The Effect of Environment Complexity and Resources on the Performance of SMEs Mediated By Business Strategy (Survey on Kasongan Pottery SMEs In Bantul Regency)

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Article Information

Abstract

This study aims to analyze the effect of environmental complexity and resources on the performance of SMEs mediated by business strategy in Kasongan pottery SMEs. The population in this study were all SMEs pottery handicrafts in the Kasongan pottery center in Kasihan District, Bantul Regency, Yogyakarta. Total of 61 questionnaires have been returned and processed. The data analysis technique used was Partial Least Square (PLS) through SmartPLS 3.3.2 software. The research shows that environmental complexity has a positive and significant effect on performance of SMEs, resources have a positive and significant effect on performance of SMEs, environmental complexity has a positive and significant effect on business strategy, resources have a positive and significant effect on business strategy, and business strategy has a positive and significant effect on performance of SMEs. Also, it is found that environmental complexity has a positive and significant indirect effect on performance of SMEs through business strategy and resources have a positive and significant indirect effect on performance of SMEs mediated by business strategy.

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INTRODUCTION

Micro, Small and Medium Enterprises (SMEs) as independent organizations have a major role in Indonesia's economic growth. As many as 64 million SMEs in Indonesia have become the backbone of the Indonesian economy in the midst of various upheavals. This amount reaches 99.9% of all businesses operating in Indonesia. Being the backbone of the economy does not necessarily make SMEs free from problems. The low market reach in selling production, the lack of services in the form of regulations, the limited management of human resource capacity, input goods and technology are still inadequate, and the limited capital in operations is still a problem in developing SMEs (Aziz et al., 2018) . The technological challenges of the industrial revolution 4.0 are also homework for SMEs. Not to forget, the factors in the business environment that are changing so rapidly present uncertainty that SMEs must face in order to continue to grow and survive.

Kasongan is the center of the pottery industry which is also a tourist village located in Bantul Regency. The experience of making pottery presented in Kasongan has attracted many domestic and foreign tourists to visit. The production of pottery was initially only in the form of household appliances which later in its development was wrapped with a touch of art, it turned out to produce products of high economic value that were able to penetrate the international market. Kasongan as a tourist village is included in the ranks of tourist villages in Bantul Regency which occupies the 5th position of the ten most visited tourist attractions in Yogyakarta by attracting 1,509,508 visitors. However, the Covid-19 pandemic that hit in 2020 has resulted in social restrictions so that the impact on the economy is also felt by this SMES center. The closing of tourism gate has reduced their income in terms of pottery making training services. Export and shipping gate which were closed at the beginning of the social restriction period also contributed to the sales reduction of pottery products. Decreasing in public purchasing power, increasingly fierce competition, and resource problems are the upmost concern for craftsmen and entrepreneur here.

As one of Indonesia's largest economic builders, the performance of SMEs continues to be a concern for the government. Support for SMEs must be enhanced especially when it came to crisis circumstance. Efforts to empower SMEs are becoming increasingly critical, given the increasingly dramatic changes in the global business environment that require SMEs to achieve competitive advantage in order to win the competition and survive (Annatan and Ellitan, 2009; Suardhika, 2012; Gede, 2020). Performance is the level of achievement of the company's achievements as measured through work results. Company performance is something that is produced by a company in a certain period with reference to the standards set (Rivai and Basri, 2004). The company's achievements can be influenced by the external business environment. Rapid and drastic changes in the environment characterize the complexity of the environment which is marked by uncertainty regarding consumer needs or tastes, competition, technological developments (Braglia & Petroni, 2000). Complexity theory models (Capra, 1996; Stacey, 1995; Wheatley, 1992; Ashmos, 2000) suggest that all organizations are complex adaptive systems, which are continuously self-regulating and co-evolving. This theory shows that every organization is actually able to adapt in the midst of environmental changes to continue to achieve superior performance.

Answering the problem of resource management is something that needs to be done for SMEs. Resources are assets that owned by a company. Optimal and superior performance can be achieved when the company has a number of special resources with various operating capabilities, marketing dynamics, marketing capabilities, and marketing viability (Sukdej and Ussahawanitchakit, 2015; Sabihaini 2018). It has been realized that competitive advantage cannot be separated from the resource-based strategy approach (Resource Based View) which holds that controlling unique strategic resources by directing management to identify, control, and develop strategic resources to produce optimal performance (Barney, 1995).

Facing today's business challenges, business people are starting to realize the importance of a business strategy to win the competition or at least maintain their business. Strategy means achieve long-term goals to be achieved by a company. The concept of strategic fit is one of the fundamentals regarding strategy as a link between the firm and its external environment. The strategy must be carried out in accordance with the external and internal environment, including resources and capabilities (Grant, 2010). The idea of strategic fit has been extended to contingency theory which emphasizes that no particular managerial action or organizational design fits all situations.

Based on the description above, the purpose of this study is to examine the impact of the environment's complexity and resources on the performance of SMEs in Kasongan pottery as mediated by business strategies.

1. Performance of SMEs

Performance have been defined as the level of achievement or achievement of the company as measured by the results of work. Company performance is something that a company produces over a specific period in relation to the standards that have been established (Rivai and Basri, 2004). Subjective measures can be used to assess the performance of small businesses. For small businesses, subjective performance measures are preferred over objective measures for a variety of reasons, as stated by Miles et al (2000). First of all, small businesses maintain financial information very carefully and strongly. As a result, subjective performance information will be easier to obtain than objective information, which will be tightly guarded. Second, objective financial data for small businesses is not published accurately and is sometimes not even available, making it impossible to verify the accuracy of reported financial performance. Third, assuming that financial data are accurately reported, the existing data are for the most part difficult to interpret. Subjective performance measurement is based on the perception of company managers. Some of the SMES performance measures that advised by researchers include Sabihaini and Januar Eko (2018); Hadjimonalis (2000); Miles et al. (2000); Lee and Miller (1996); Kim and Choi (1994) are sales growth, employment growth, income growth and market share growth as the most important measurement of small company performance.

2. Environment Complexity

Environment complexity can be stated as the degree of heterogeneity of the environmental elements in which the company operates (Keats & Hill, 1988). Environmental complexity is characterized by uncertainty and a turbulent business environment related to needs, consumer tastes, increased competition, technological changes, and socio-economic issues (Braglia and Petroni, 2000). The theory of management contingency (Burns and Stalker, 1961, Scott, 1981, Grant, 2010) states that organizations react more complex organic structures that reflect diversity in the environment when they consider the environment to be complex and turbulent. The criteria for measuring the environmental complexity were developed, use 4 indicators, namely changes in consuming tastes, levels of competition, changes in suppliers behavor and technological developments, of the concept of competition (Dess & Miller, 1993; Tan & Litchsert, 1994; Porter 1996, Braghlia & Petroni, 2000; Lucas, et al., 2010; Benito, et al., 2010; Sabihaini, 2012).

3. Resources

Wheelen (2018) stated that resources are organizational assets which are the basic building blocks of an organization. Resources can also be said as everything owned by the organization, both tangible and intangible that can be used to achieve a certain result. The theory of resource-based strategy (Resource Based View) holds that companies that are able to control the uniqueness of their resources will be able to maintain their competitive advantage by directing management to manage, control, and develop resource strategies to produce optimal performance (Barney, 1995). According to Kor and Mahoney (2009) there are 6 indicators that can be used to measure resources, they are physical resources, reputation resources, financial resources, human resources, organizational resources, and technological resources.

4. Business Strategy

Strategic is the way that individuals or organizations use to achieve their objectives (Grant, 2010). Porter said that strategy is to create a set of organizational activities in a way to provide added value to customers (Becker et al., 2009). The business strategy is a combination of commitments and resources-building activities to create unique competitive capabilities for certain markets, according to Phongpetra (2011). Porter (1980) in Fred R. David (2016) proposes three generic strategies to achieve excellence in a particular industry, namely cost leadership strategies, differentiation strategies, and focus strategies.

Sabihaini and Mintarti (2012) in their research found that environmental complexity has a positive and significant effect on performance. This finding shows that the more complex the environment, the higher the level of achievement of company performance. Furthermore, Suardhika's research (2011) found a negative relationship between environmental dynamics and business performance. This means that the higher the level of environmental dynamics, it will hamper or reduce business performance. The complex environment is more or less forcing every form of business to continue to adapt in order to maintain its business performance. So, the first hypothesis formed is:

H1: Environment complexity has a positive and significant effect on the performance of SMEs at the Kasongan pottery center.

The resources and capacity of the company have a big role in improving the company's performance (Pearce and Robinson, 2007). Proper resource management will improve work performance. This argument is supported by Sabihaini's research (2018) which finds a positive relationship between resources and performance. The better the resources, the higher the performance that can be achieved. Suardhika (2011) also found a positive relationship between strategic resources and business performance, which means that the stronger strategic resources, the better business performance. So the second hypothesis formed is:

H2: Resources have a positive and significant impact on the performance of SMEs at the Kasongan pottery center.

Lukas, et al. (2001) have shown the relationship between environment and strategy that has positive and significant implications for business performance. Sabihaini and Januar Eko (2018) found a negative relationship between environmental complexity and diversification strategy, which means that the higher the environmental complexity, the lower the level of diversification. A complex and swiftly changing environment will spur companies in an industry to become more adaptive in adjusting their strategies. Therefore, the third strategy is:

H3: Environment complexity has a positive and significant effect on business strategy at the Kasongan pottery center.

Strategic decisions are closely related to the resources owned by a company. How a company manages its resources has an influence on the strategy implemented. This argument is supported by the research of Gede et al. (2020) who found that resource strategy has a positive and significant effect on competitive strategy. A stronger resource strategy will increase the suitability of the competitive strategy. Sabihaini and Januar Eko (2018) also found a positive relationship between resources and diversification strategies. Therefore, the hypothesis is:

H4: Resources have a positive and significant impact on business strategy at the Kasongan pottery center.

Strategy provides guidance for the companies who want to achieve their objectives (Gibcus and Kemp, 2003; Qi et al., 2011; Parnell, 2011; Gede et al., 2020). The company will achieve, maintain, and improve good performance through the implementation of the right business strategy. Gede et al. (2020) researched that competitive strategy had a positive and significant effect on business performance and supported this argument. Therefore, the hypothesis is:

H5: Business strategy has a positive and significant impact on the performance of SMEs at the Kasongan pottery center.

Lukas et al. research (2001) showed that the environment and strategy are compatible with each other and have positive performance implications. Arrive (2018) concludes that corporate strategy can mediate company performance environmental complexity. The role mediation of diversification strategies in the connection between environmental complexity and business performance was also identified in Sabihaini and Januar Eko (2018). A corporation will be urged to pay more attention to assessing its external environment by sensitivity to changes in business settings in order to design the proper strategy to be implemented in a circumstance to improve its business performance. As a result, the hypothesis is as follows:

H6: Environment complexity has a positive and significant impact on the performance of SMEs through a business strategy as a mediation at the Kasongan pottery center.

The suitability of the applied strategy with company resources is an important first step in improving company performance (Wernerfelt, 1984, Porter, 1998, Gede 2020). Suardhika (2011) found a positive and significant indirect effect between strategic resources on business performance through competitive strategies as mediation. That is, the more effective strategic resources as the basis for competitive strategy, the more effective the business performance. Gede's (2020) research conducted on 149 SMEs in Bali found that resource strategy and performance have a positive and significant indirect relationship through competitive strategy. So, the hypothesis formed is:

H7: Resources have a positive and significant impact on the performance of SMEs through a business strategy as a mediation at the Kasongan pottery center.

METHOD

This study employs the quantitative survey method. With a sample of 61 SMEs, the population studied was all SMEs in the Kasongan pottery industry center. Because there are fewer than 100 samples in the research population, the sampling technique is census sampling. Each SMES is represented by its owners or managers. The perception of the SMES owner or management is used to measure the factors in this study. The information used is primary data gathered from survey respondents. In this study, an interval scale with a Likert scale technique was applied. With the help of the SmartPLS 3.3.2 application, this study employs the partial least square (PLS) data analysis technique.

RESULT AND DISCUSSION

Descriptive Analysis

This study used descriptive analyzes to describe the characteristics and variables of SMEs and respondents. The characteristics of the SMEs examined were based on the age of the SMEs and on the age and ultimate level of training of the respondents. A table of characteristics of SMEs and participants is provided below.

Table 1. Characteristics of SMEs and Respondents

Characteristics	Quantity	Percentage
Age of SMES		
<5 years old	4	6,56%
5 – 10 years old	10	16,39%
>10 years old	47	77,05%
Age of Respondent		
< 30 years old	6	9,84%
31 - 40 years old	11	16,39%
41 - 50 years old	28	45,90%
< 50 years old	16	26,23%
Level of Education		
Elementary School	2	3,28%
Junior High School	11	18,03%
High School	35	57,38%
Diploma	5	8,20%
Bachelor	8	13,11%

Source: Primer Data, 2020

Table 1 shows that the majority of the SMEs studied in this study are over 10 years old, accounting for 77,05 percent of the total. Most of the respondents are 41-50 years old, accounting for 45,90 percent of the total, and the majority of them have completed high school or equivalent, accounting for 57,38 percent of the total.

Outer Model

Validity testing was done using the loading factor value, discriminant validity, and average variance extracted (AVE). Reliability testing used the composite reliability and Cronbach's alpha values in the evaluation of the measurement model. All of items in each variable in this study have a loading factor value more than 0,7, so the findings of the loading factor test (see Appendix 1) can be used to conclude that all indicators in the study are valid. All indicator variables in this study have the largest cross loading values formed (see Appendix 2). Based on the results obtained, it can be stated that the indicators used in this study have good discriminant validity in compiling the variables.

Convergent validity testing in this study was also carried out by looking at the Average Variance Extracted (AVE) value. The research instrument can be declared valid if it has an AVE value above 0,50 (Hair et al., 2013 in Sholihin and Ratmono 2013). Table 2 shows the AVE value of this research instrument. All of the AVE values in this research were more than 0,50. This signifies that all of the measures that compose the construct of this study are valid because they meet the criteria.

Tabel 2. AVE, *Composite Reliability, Cronbach's Alpha*

	Average Variance Extracted (AVE)	*Composite Reliability*	*Cronbach's Alpha*
Kinerja UMKM	0,733	0,943	0,926
Kompleksitas Lingkungan	0,701	0,949	0,939
Strategi Bisnis	0,683	0,945	0,934
Sumber Daya	0,690	0,961	0,955

Source: SmartPLS Processed Data, 2020

The value of composite reliability and Cronbach's alpha are used in reliability testing. If the composite reliability and Cronbach's alpha values are greater than 0,70, an instrument was shown to be reliable. Table 2 demonstrates that all constructs in this study have a value greater than 0,70, indicating that it has good reliability.

Inner Model

Evaluation of the structural model was conducted by goodness of fit test, path coefficients test, and hypotheses test. The goodness of fit test can be done by looking at the value of the coefficient of determination (R^2), the value of predictive relevance, and the goodness of fit index.

Tabel 3. Coefficient of Determination (R^2)

Variable	R^2
Performance of SMES	0,899
Strategi Bisnis	0,893

Source: SmartPLS Processed Data, 2020

Based on table 3, it can be seen that the R^2 value of SMES performance is 0,899 and the R^2 value of business strategy is 0.893. The R^2 value on the SMES performance of 0,899 indicates that the ability of the complexity of the environment, resources, and business strategy in explaining the performance variable is 89,9%, meanwhile, the R^2 value of the business strategy of 0,893 indicates that the ability of environmental and resource complexity to explain the variables business strategy that is equal to 89,3%. Furthermore, the goodness of fit assessment is carried out by looking at the predictive relevance (Q^2) value. The results of the calculation of the value of Q^2 based on the formula according to Hussein (2015) are as follows.

$$Q^2 = 1 - (1 - R_1^2)(1 - R_2^2) \dots (1 - R_p^2)$$
$$Q^2 = 1 - (1 - 0,899)(1 - 0,893)$$
$$Q^2 = 0,889$$

The results of the calculation above have obtained a Q^2 value of 0,889, this indicates the magnitude of the diversity of the research data that can be explained by the research model is 88,9% while the remaining 11,1% is explained by other factors outside the research model. Furthermore, goodness of fit test can be done by looking at the goodness of fit index which is calculated by the following formula.

$$\text{GoF} = \sqrt{\overline{AVE} \times \overline{R^2}}$$
$$\text{GoF} = \sqrt{0,702 \times 0,896}$$
$$\text{GoF} = 0,793$$

The goodness of fit index calculation above yielded a value of 0,793, which may be classified as high because it is greater than 0.38. As a result, the model in this study has been determined to have a good goodness of fit.
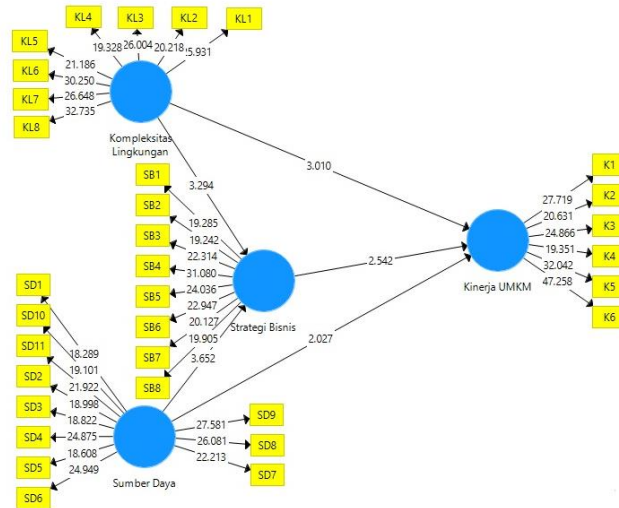
Figure 1. Result of Inner Model
Source: SmartPLS Processed Data, 2020

Furthermore, in testing the structural model, the path coefficient test is carried out. Path coefficient testing is conducted to determine how strong the effect or influence of certain independent variables on the dependent variable. Based on the test results of the inner model as shown in Figure 1 above, it can be seen that the largest path coefficient value is indicated by the influence of resources on business strategy, which is 3,652. Then followed by the effect of environmental complexity on resources that is equal to 3,294. This is followed by the effect of environmental complexity on the performance of SMEs, which is 3,010 and the influence of business strategies on the performance of SMEs, which is 2,542. And the last is the influence of resources on the performance of SMEs which is 2,027.

Direct and indirect impacts are tested to evaluate hypotheses. The following steps can be used to decide whether to accept or reject the hypothesis: (1) looking at the P values and (2) comparing the t-statistical value with the t-table (Hussein, 2015). With a df of 58, the t-table value for this study is 1.6715.

Tabel 4. Direct Effect

	Original Sample	T Statistics	P Values
Environment Complexity → Performance of SMEs	0,408	3,010	0,001
Environment Complexity → Business Strategy	0,452	3,294	0,001
Business Strategy → Performance of SMEs	0,297	2,542	0,006
Resources → Performance of SMEs	0,261	2,027	0,022
Resource → Business Strategy	0,505	3,652	0,000

Source: SmartPLS Processed Data, 2020

Based on table 8, the results of hypothesis testing are obtained:
H1: Environment complexity has a positive and significant effect on the performance of SMEs in the Kasongan pottery center, because the original sample was 0,408 (positive), t statistic was 3,010 (> 1,6715), and P values were 0,001 (<0,05).
H2: Resources have a positive and significant effect on the performance of SMEs at the Kasongan pottery center, which is accepted because the original sample is 0,261 (positive), t statistic is 2,027 (>1,6715), and P values are 0,022 (<0,05).
H3: Environment complexity has a positive and significant effect on business strategy for SMEs at the Kasongan pottery center, which is accepted because the original sample is 0,452 (positive), t statistic is 3,294 (> 1,6715), and P values is 0,001 (<0,05).
H4: Resources have a positive and significant effect on business strategy for SMEs at the Kasongan pottery center, because the original sample is 0,505 (positive), t statistic is 3,652 (> 1,6715), and P values 0.000 (<0,05).
H5: The business strategy has a positive and significant effect on the performance of SMEs in the Kasongan pottery center, because the original sample is 0,297 (positive), the t statistic is 2,542 (> 1,6715), and the P values are 0,006 (<0,05).

Table 5. Indirect Effect

	Original Sample	T Statistics	P Values
Environment Complexity → Business Strategy → Performance of SMES	0,134	1,954	0,026
Resources → Business Strategy → Performance of SMES	0,150	1,859	0,032

Source: SmartPLS Processed Data, 2020

Based on table 9, the results of hypothesis testing are obtained:

H6: Environment complexity has a positive and significant effect on the performance of SMEs through business strategies as a mediation at the Kasongan pottery center, which is accepted because the original sample is 0,134 (positive), t statistic is 1,954 (> 1,6715), and P values 0,026 (<0,05).

H7: Resources have a positive and significant impact on the performance of SMEs through business strategies as a mediation at the Kasongan pottery center, because the original sample is 0,150 (positive), t statistic is 1,859 (> 1,6715), and P values 0,032 (<0,05).

SEM-PLS Mediation Testing with the Variance Accounted For (VAF) Method

The Variance Accounted For (VAF) test aims to determine how much the mediating variable's ability to absorb direct effects. VAF calculation is done by dividing the indirect effect by the total effect. The total effect is the sum of the direct and indirect effects (Sholihin and Ratmono, 2013). If the VAF shows value more than 80%, then the mediating variable can be said to be full mediation. The VAF value which is in the range of 20-80% indicates the mediating variable as partial mediation. If the VAF value does not reach 20%, it can be stated that there is almost no mediation at all (Hair et al., 2013 in Sholihin and Ratmono, 2013).

Table 6. VAF Calculation

Direct Effect	
1. Environment Complexity → Performance of SMES	3,010
2. Resources → Performance of SMES	2,027
Indirect Effect	
1. Environment Complexity → Business Strategy → Performance of SMES	1,954
2. Resources → Business Strategy → Performance of SMES	1,859
Total Effect	
1. Environment Complexity,Business Strategy, Performance of SMES (3,010+1,954)	4,964
2. Resources, Business Strategy, Performance of SMES (2,027+1,859)	3,886
VAF = Indirect Effect / Total Effect	
1. VAF Environment Complexity (1,954/4,964)	0,394
2. VAF Resources (1,859/3,886)	0,479

Source: SmartPLS Processed Data, 2020

Based on the VAF calculation table in table 6, the VAF value for testing the effect of business strategy variables as a mediator between the effect of environmental complexity on SMES performance is 0,394 or 39,4%. Meanwhile, the VAF value to test the effect of business strategy variables as a mediator between the influence of resources on SMES performance is 0,479 or 47,9%. From these results, it can be concluded that the business strategy has a partial mediating effect.

Environment complexity has a positive and significant effect on the performance of SMEs at the Kasongan pottery center, according to the results of testing hypothesis 1. The more complex the environment, which is characterized by diversity or heterogeneity and rapid turbulence, which refers to the high level of change in consumer tastes who want diverse products, increased price, quality, and quantity competition between SMEs in pottery, the occurrence of changes in supplier behavior and the number of suppliers, and the increasing development and the increasing development of technology use will improve the performance of SMEs. This result is different from Suardhika's (2011) research which found a negative relationship between environmental dynamics and business performance. this is due to a new trend that

has occurred during the COVID-19 pandemic in Indonesia, the trend of growing crops. As a result, the demand for pottery in the form of plant pots has increased sharply. Hence the environmental complexity faced due to this pandemic can actually improve the performance of SMEs in Kasongan.

Based on findings from hypothesis 2, the performance of SMEs at the pottery center Kasungan has been shown to be influenced positively and significantly by resources. This means that the higher the optimization of the resources owned by SMEs, including the optimization of physical resources, namely equipment and production sites, financial availability and financial capability, adequate human resources and has participated in the development of appropriate resources, has a good product reputation and high level of customer trust in SMEs and a good reputation from the suppliers side, being able to utilize organizational resources such as control and coordination systems, and using the right technology in their business activities, the higher the performance achieved by SMEs. These findings are consistent with the results of research conducted in Sabihaini and Januar Eko (2018) and Suardhika (2011).

The findings of testing hypothesis 3 revealed that environment complexity is related to corporate strategy in a positive and significant way. The increasing complexity of the environment, which refers to the high level of change in consumer tastes who want a variety of products, the increasing price, quality, and quantity competition between SMEs in pottery, changes in supplier behavior and the number of suppliers, and technological developments, will also increase the business strategy. The results of this study are in line with Gede et al., (2020) who found that resource strategy has a positive and significant effect on competitive strategy.

The results of testing hypothesis 4 have shown that resources are positively and significantly related to business strategy. This entails increasing the efficiency of SMEs' resources, such as optimizing physical resources, such as equipment and production sites, financial availability and financial capability, adequate human resources and participation in the development of appropriate resources, having a product reputation and high customer trust in SMEs, and having a good reputation in the suppliers side, the ability to use organizational resources such control and coordination systems, as well as the appropriate technology in company activities, will improve business strategy. This is consistent with the findings of Gede et al. (2020), who discovered that resource strategy has a positive and significant effect on competitive strategy.

The results of hypothesis 5 test have shown that business strategy is positively and significantly related to the performance of SMEs. This means increasing business strategies that refer to keeping costs lower than competitors, having cost-efficient products, conducting cost analysis and improving coordination across various products, creating different products, conducting market research on different products, focusing on specific customers, focusing on certain products, and focusing on certain market segments will improve SMES performance

The indirect effect test on hypothesis 6 has shown that there is a positive and significant indirect relationship on the effect of environment complexity on SMES performance mediated by business strategy. This means that a business strategy that refers to a cost leadership strategy, a differentiation strategy, and a focus strategy is able to support the influence of environment complexity in improving the performance of SMEs at the Kasongan pottery center. Business strategy is able to support the influence of environmental complexity which refers to changes in consumer tastes, levels of competition, changes in supplier behavior, and levels of technological development so that environmental complexity can improve SMES performance which refers to sales growth, income growth, employment growth, market share growth, profit growth, and overall performance.. This finding is in accordance with research by Sabihaini and Januar Eko (2018), which also found that diversification strategy plays an intermediate role in the relationship between environmental complexity and company performance.

Meanwhile, evaluating hypothesis 7 demonstrates that business strategies mediate a positive and significant indirect relationship between resource influence and SMEs' performance. That seems to be, a business strategy that includes a cost leadership strategy, differentiation strategy, and focus strategy can help SMEs at the Kasongan pottery center improve their performance by leveraging resources. The business strategy could indeed support resource optimization which involves physical, reputation, financial, human resources, organizational and technological resources to improve performance. This finding is in line with Gede's (2020) research results, which found a positive and significant indirect link in resource strategy and performance through competitive strategy.

CONCLUSION AND RECCOMENDATION

Based on the results of the research analysis, several conclusions can be drawn, conducted environmental complexity has a positive and significant influence on the performance of SMEs. The more complex an environment will improve the performance of SMEs. Resources were found to have a positive and significant influence on the performance of SMEs, which means that the higher the optimization of the resources owned by SMEs, the higher the performance that can be achieved by SMEs. Furthermore, in this study it was also found that the complexity of the environment has a positive and significant effect on business strategy, this means that the higher the complexity of the environment, it will increase the

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implementation of business strategies in SMEs. Resources were found to have a positive and significant effect on business strategy, which means that optimizing the utilization of the resources owned by SMEs has increasing the implementation of the strategies. Business strategy was found to have a positive and significant influence on the performance of SMEs, this means that the increased implementation of business strategies will spur the improvement of SMEs performance. Meanwhile, this study shows that business strategy has an indirect effect on environmental complexity on SMEs performance and resources on SMES performance. The business strategy is able to support the complexity of the environment and optimize human resources in improving the performance of SMEs.

This research yielded the following recommendations:

1. SMEs should make greater use of technology in their day-to-day operations. If appropriately utilized, the advancement of today's technology can be one of the cornerstones of a company's prosperity. In the middle of the Covid-19 pandemic, which has severely restricted physical activity, information technology plays a critical role in many sectors of life. SMEs might see this as an opportunity by utilizing social media and online marketplace to their advantage.

2. Enhance SMES participation in any training or capacity-building activity carried out by relevant agencies, so that the human resources potential can be fully exploited.

3. SMEs must pay closer attention to the market segments they are aiming for. Knowing the target market group will make it easier for SMEs to obtain information about what products that consumers want, allowing them to satisfy their customers' requirements and preferences while also focusing resources, time, and expenses effectively.

REFERENCES

Aaker, D.A. 2001. *Developing Business Strategies 6th Edition.* John Wiley and Sons Inc., USA.

Arash Azadegan, Pankaj C. Patel, Abouzar Zangoueinezhad, Kevin Linderman. 2013. The Effect of Environmental Complexity and Environmental Dynamism on Lean Practices. *Journal of Operations Management* (Elsevier B.V) 31: 193-212.

Ashmos, Donde P. and Dennis Duchon. 2000. Organizational responses to complexity: the effect on organizational performance. *Journal of Organizational Change Management* 13: 577-594.

Aziz, Muhammad Abdul, Susilo Toto Raharjo, Amie Kusumawardhani. 2018. ANALISIS ORIENTASI STRATEGI UNTUK MENINGKATKAN INOVASI DAN KINERJA BISNIS (Studi Pada UKM Kasongan Kabupaten Bantul Daerah Istimewa Yogyakarta) 27: 1-20.

Benito, J. G., Rocha, D.R., dan Queiruga, D. 2010. The Environment as A Determining Factor of Purchasing and Supply Strategy: An Empirical Analysis of Brazilian Firms. *International Journal Production Economics.*

Carvalho, Carlos Eduardo, Carlos Ricardo Rossetto, & Miguel Angel Vedinelli. 2016. Strategic Orientation As A Mediator Between EnvironmentalDimensions and Performance: A Study of Brazilians Hotels. *Journal of Hospitality Marketing Management* Vol.25

David, Fred R. 2016. *Manajemen Strategik: Suatu Pendekatan Keunggulan Bersaing-Konsep Edisi 15.* Jakarta: Salemba Empat

Ferreira, Joao and Cristina Fernandes. 2017. Resources and capabilities' effects on firm performance: what are they? *Journal Of Knowledge Management* Vol. 21 NO. 5 2017, pp. 1202-1217.

Gede, I Riana, Wibawa I Made Artha, Suparna Gede. 2020. The Influence Of Strategic Resources And Competitive Strategy. *Russian Journal of Agricultural and Socio-Economic Sciences* 174-185.

Ghozali, L., dan Latan, H. 2015. *Partial Least Squares Konsep, Teknik dan Aplikasi Menggunakan Program SmartPLS 3.0.* Semarang: Badan Penerbit Universitas Diponegoro.

Grant, Robert M. 2010. *Contemporary Strategy Analysis Seventh Edition.* John Wiley & Sons Ltd., UK.

Arrive Jean Tsitaire, Mei Feng. 2018. The complexity of the environment, management control and firm performance. *Business Strategy and the Environment* (Wiley) 1-8.

Lukas, B.A., Tan J.J., and Hult, G.M. 2001. Strategy Fit in Transitional Economies: The Case China's Electronics Industry. *Journal of Management.*

Mahoney Joseph T, Yasemin Y. Kor. 2005. How Dynamics, Management, And Governance Of Resource Deployments Influence Firm-Level Performance. *Strategic Management Journal* (Wiley Interscience) 26: 489-496.

Michael A. Hitt, R. Duane Ireland, S. Michael Camp, Donald L. Sexton. 2001. Guest Editors' Introduction to The Special Issue Strategic Entrepreneurship: Entrepreneurial Strategies for Wealth Creation. *Strategic Management Journal* 22: 479-491.

Morgan P. Miles, Jeffrey G. Covin, Michael B. Heeley. 2000. The Relationship between Environmental Dynamism and Small Firm Structure, Strategy, and Performance. *Journal of Marketing Theory and Practice*: 63-78.

Phongpetra, Lichak & John, Lalit. 2011. Impact of Business Performance of Automobile Manufactures in Thailand. *International Journal of Emerging Markets,* 6 (11):17-37.

Porter, Michael. 1980. *Competitive Strategy.* United States: The Free Press A Division of Macmillan Publishing Co., Inc.

Sabihaini, Djumilah Hadiwidjojo, Djumahir, Mintarti Rahayu. 2012. Kompleksitas Lingkungan Dan Regulasi Pemerintah: Implikasinya Terhadap Kinerja Perbankan Di Jawa Timur. *Jurnal Keuangan dan Perbankan* 16: 455–471.

Sabihaini and Januar Eko. 2018. Non-Market Capability: Improve Performance Banking Industry. *Journal of Engineering and Applied Sciences* (Medwell Journals) 13 (Special Issue 10): 8142-8147.

Sholihin, M. & Ratmono, D. 2013. Analisis SEM-PLS dengan WarpPLS 3.0. Yogyakarta: Penerbit ANDI

Suardhika. 2011. Integrasi Sumber Daya Strategis, Orientasi Kewirausahaan, dan Dinamika Lingkungan Sebagai Basis Strategi Bersaing serta Pengaruhnya terhadap Kinerja Usaha (Studi pada UKM di Bali). *Jurnal Aplikasi Manajemen* 10: 212-227.

Thomas L Wheelen, J. David Hunger, Alan N. Hoffman, Charles E. Bamford. 2018. *Concepts in Strategic Management and Business Policy: Globalization, Innovation and Sustainability.* 15th. Pearson.