011 it was 43.961 trillion to 50.44 trillion in 2015.

A part from meeting domestic needs, batik MSMEs in Indonesia are also exported to meet foreign needs. Batik has become a very popular world fashion. The advantage of Indonesian batik compared to batik from other countries is the diversity of motifs and designs that tend to be refined, considering that Indonesia is a batik country that has known and developed batik for hundreds of years and batik crafts can adapt to increasingly dynamic economic competition.

The results of initial observations of batik businesses in 3 districts, namely Banyuwangi Regency, Jember Regency and Bondowoso Regency, show that batik businesses are managed by families and are included in the micro business category based on Law of the Republic of Indonesia (UU RI) Number 20 of 2008 concerning Micro Businesses, Small, and Medium (DPR RI, 2019). Article 1 of Republic of Indonesia Law Number 20 of 2008 concerning Micro, Small and Medium Enterprises states that Micro Enterprises are productive businesses owned by individuals and/or individual business entities that fulfill Micro Enterprises as regulated in this Law. Article 6 concerning Micro, Small and Medium Enterprises states that the criteria for Micro Enterprises are: 1) have a net worth of a maximum of IDR 50,000,000.00 (fifty million rupiah) excluding land and buildings where the business is located, or 2) have sales proceeds annual maximum IDR 300,000,000.00 (three hundred million rupiah).

The distribution of batik areas in Banyuwangi Regency is spread across several sub-districts, including Blambangan, Kalipuro, Rogojampi, Cluring and Muncar sub-districts, totaling 25 units. Bondowoso Regency is spread over Tamanan subdistrict and Grujukan subdistrict, totaling 8 units, and Jember Regency is spread over Sumberjambe Subdistrict, Patrang Subdistrict, Pakusari Subdistrict and Ambulu Subdistrict, totaling 10 units. Batik business actors consist of several groups of people, each of which works on one of the process nodes in the process of making batik cloth or batik (Poernomo et al., 2017). Based on the description above, the research problem is formulated as follows: Does knowledge influence product innovation in the batik creative industry? Does entrepreneurial orientation influence product innovation in the batik creative industry? Does product innovation influence the financial performance of the batik creative industry? Does knowledge influence performance? financial performance through batik creative industry product innovation? Does entrepreneurial orientation influence financial performance through batik creative industry product innovation?. The research contribution is expected to provide benefits in developing competitive advantage strategy models in batik creative businesses. This model will be created so that it can make it easier for creative batik business actors to implement it which is useful in maintaining the sustainability of their business. This research is also useful for local governments to formulate policies and strategies for developing creative industries after paying attention to and knowing the strengths and weaknesses faced in the creative industries in their regions

## 2. RESEARCH METHOD

The population of this research is the batik creative industry in Bondowoso, Banyuwangi and Jember Regencies. The research samples were all batik creative businesses in Bondowoso, Banyuwangi and Jember Regencies. The sampling technique was carried out by census (the entire population was taken as a sample) by researchers for certain reasons (Sugiyono, 2013).

Research respondents are owners/craftsmen of creative batik businesses that have been operating for at least three years and have financial records. The criteria for the creative batik business selected are those that fulfill the definition of a creative economy or creative industry or creative business. These criteria are utilizing knowledge capital, there is something new (for example motif designs, production tools, etc.). Outside of this, you cannot be used as a research respondent. The research locations were in Bondowoso, Banyuwangi and Jember regencies with a total of 43 respondents, owners/craftsmen of creative batik businesses. The research analysis unit is a business organization represented by the owner/craftsman of a creative batik business.

Proper data processing is using Generalized Structured Component Analysis (GSCA) analysis (Imam & Zainul, 2014). The data analysis method used in this research is descriptive statistical analysis and inferential analysis. Descriptive analysis is used to provide an empirical picture of respondents' answers presented in the form of a frequency distribution and the average value is measured. Meanwhile, in inferential analysis, Generalized Structured Component Analysis (GSCA) is used.

(Imam & Zainul, 2014) said that GSCA is a new component-based SEM method, very important and can be used for calculating scores (not scales) and can also be applied to very small samples. In addition, GSCA can be used in structural models that involve variables with reflexive and/or formative indicators.

## 3. RESULTS AND DISCUSSIONS

Table 1 Influence between Research Variables

Path Coefficients			
	Estimate	S.E	CR
resources->innovation	0.565	0.087	5.62*
resources->performance	0.599	0.216	5.46*
entrepreneurial orientation->innovation	0.675	0.072	9.34*
entrepreneurial orientation->performance	0.583	0.112	5.22*
innovation->performance	0.584	0.129	4.52*

Source: Primary data processed in 2023.

### 3.1 The Influence of Knowledge Variables on Product Innovation.

Hypothesis 1 which states that knowledge influences product innovation is not accepted. The resulting value is 0.565 with a t-count of 1.96. Based on this value, it can be said that the valuable and rare knowledge variables do not have a significant positive effect on product innovation. The conclusion that can be drawn is that increasing knowledge in batik companies has a significant positive effect on the company's product innovation.

From a theoretical perspective, the findings of this research are in line with the theory put forward by (Hitt, Michael A., Ireland R. Duane, Hoskisson, 2001), (Barney, J.B. & Clark, 2007) that there is a relationship between knowledge and product innovation. In an empirical perspective, previous research examining the relationship between knowledge variables and product innovation variables was carried out by (Rosli Mahmood et al., 2013), (Poernomo, D. Soemartono, A.Y. & Safitri, 2019), (Dan & Pengetahuan, 2013), (Frank Boonsa, Carlos Montal vob, Jaco Quistc, 2013).

### 3.2 The Influence of Entrepreneurial Orientation Variables on Product Innovation.

Hypothesis 2 which states that entrepreneurial orientation influences product innovation can be accepted. The direction of the path coefficient is positive, indicating that empirically the greater the entrepreneurial orientation, the greater the product innovation produced. The results of this research support the theory of (Barney, J.B. & Clark, 2007; Hitt et al., 2001) that there is a relationship between a company's entrepreneurial orientation and product innovation, while from an empirical perspective, it supports the research of (Bonacina Roldan et al., 2018; Rosli Mahmood et al., 2013; Zhang et al., 2017) even though they use different variable measurement indicators.

### 3.3 The Influence of Knowledge Variables on Company Performance.

Hypothesis 3 which states that knowledge influences company performance is not accepted. The knowledge variable is measured by the indicators as mentioned on the previous page, while the company performance variables used are increase in sales profits, increase in sales volume and rate of return on investment over the last 3 years.

From a theoretical perspective, the findings of this research support the theory of (Peteraf, 1993),(Barney, J.B. & Clark, 2007; Hitt, Michael A., Ireland R. Duane, Hoskisson, 2001) that there is a relationship between knowledge and company performance, and from an empirical perspective, these findings also support the research findings of (Poernomo, D. Wahono, P. & Puspitaningtyas, 2017), (J. Barney et al., 2001).

### 3.4 The Influence of Entrepreneurial Orientation Variables on Company Performance.

Hypothesis 4 which states that entrepreneurial orientation influences company performance is accepted. The findings of this research can be concluded that the greater the valuable, rare and inimitable entrepreneurial orientation of a batik company will result in an increase in the company's performance.

In a theoretical perspective, the findings of this research confirm the correctness of the theories of (Peteraf, 1993; Wenzel et al., 2021), Barney (2007), (Teece, 2007). That there is a relationship between entrepreneurial orientation and company performance. in

an empirical perspective, the findings of this research support the research findings of (Sirmon et al., 2011),(Cahyani et al., 2021).

### 3.5 The Influence of Product Innovation Variables on Company Performance.

Hypothesis 5 which states that product innovation influences company performance is accepted. The product innovation variable has a significant effect on company performance in a positive direction which indicates one direction, thus product innovation in batik companies is able to improve the company's performance.

From a theoretical perspective, the findings of this research confirm the truth of (Drucker, 1985) theory regarding innovation theory, especially product innovation. From an empirical perspective, the findings of this research support the research findings of (Rosli Mahmood et al., 2013), (Mulyana & Sutapa, 2014) (Bamford et al., 2015), which stated that there is a significant positive influence of product innovation on company performance.

### 3.6 Discussion of the Overall Model

This research shows four variables, namely two exogenous variables and two endogenous variables. The exogenous variables in this research are knowledge (X1) and entrepreneurial orientation (X2). Meanwhile, endogenous variables in this research include product innovation (Y1) and company performance (Y2).

This research uses GSCA analysis to test the influence between variables. The research results, as a whole, show the results of the evaluation of the structural model through measures of fit as measured by FIT, AFIT and GIT. However, because this study did not compare models, AFIT was not used. The results of the structural model feasibility test show a FIT value of 0.611. The FIT value shows that the research model can explain 61.1% of the data variation. Showing the FIT values obtained, it can be said that the variables of knowledge, entrepreneurial orientation and product innovation influence company performance at the 95% confidence level. The remaining 38.9% is influenced by other variables outside the model which are not discussed in this research.

The goodness of FIT indices (GFI) value is a measure of the accuracy of the model in producing the observed covariance matrix. The structural model test results show a GFI model value of 0.995. These results show  $GFI > 0.9$ . Based on the GFI value, it can be said that the GSCA model as a whole is very good or very precise in measuring company performance in the research sample or is declared good fit (feasible).

Hypothesis testing can be seen from the results of the structural model evaluation in the results of the GSCA analysis which can be explained in the structural model or the influence between the hypothesized variables. This research has tested five hypotheses. The criteria for the hypothesized causal influence use a significance limit of 5%, with the test criteria being that if the critical ratio (CR) is marked with an asterisk, it means that the t value is  $\geq t$  table ( $t=1.96$ ,  $\alpha=5\%$ ) then the hypothesis is declared to have a significant effect or is acceptable. Conversely, if the CR value  $< t$  table, then the hypothesis is declared to have no significant effect or is rejected. Based on the test results, it was found that two hypotheses were rejected and three hypotheses were accepted. This is indicated by the CR value marked with an asterisk for each variable relationship.

Paying attention to the results of the GSCA analysis, the structural linear model for the two endogenous variables is as follows: (a) Company performance (KP) =  $0.599 P + 0.583 OK + 0.584 IP$ , (b) Product Innovation (IP) =  $0.565 P + 0.675 OK$ . Through the structural linear model on the endogenous variables of company performance, it can be seen that product innovation makes the highest contribution, namely 0.584.

This finding means that if other variables are considered zero or non-existent, then product innovation has an influence on performance of 58.4%. These results also show that the product innovations that respondents continue to carry out influence company performance. In the linear model of the endogenous variable of company

performance, it can also be seen that the one that has the smallest contribution or even no effect on company performance is knowledge with an estimated value of 0.099. In the linear model, the endogenous variable product innovation is influenced by the respondent's entrepreneurial orientation by 0.675. These results mean that entrepreneurial orientation has an influence of 67.6% on company performance. These results show that the entrepreneurial orientation that respondents continue to hone produces sustainable product innovation. However, the value generated by knowledge of 0.565 has an effect on product innovation.

#### 4. CONCLUSION

Based on the research results and discussion, the results of this research can be concluded as follows. The Knowledge and Entrepreneurial Orientation variables have a significant positive effect on innovation and financial performance. This indicates that the better the knowledge and entrepreneurial orientation (innovative, proactive, aggressively competitive, brave to take risks, and independent) of batik creative economy business owners, the better the product innovation and financial performance will be. Knowledge and entrepreneurial orientation have a significant positive effect on financial performance through product innovation

However, the test results by including the product innovation variable as an intervening variable have a significant influence on the business performance of Batik MSMEs. Mergerknowledge and entrepreneurial orientation have a significant positive influence on the financial performance of the batik creative economy. This research model can thus be used to improve the performance of batik creative economy businesses.

Limitations in this research lie in the use of commonly used variables, namely: knowledge, product innovation, entrepreneurial orientation, and financial performance using regression analysis. Future research will be more complete if it studies using new variables that have never been studied using SEM analysis.

#### REFERENCES

- Bamford, C. E., Hoffman, A. N., Hunger, J. D., & Wheelen, T. L. (2015). Concepts Instructor ' s Manual Strategic Management and Business Policy Fourteenth Edition. *Pearson Education, I*, 1–23. <https://testbank24.com/pdf/Solutions-Manual-Strategic-Management-and-Business-Policy-Globalization-Innovation-and-Sustainability-14th-Edition-Wheelen.pdf>
- Barney, J.B. & Clark, D. . (2007). *Resource-Based Theory: Creating and Sustaining Competitive Advantage*. Oxford University Press.
- Barney, J. B., & Hesterly, W. S. (2015). *Strategic Management and CA - Concepts and Cases*.
- Barney, J., Wright, M., & Ketchen, D. J. (2001). The resource-based view of the firm: Ten years after 1991. *Journal of Management*, 27(6), 625–641. <https://doi.org/10.1177/014920630102700601>
- Bonacina Roldan, L., Hansen, P. B., & Garcia-Perez-de-Lema, D. (2018). The relationship between favorable conditions for innovation in technology parks, the innovation produced, and companies' performance: A framework for an analysis model. *Innovation and Management Review*, 15(3), 286–302. <https://doi.org/10.1108/INMR-05-2018-0027>
- Cahyani, A. A., Mallongi, S., & Mahmud, A. (2021). Pengaruh Orientasi Kewirausahaan, Inovasi Produk, Keunggulan Bersaing, Terhadap Kinerja Pemasaran Usaha Nasi Kuning di Kota Makassar. *PARADOKS: Jurnal Ilmu Ekonomi*, 4(1), 219–232. <https://doi.org/10.33096/paradoks.v4i1.768>
- Dan, M., & Pengetahuan, B. (2013). *TERHADAP KINERJA BISNIS ( Studi Pada Usaha Kecil dan Menengah Batik di JawaTimur )*.
- DPR RI. (2019). Undang-Undang Republik Indonesia Nomor 24 Tahun 2019 tentang Ekonomi Kreatif (UU No. 24 Pasal 21 Ayat 1 Tahun 2019). *Undang-Undang Republik Indonesia, 009640*, 9640–9659.
- Drucker, P. (1985). *The Discipline of Innovation*. Harvard Business Review.

- Frank Boonsa, Carlos Montal vob, Jaco Quistc, M. W. (2013). Sustainable Innovation, Business Models and Economic Performance: an overview. *Journal of Cleaner Production*, 45, 1–8.
- Hitt, Michael A., Ireland R. Duane, Hoskisson, R. (2001). *Strategic Management: Competitiveness and Globalization Concepts*. Thomson Learning Asia 60 Albert Complex.
- Hitt, M. A., Ireland, R. D., Camp, S. M., & Sexton, D. L. (2001). Strategic entrepreneurship: entrepreneurial strategies for wealth creation. *Strategic Management Journal*, 22(6–7), 479–491. <https://doi.org/10.1002/smj.196>
- Imam, S., & Zainul, A. (2014). The Effect of Market Orientation and Entrepreneurial Orientation toward Learning Orientation, Innovation, Competitive Advantages and Marketing Performance. *European Journal of Business and ManagementOnline*, 6(21), 2222–2839.
- Jung, J. H., Brown, T. J., & Zablah, A. R. (2022). How Customer Requests Influence Frontline Employee Job Outcomes: The Role of Personal Appraisal Tendencies and Situational Customer Demandingness. *Journal of Retailing*, 98(2), 315–334. <https://doi.org/10.1016/j.jretai.2021.03.005>
- Mulyana, M., & Sutapa, S. (2014). Peningkatan Kapabilitas Inovasi, Keunggulan Bersaing dan Kinerja melalui Pendekatan Quadruple Helix: Studi Pada Industri Kreatif Sektor Fashion. *Jurnal Manajemen Teknologi*, 13(3), 304–321. <https://doi.org/10.12695/jmt.2014.13.3.5>
- Peteraf, M. A. (1993). The Cornerstones of Competitive Advantage : A Resource-Based View Stable URL : <http://www.jstor.org/stable/2486921> Accessed : 09-03-2016 14 : 10 UTC Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use , available at ht. *Strategic Management Journal*, 14(3), 179–191.
- Poernomo, D. Soemartono, A.Y. & Safitri, R. . (2019). Innovation, Local Wisdom and Value Creation in “Batik” Creative Industry. *SAR Journal*, 2(4), 153–157. <https://doi.org/10.18421/SAR24-02>
- Poernomo, D. Wahono, P. & Puspitaningtyas, Z. (2017). The Role of Knowledge Absorption in the Mediation of the Effect of Social Network on the Competitive Advantages of “Batik” Micro Company. *Archives of Business Research*, 5(12). <https://doi.org/10.14738/abr.512.3933>
- Poernomo, D., Jember, U., & Wahono, P. (2017). *The Role Of Knowledge Absorption In The Mediation Of The Effect Of Social Network On The Competitive Advantages Of “Batik” Micro Company*. December. <https://doi.org/10.14738/abr.512.3933>
- Rosli Mahmood, Mahmood, R., Aarakit, S. M., Alarape, A. A., Al-swidi, A. K., Al-Hosam, A., Aminu, I. M., Shariff, M. N. M., Zhongfeng Su, En Xie, and Y. L., Ahmed, I., Ali, G., Ramzan, M., Andersén, J., Anderson, B. S., Eshima, Y., Arbaugh, J., Larry, W., Camp, S., Arief, M., ... Me, N. (2013). Entrepreneurial orientation and business performance of women-owned small and medium enterprises in Malaysia : Competitive advantage as a mediator. *International Journal of Business and Social Science*, 4(1), 82–90. <https://doi.org/10.1177/0266242612455034>
- Setyawati, S. M., & Rosiana, M. (2015). Inovasi Dan Keunggulan Kompetitif Sebagai Variabel Mediasi Pengaruh Orientasi Pasar Terhadap Kinerja Bisnis (Studi Empiris Pada Usaha Kecil Dan Menengah Di Purwokerto). *Sustainable Competitive Advantage (SCA)*, 5(1).
- Sirmon, D. G., Hitt, M. A., Ireland, R. D., & Gilbert, B. A. (2011). Resource orchestration to create competitive advantage: Breadth, depth, and life cycle effects. *Journal of Management*, 37(5), 1390–1412. <https://doi.org/10.1177/0149206310385695>
- Sugiyono, D. (2013). *Metode Penelitian Kuantitatif, Kualitatif, dan Tindakan*.
- Teece, D. J. (2007). Explicating Dynamic Capabilities : The Nature and Microfoundations of ( Sustainable ) Enterprise Performance Stable URL : <http://www.jstor.org/stable/20141992> AND MICROFOUNDATIONS OF ( SUSTAINABLE ) ENTERPRISE PERFORMANCE EXPLICATING DYNAMIC CAPABILITIES. *Strategic Management Journal*, 28(13), 1319–1350. <https://doi.org/10.1002/smj.64>(Received
- Vasconcelos, R., & Oliveria, M. (2018). Does innovation make a difference? *Innovation & Management Review*, 15(2), 137–154. <https://doi.org/10.1108/inmr-04-2018-011>
- Wenzel, M., Stanske, S., Lieberman, M. B., & Angeles, L. (2021). Strategic responses to crisis. *Strategic Management Journal*, 42(2), O16–O27. <https://doi.org/10.1002/smj.3161>
- Zhang, S., Wang, Z., Zhao, X., & Zhang, M. (2017). Effects of institutional support on innovation and performance: Roles of dysfunctional competition. *Industrial Management and Data Systems*, 117(1), 50–67. <https://doi.org/10.1108/IMDS-10-2015-0408>