

Regio Centric Capability Model, Innovation, Co-Creation and Customer Sensing to Marketing Performance (Study of Batik SMEs during Era Pandemic of Covid-19)

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Abstract. The industrial revolution 4.0 requires Small and Medium Enterprises (SMEs) to follow developments, the products produced can follow the competitive market. Innovation is an important factor to compete with similar products. This competition encourages SMEs to follow developments and customer tastes. Innovative products require Regio centric, co-creation and customer sensing capabilities to improve marketing performance. Objective of research is the population owner of batik producers in Pati and Semarang city. The number of samples used was 55 people, the sampling technique used was purposive sampling technique and the analysis technique used Phase II Regression Analysis and Chow Test. The results of the research before and during the pandemic showed that the Co-Creation variable had a significant effect on marketing performance through innovation and Regio centric had no significant effect on marketing performance. Customer sensing and innovation have a significant effect before the pandemic and during the pandemic is not significant. The results of the Chow test show that there is a structural difference in influence. The implications of this research for SMEs need to increase Co-creation and Innovation in order to improve marketing performance.

Keyword: Regio Centric Capabilities, Innovation, Co-Creation, Customer Sensing and Marketing Performance

1 Introduction

Innovation becomes one of the key words of company successful, innovation capability becomes one of the attractions to be able to compete with similar products in the market. Innovation capabilities include product innovation, process innovation, administrative innovation and marketing innovation and service innovation that has a relationship as well as relationships that synergize with *Customer Relationship Marketing* or CRM consisting of various information, customer engagement, long-term partnerships and technology-based problem solving in creating business performance [1]. In addition Collinson and Wang [2] explained that innovation capability is the company's ability and subsidiary components in conducting design innovation, marketing innovation as well as production innovation carried out by the company continuously in accordance with the advantages of resources owned by the company to access external sources for performance improvement. The phenomenon of Semarang City also has a distinctive batik with the design or motifs of Semarang classified into

as follows: Kotalama, Lawang sewu, Tugu muda, Blenduk Church and others, showing that Semarang batik has characteristics that are not owned by other regions.

The development of craftsmen also increased based on data from Central Java Cooperative and SMEs Office in 2018 consist of 89 batik craftsmen scattered in Pati Regency and Semarang City. Based on data from Regional National Craft Council abbreviated as *Dekranasda*, Semarang City shows rapid growth by sheltering 603 craftsmen consisting of SMEs, Small and Medium Micro Enterprises, and Small and Medium Industries (IKM). The amount of turnover also increased to 809 billion Rupiah until June 2018 and generated assets of 302.3 billion Rupiah. This progress cannot be separated from the various programs and innovations carried out by Regional National Craft Council of Semarang City in facilitating artisans, namely mentoring, training, marketing and financing (Kompas.com).

Furthermore, in February 2020 there was a coronavirus pandemic called Covid 19 that hit the whole world so that the performance of Batik SMEs in Semarang City was also affected by that condition which resulted in the number of sales decreased dramatically by up to 70 percent. During the Covid-19 Pandemic, Batik Business Actors Experienced Decrease in Turnover Up to 70%, April 07, 2020, as stated by Vedyana Ardyansah as Batik craftsmen, Zalzilah showed a collection of batik made with the original natural color of Kampung Malon Motif Myth (Vedyana Ardyansah / Ayosemarang.com).

Covid-19 pandemic caused a number of sectors to decline including Small and Medium Enterprises (SMEs). The decrease in sales turnover is one that is faced by SMEs actors. Based on this phenomenon, the problem will be examined "Why there is a continuous decline from February 2020 to now early 2021 related to the marketing performance of batik SMEs in Central Java which impacted during the Covid 19 pandemic".

2 Literature Review

The theory used is View Resource Based View or RBV, this theory explains from the internal aspects of the company that relates to the resources owned by the company [3]. According to Grant [4] explained that every company has the company's resources and capabilities. Furthermore, having an important role resource based view mentions resources to be determinants of advantage and the company able to take a benefit from superior success owned compared to competitors so that the company able to gain a significant advantage over competitors [5].

Innovation capability according to Kavanagh [6] was a Product innovation, process innovation, administrative innovation, marketing innovation and service innovation that has relevance and synergy with Customer Relationship Marketing or CRM includes information, customer engagement, long-term partnerships and customer-based problem solving to improve business performance. Furthermore, Collinson and Wang [2] explained that Innovation capacity is the company's ability and company components in design innovation, marketing innovation, and production innovation continuously in accordance with the resources advantages owned by company itself. In addition, Aryanto et al. [7] mentioned the company will maintain and manage the innovation process ranging from generating ideas to commercialization, a key factor in the innovation process is resources.

2.1 Co-creation into Innovation Capability

Prahalad and Ramaswamy [9] explained that the product concept that is currently transformed into the concept of *co-creation* has a high addition compared to the product. This

is reflected in the *value* of the product concept created by the company, while in the concept of product *co-creation* created between the company and the customer. According to the research Findings from Farida [10] explained that *co-creation* has significant effect into innovation.

2.2 Customer Sensing Relationship to Innovation Capabilities

The customer's role has important benefits for the company, one of the important factors is customer orientation as a competitive strategy that can influence behavior that can increase the value of the product for consumers and provide guarantees in the long term [11]. Moreover, Weick et al. [12] explained that Sensing is a number of organizational mechanisms to be able to get in touch and act on events in the company environment. In line with Zhang and Wu [13] mentioned Customer Sensing is a unique ability that is essential to transforming potential benefits through access to information and a secure environment to be able to generate new product development. In addition, based on the research result from Töytäri and Rajala [14] stated by Creating superior customer value is the company's ability to manage resources in order to be superior as well as to survive in a competitive market. According to Tsai et al. [15] the company should be able to understand what the customer needs so that it can be fulfill through the innovation process that is the product design innovation produced and obtain the design essentials according to the customer's wishes by using extensive analysis and extension transformation to be able to produce new products.

2.3 Relationship of Innovation Capability to Marketing Performance

Innovation capability according to Lawson and Samson [16] was the ability to make changes and ideas about new products, processes and systems for the benefit of companies and stakeholders, in addition innovation according to Cleff and Rennings [17]. Product innovation has an impact on the environment by considering market interests and adjusting to the market segment of the product innovation offered. Marketing performance according to O'Sullivan and Abela [18] was a marketing performance that is influenced by the thoughts, knowledge and consumer behavior of customers so that it can affect the company's performance can be concluded that the higher the quality of innovation will be followed by the higher the marketing performance of the company.

2.4 Products that are able to compete are products

That have a differentiator or differentiation that is a design able to distinguish from competing products [19]. Furthermore, Bharadwaj et al. [20] stated that product differentiation will be able to affect competitive advantage. It is supported by Colgate [21] that the organization's resources and capital are able to create competitive advantages. According to Smith and Wright [22] stated that customer loyalty can give rise to a strong advantage that can improve performance as a Regio centric company's excellence.

The hypotheses are as follows:

H1: There is *Co-Creation* influence on *innovation capabilities*

H2: There is an effect of Customer Sensing on Innovation Capabilities

H3: There is an influence of *Innovation Capability* on Marketing Performance

H4: Regio centric Product Excellence affects Marketing Performance

H5: There are differences in regression model influence patterns before and during pandemics

3 Method

This research uses a quantitative approach using survey methods with the population is all SMEs Actors in Pati Regency and Semarang City. The sampling technique used is *purposive sampling* which is sampling as many as 55 SMEs actors with certain criteria, namely: 1) owners of SMEs and BATIK SMEs; 2) at least have 3 workers 3) have been producing for 3 years, the number of samples as many people and willing to do an interview. The measurement scale using 5 is strongly agree (5), Agree (4), Neutral (3), Disagreement (2), disagree (1). The analysis techniques used are Regression Analysis II and CHOW TEST to compare Regression Results Before and During the Covid 19 Pandemic.

4 Result and Discussion

The number of respondents as many as 55 people based on gender, as many as 39 people are women and 16 people are men, the age of the respondent's majority as many as 33 people aged between 46 to 50 years old and 25 years to 40 years old as many as 22 people. Based on the education level of the majority educated from Senior High School as many as 25 people, educated Junior High School as many as 11 people and Elementary School as many as 7 people, Diploma as many as 3 people and 9 people educated from Bachelor Degree. Respondents' income per month amounted from 5,000,000 to 10,000,000 million Rupiah, as many as 30 people and less than 5,000,000 million Rupiah as many as 5 people and income from 11,000,000 to 15,000,000 million Rupiah as many as 20 people.

Descriptive research results on respondents' answers related to Co-creation variables shows that the indicator that had the highest score above average is that SMEs owners have ties with customers such as providing examples of design and color choices from customers and special services for customers with a score of 4.29, while the score is below average on indicators of SMEs owners not experienced in collaborating with customers well with scores. 4.16. This shows that co-creation of cooperation and collaboration from SMEs owners has not been optimal.

Customer Sensing variables show that the indicator of SMEs owners has the ability to monitor the rise or fall of market demand with a score of 4.36, the indicator of SMEs owners has the ability to adjust to changes and market tastes of 4.31 and the ability to use information from customers with a score of 4.29, with an average score of 4.29. Furthermore, the score below the average value there are 2 indicators, namely SMEs owners have not been able to observe the market with a score of 4.25 and have not been able to share experiences with customers with a score of 4.24.

The Innovation Capability Variable has an average score initiator of 4.17, the highest indicator is that SMEs Owners have an ability to design Batik products that are difficult to imitate competitors with a score of 4.33 and indicators of SMEs owners can adjust themselves to market conditions, with an average score of 4.27., while 2 other indicators are SMEs Owners who do not yet have the ability to produce Batik products that are difficult to imitate by competitor with a score of 4.13 SMEs owners have not been able to perform the ability to produce for different raw materials with a score of 3.96.

Regio centric Product Superiority Capability Variable based on respondents' answers showed the highest score above the average of 4.49, indicators related to SMEs Owners have a way to promote Batik products, have a way to guarantee quality with a score of 4.51 has a way

to maintain the reputation of Batik products with a score of 4.29. Furthermore, there is one initiator who has a value below the average score, namely SMEs owners do not yet have a way- or strategy to raise the image of Batik products produced with a score of 4.42.

Marketing Performance Variables based on the study results shows that 3 indicators had a score average above, namely the indicator of SMEs owners having sales volume growth although unlike under normal conditions or before the pandemic condition with a score of 3.71, having the number of customers of Batik products within one year there was an increase although a bit with a score of 3.73 and an increase in profitability was also smaller than a pandemic era with a score, 3.69 and indicators with values below the average score of 3.60 conclude that there is no market expansion for batik products.

4.1 The Research Result Before Covid-19 Pandemic

Hypotheses show that H1b Co-creation has a significant effect on Innovation Capabilities; H2b Customer Sensing to Innovation Capabilities is insignificant. H3b Innovation Capability has a significant effect on Marketing Performance and H4b Regiocentric Capability has no effect on Marketing Performance.

H1b hypothesis that Co-Creation (CC) positively affects the Innovation Capability (KI) is accepted because the t calculated value = 5,582 is greater than the table $t = 1,671$ and probability = 0.000 is smaller than $\alpha = 0.05$. H2b hypothesis that Customer Sensing (PP) has a positive effect on The Innovation Capability (KI) is not accepted because the value of t calculates = 1,472 Smaller than t table = 1.671 and probability = 0.147 smaller than $\alpha = 0.05$. H3b hypothesis that The Innovation Capability (KI) positively affects Marketing Performance (KP) is accepted because the value of t calculates = 2.855 is greater than the table $t = 1,671$ and probability = 0.006 is smaller than $\alpha = 0.05$. Hypothesis H4b that Regiocentric Excellence (KR) positively affects Marketing Performance (KP) is not accepted because the value t calculates = - 0.139 is smaller than the table $t = 1.671$ and probability = 0.890 is smaller than $\alpha = 0.05$

4.2 The Research Result After Covid-19 Pandemic

The results show that H1a Co-Creation has a significant effect on Innovation Performance; H2a Customer sensing has no significant effect on Innovation Capabilities. H3a Innovation Capability has a significant effect on Marketing Performance and Regiocentric Capability does not have a significant effect on Marketing Performance.

- a. The stage I regression model has an *adjusted* R^2 value of 0.532. This suggests that CC and PP variables can explain the variation of bound variables (KI) amount 52.3% while those 47.7% are described factors outside the model. This model has a calculated F value of 31,701 greater than the table F value of 3,070 and a probability of 0.000 smaller than $\alpha = 0.05$ so as significant.
- b. The phase II regression model has an *adjusted* R^2 value of 0.207. This suggests that the KI and KR variables can explain the variation of the bound variable (KP) amount 20.7% while the 79.3% described factor outside the model. This model has a calculated F value of 8.052 greater than the table F value of 3,070 and a probability of 0.000 less than $\alpha = 0.05$. Based on the above explanation it can be said that the regression model of stage I and Regression Phase II in this study is feasible so that it can be further analyzed. H1b hypothesis that Co-Creation (CC) positively affects the Innovation Capabilities (KI) is accepted because the t calculated value = 5,582 is greater than the table $t = 1,671$ and probability = 0.000 is smaller than $\alpha = 0.05$

- c. H2b hypothesis that Customer Sensing (PP) has a positive effect on The Innovation Capabilities (KI) is not accepted because the value of t calculates = 1,472 smaller than t table = 1.671 and probability = 0.147 smaller than $\alpha = 0.05$.
- d. H3b hypothesis that The Innovation Capabilities (KI) positively affects Marketing Performance (KP) is accepted because the value of t calculates = 2.855 is greater than the table t = 1,671 and probability = 0.006 is smaller than $\alpha = 0.05$.
- e. H4b hypothesis that Regiocentric Excellence (KR) has no effect on Marketing Performance (KP) is not accepted because the value t calculates = - 0.139 is smaller than the table t = 1.671 and probability = 0.890 is smaller than $\alpha = 0.05$.

4.3 The results calculation Test in contrast to the Chow Test

Above show that the value of F for the regression equation stage I is $5,288 > F \text{ table} = 3,000$. Likewise, the value F for the stage II regression equation is $8.145 > F \text{ table} = 3,000$. This suggests a structural difference in the pattern of influence of variables – free variables to variables bound in the period before and during the Covid-19 pandemic. The results of H5a hypothesis processing that there are differences in the influence patterns of stage I regression models before and during Covid-19 pandemic are accepted. H5b hypothesis is that there are differences in the influence patterns of phase II regression models before and during Covid-19 pandemic accepted.

5 Conclusion

The research results related to co-creation variables, customer sensing, innovation capabilities, and capabilities of regiocentric product excellence to marketing performance in the pandemic era have an impact on the performance of Batik product distribution. There is an insignificant hypothesis of customer sensing to Innovation Capability conditions and regiocentric advantages at market performance before and during pandemics, Hypothesis there are structural differences in the pattern of influence of Regression Model I and Model II before and during pandemics. The limitations of this research on the objects of SMEs owners only in 2 regencies namely Pati Regency and Semarang City so that the number of respondents is limited, the object of *Batik Tulis* Furthermore needs to be done research that in the current pandemic era is still ongoing to find out the impact on the marketing performance of other SMEs such as fashion by using more comprehensive analysis techniques and structural equation modeling SEM PLS analysis techniques.

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