

Empirical Investigation of Adaptation to Future Changes and Product Innovation Capabilities on the Marketing Performance

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Abstract

This study aims is to know the influence of product innovation capability on performance marketing through the mediation of adaptation to the future change. On this model there are several supporting variable, i.e. accessibility of new technologies and resource exploration products. In this study used a sample of 202 UMKM Batik Solo Raya, the sampling technique using simple random sampling technique. Testing data analysis using PLS (Partial Least Square) with the software WarpPLS 5.0. The findings in this study are aksesibilitas new technology a positive and significant effect against the ability of innovation of products. The power of positive exploration of influential products and significantly to the ability of innovation of products. The ability of product innovation, positive and significant effect on performance marketing. Adaptation to future changes aren't able to moderate the relationship between ability of product innovation and performance marketing. Limitations of this research this research respondents are owners or managers of UMKM batik mostly perform tasks as managers and employees so very busy.

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1. INTRODUCTION

Research on the relationship of product innovation capability on performance marketing is still a lengthy debate by many researchers. In research Najib & Kiminami, (2011) shows that innovation has a significant relationship towards the SME business performance. This research was conducted on the processed food industry is divided into 5 clusters in the region of West Java.

UMKM in Indonesia is very important in many ways, including their potential-potential in creating jobs and add value. Similarly, research conducted by Eris, Neczan, & Ozmen, (2012), performed on the company's logistics sector in Turkey which is market-oriented, innovative learning-oriented, and it was found that all the variables i.e. market orientation, oreientasi

learning and innovation that is effective at improving performance.

Varis & Littunen, (2010) in his research on UMKM located in the area North of Savo in Finland mentioned that the introduction of new products, processes and innovations the market positively related to the growth of the company, and none of the kind of innovation (products/processes/organizations/market) has a positive relationship with the profitability of the company. Innovation has a critical role in responding to the environment are surging. Innovation and ultimately will contribute to the creation of competitive advantage and performance improvement company Eshlaghy, Maatofi, & Branch, (2011).

Other studies conducted by Aksoy, (2017) conclude product innovation, positive effect on performance marketing. Product innovation has high value for consumers, thereby increasing the performance of corporate marketing. Product innovation is much more suitable for companies entering the market, because it is a successful product innovation produce profits, increase market share, and have a positive impact on the performance of the market. Product innovation offers superior value to the customer, therefore, lead to the growth of the market performance of the company. According to Löfsten & Lo (2014) portfolio management, process innovation and organization has a connection with the performance of innovation.

Research Gap

The innovation had an important role in increasing the performance of marketing, this has been proven by (Najib & Kiminami, 2011; Eshlaghy et al., 2011; Eris et al., 2012; Löfsten & Lo, 2014; Aksoy, 2017; Al-Lamy et al., 2018)

. But there is some research that gives different results i.e. Hartini, (2018) stating that company does not affect the innovation performance of firms directly, but significant effect to the quality of the product. Darroch (2005) research concludes the innovation does not significantly affect performance. Similarly, according to Mavondo et al. (2005) stated that product innovation does not have significant influence towards the effectiveness of marketing. The research of Kumar, Boesso, Favotto, & Menini, (2012) said that large companies

innovate much more effectively than UMKM. For simplicity in comparing the results of the research on the influence on performance of marketing innovation can be seen in table 1 below:

Tabel 1
Summary of the Research Gap Innovation Influences on Marketing Performance

Research Gap	Result	Reseachers	Methods
There is a difference innovation influences research results on marketing performance.	Significant and positif.	▪ Eris et al., (2012) ▪ Löfsten & Lo, (2014) ▪ Aksoy, (2017)	▪ SEM ▪ SEM ▪ SEM
	No significant and positif.	▪ Mavondo et al., (2005). ▪ Darroch (2005) ▪ Hartini, (2018)	▪ SEM ▪ SEM ▪ PLS

Source: developed for this research.

Based on table 1 visible that the results of research on the influence of innovation on performance marketing is also still give different results. It is therefore necessary the existence of further research in hopes to explain the causal relationships between innovation marketing performance.

The Phenomenon of UMKM Batik Business

Batik industry many are run by small and medium enterprises (UMKM) are scattered throughout Indonesia. UMKM here's what became Indonesia people's livelihoods. Batik industry spread across Java, so that it becomes the name of batik, each with different characteristics in each region, such as batik solo, pekalongan batik, batik, batik wonogiri, sragen, batik cirebon batik, batik lasem. The types of batik produced also varies, there are three types of batik, namely batik, batik and batik stamp printing.

Development of batik industry continue to increase, since the year 1980-90s batik clothes should be worn on state occasions or any other formal event, it makes the image of batik is increasing internationally. Then in October 2009 batik world recognition by UNESCO, namely the determination of batik as a world cultural heritage. The economic value of batik is also always on the rise, the Ministry of industry (Kemenperin) records a positive performance to export batik Indonesia throughout the first half of 2018. Batik Indonesia's exports reached USD 108.69 billion compared to the same period the rise or in the previous year which was only USD 98.79 billion. Batik export market also

experienced a rise, this time to the US and then to Japan, then to Korea, most of the market is the US, followed by Japan, then China and Korea Belgium.

Formulation of The Problem

Based on the research gap which has been described above, and on the results of previous research and business phenomena that are on small and medium enterprises (UMKM) Batik may then formulated the main problem in this research is **"how build a resource supporting product innovation capability on performance marketing, and how the role of adaptation to future changes of the relationship the ability of product innovation and marketing performance?"**

2. LITERATURE REVIEW

2.1. Accessibility Technology

Accessibility technology is the ability of a technology that is easy to use, easy to learn, fast access, and flexibility of the technology can operate in a wide range of information and communication technology devices; the availability of the features as needed. Ronny, (2012). Batik is undergoing modernization, coupled with the existence of technologies that are more advanced and profitable and can be used to preserve the batik. With accessibility technology batik can be remodeled and redesigned with a mathematics formula of course is done by using the help of computer technology. Based on the thinking that the hypothesis is determined as follows:

H₁: increasing accessibility of the technology increases performance marketing.

2.2. Resource Exploration Products

An exploration of the power of the product is the company's ability to continue to explore, find, doing variations, taking risk and experimentation and innovation against existing products based on knowledge. Atuahene-gima, (2016) according to competency exploration refers to the tendency of companies to improve and expand knowledge to innovation of existing products, increased skills and processes that are aimed at efficiency. Are the competence of the company's tendency to invest against the exploitation of resources to raise an entirely new knowledge that aims to achieve greater flexibility

and novelty product innovation through the variations of experience and thought . To enhance exploration of product carried by increasing new insights about batik, batik the natural colouring, cutting technique of batik cloth with a laser beam, or to draw a batik, batik motif design with the help of a computer. Based on the thinking that the hypothesis is determined as follows:

H₂: the higher power of exploration products, increasing the ability of innovation of products.

2.3. The Ability of Product Innovation

According to Sundbo, Orfila-sintes, & Sørensen, (2007), there are different types of innovation and the innovative activities such as product innovation, process innovation, and innovation markets. He explained that product innovation refers to the introduction of new products into the market. Innovation process refers to the introduction of new production processes as made possible by new technology or new work routines. Innovation market shows the behavior of the new market companies such as new strategies, new marketing, new alliances, and so on. Product innovation ability is the ability of companies in the creation of new products, new processes or new markets.

2.4. Marketing Performance

Baines & Egan, (2001) States that the performance of marketing can be mirrored by gaining market share, growth, market share, sales growth, profit growth and end customers. Anand & Khanna (2000), measuring the performance of these companies how marketing is able to generate profits from each customer, and the company's position in the competition. Performance marketing can also be measured from growth in sales volume, market share, profits obtained from marketing activities, and shareholder value Doyle et al., (2000). Things that cause marketing performance increase is the increased volume of sales, increase customer growth, controlled market share and compete with others. Based on the thinking that the hypothesis is determined as follows:

H₃: the higher the ability of innovation of products, increasing marketing performance.

2.5. Adaptation to Future Changes

Study of Weiss (2004) the company should be able to create an innovation on the market conditions are very diverse. The company's effort to win the competition, one of which is done through product innovation. According to Verhees, (2005), declares that the product innovation in small companies under the control of its owners, and small companies usually do product innovation by modifying the product as new. Research on product innovation using indicators Verhees experiments with something new and accept the challenge of product as a form of newness. To find out the newness that the company should be capable of adaptation to change in the future.

Adaptation to changes in the future could rise to be done several ways, one of which is should be able to adjust to change, i.e. in this case the existence of regulations from the local government that Thursday's entire employee agencies Government and private that is in Surakarta have to wear batik, in this case UMKM should immediately respond quickly the existence of those changes. This is an opportunity for employers to introduce more batik products more widely in the future. Based on the thinking that the hypothesis is determined as follows:

H₄: increasing adaptability to future changes are increasingly able to moderate the relationship the ability of product innovation and marketing performance.

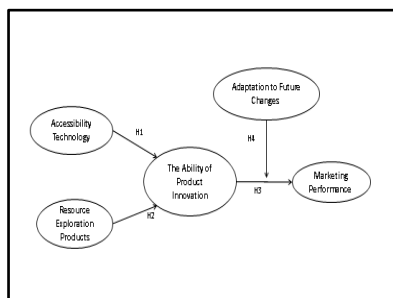


Figure 1 The Framework of Thought

3. RESEARCH METHODS

3.1. Sample

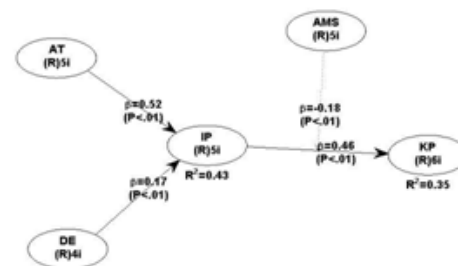
The sample used in this study UMKM 202 batik traders in Surakarta. Sampling techniques using simple random sampling where the sampling from the population at random

members regardless of strata that are present in the population.

3.2. Methods of Data Analysis

This research uses the technique of Partial Least Square (PLS) with software WarpPLS 5.0. Research to test the validity and reliability of research instruments, confirm the accuracy of the model, as well as test the influence of a variable against other variables.

4. DATA ANALYSIS



4.1 Outer Models

In testing the outer model using two parameters i.e., testing the validity of invalid constructs (convergent validity and determinant) and testing of internal consistency (reliability) invalid constructs. Testing the validity of invalid constructs of 24 indicators have been met.

4.1.1. Validity Test

Table 4.1. Average Variance Extract (Ave)

Discription	AT	DE	IP	AMS	KP	AMS*IP
Ave	0.590	0.604	0.574	0.645	0.691	0.431

Source: Output data processing WarpPls 5.0

Table 4.2. Determinant of Validity

	AT	DE	IP	AMS	KP	AMS*IP
AT	0.768	0.722	0.621	0.745	0.722	-0.386
DE	0.722	0.777	0.480	0.618	0.568	-0.240
IP	0.621	0.480	0.758	0.527	0.554	-0.431
AMS	0.745	0.618	0.527	0.803	0.805	-0.409
KP	0.722	0.568	0.554	0.805	0.832	-0.369
AMS*IP	-0.386	-0.240	-0.431	-0.409	-0.369	0.656

Source: Output data processing WarpPls 5.0

The table above the value of the average variance extract (AVE), loading factors and determinants of validity are met i.e. > 0.50. Validity of the test matrix determinants also pointed out that there is a very strong positive relationships and significant between one variable with another variable.

4.1.2. Reliability Test

Table 4.3. Reliability Test

Discription	AT	DE	IP	AMS	KP	AMS* ¹ P
Composite reliability	0.878	0.859	0.870	0.900	0.931	0.940
Cronbach's alpha	0.826	0.780	0.812	0.861	0.910	0.933

Source: Output data processing WarpPls 5.0

Reliability test results above show that the value of the composite reliability and alpha cronbach's > 0.70 where that value meets rule of thumb i.e. 0.60. Those results may imply that respondents consistently answered questions in the questionnaire.

4.2 Inner Model

Table 4.4. Path Coefficients

Variable	Path Coefficients	P-Values	Discription
AT → IP	0,524	<0,001	Significant and positive
DE → IP	0,170	0,007	Significant and positive
IP → KP	0,461	<0,001	Significant and positive
AMS → IP*KP	-0,178	0,005	Significant and negative

Source: Output data processing WarpPls 5.0

Based on table 4.4 above show that aksesibilitas new technologies towards product innovation capability has value's path (the path coefficients) of 0.524 and p-value of < 0.001 (significance < 0.05). This means new technology aksesibilitas a positive and significant effect against the ability of innovation of products. An exploration of the power of the product against the product innovation capability has a coefficient of 0.170 lines and p-value 0.007 (significance < 0.05). Those results may imply that the power of positive exploration of influential products and significantly to the ability of product innovation.

The ability of product innovation on performance marketing path coefficient has a value of 0.461 and p-value of < 0.001 (significance < 0.05). It shows that the ability of product innovation, positive and significant effect on performance marketing. Adaptation to future changes to moderate capabilities of product innovation and performance marketing has a coefficient of line-0.178 and p-value 0.005 (significance < 0.05). This means that adaptation to future changes are not capable of moderate ability of product innovation and performance marketing or adaptation to future changes weaken the relationship between product innovation capability on marketing performance.

4.3 Discussion

4.3.1 Testing of Hypothesis 1: the increasing aksesibilitas of new technology has increased the ability of innovation of products.

The results of statistical tests show that aksesibilitas technology innovation ability against the product's path has a value of 0.524 and p-value of < 0.001 (significance < 0.05), so that it can be concluded that if aksesibilitas technology increased product innovation capabilities then it will also increase (H1 is accepted). In other words aksesibilitas influential technology positively and significantly to the ability of the product innovation research results in accordance with Ismail & Mamat, (2012), which says that there is a significant relationship between the adoption of information technology and information technology performance.

4.3.2 Testing Hypothesis 2: the increasing power of exploration products increasingly improve product innovation.

The results of statistical tests show that the eksporasi power products against the ability of innovation of products have coefficients 0.170 lines and p-value 0.007 (significance < 0.05), so that it can be concluded that if the power is increased then the product exploration ability product innovation will also increase (H2 accepted). In other words, the power of positive exploration of influential products and significantly to the ability of innovation of products. The results of this research line with Atuahene-gima, (2016) that expresses the product of influential positive exploration competencies on performance competence are incremental innovations exploit the product a positive effect on performance of radical innovation.

4.3.3 Hypothesis 3: increasing the ability of increasing product innovation marketing performance.

The results of statistical tests demonstrate that ability innovation product on performance marketing, have a value of path's 0.461 and p-value of < 0.001 (significance < 0.05), so that it can be concluded that if the increased product innovation capability so increasing performance marketing. aksesibilitas technology from a positive effect on performance marketing through product innovation. (H3 Accepted). In other words the ability of product innovation,

positive and significant effect on performance marketing. The results of this study are in line with (Najib & Kiminami, 2011; Eshlaghy et al., 2011; Eris et al., 2012; Löfsten & Lo, 2014; Aksoy, 2017) which mentions that the product innovation capabilities a positive effect on marketing performance.

4.3.4 Hypothesis 4: increasing adaptability to future changes are increasingly able to moderate the relationship the ability of product innovation and performance marketing.

The results of statistical tests show that the adaptation to future changes of the relationship the ability of product innovation and marketing performance, have a value of path's-0.178 and p-value 0.005 (significance < 0.05), so that it can be concluded that adaptation future changes aren't able to moderate the relationship the ability of product innovation and performance marketing. (H4 Rejected). This is happens because batik UMKM still holds a certain standart (PAKEM) which has historical value, so it can be interpreted that batik UMKM enrich product innovasion but not concerned with adaptasion changes. The results of this research were not in line with the Boeker & Goodstein, (2017) stating that hospitals that are able to adapt to environmental change can improve the performance of hospitals.

5 CONCLUSION

Not all of the hypothesis in this study empirically supported. Hypotheses are supported namely accessibility technology have a positive and significant influence towards product innovation capabilities, resource exploration products have positive and significant influence towards product innovation capabilities. Product innovation capability also has a positive and significant influence on performance marketing. While the hypothesis that is not supported is the adaptation of future changes are not able to moderate the relationship the ability of product innovation and marketing performance, it is suspected there are other factors that are not discussed in this study.

6 MANAGERIAL IMPLICATIONS AND FUTURE RESEARCH

Based on the discussion and the conclusions above, the managerial implications as inputs for

UMKM innovation to enhance the capabilities of Batik products, by increasing the ability of product innovation with the power of producing new products, designs recently, the increase of new users, increases the ability to modify the products with other ingredients then it can improve the performance of marketing.

This research suggests future research based on its limitations. Upcoming research should add indicators or variables research in order to qualify in the test of normality. While the limitations in this research is upnormality research data makes this research analyzed using Partial Least Square (PLS). Therefore, the author's suggestions for further research is to test the level of normality research data taking into account the indicators used in the study.

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