

## Analyzing the relationship between green innovation, creative excellence, empowerment and marketing performance of Indonesian SMEs

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### ABSTRACT

This study aims to explain the partial and simultaneous effect of green innovation, competitive advantage and empowerment on marketing performance. Quantitative research method is used through data collection from online surveys with a sample of 130 respondents. Green innovation variable with innovation indicators in processes and products, competitive advantage variable with unique product indicators, flexibility, customer relationships and empowerment variables are measured from the dimensions of market development, knowledge and facilities. The marketing performance variable is expressed in three dimensions, namely sales, growth, and market share. The measurement of respondents' answers to the questions in the questionnaire adopts a Likert scale consisting of seven alternative answers. Furthermore, the results of the questionnaire are analyzed using multiple linear regression with the help of the SPSS program. The results of the research indicate that competitive advantage and empowerment have a positive and significant effect on marketing performance, however, green innovation has a negative and insignificant effect on marketing performance. Simultaneously there is a positive and significant effect of green innovation, excellence competitiveness and empowerment on SME marketing performance.

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## 1. Introduction

In the era of the industrial revolution, SMEs are expected to be a positive solution to overcome to many problems. As a manifestation of the government's concrete steps in tackling socio-economic problems that occur as an effort to build the national economy, the government encourages and develops the SME movement in order to increase its contribution to the national economy. The economy has entered a new era where the sources of competitive advantage have changed, where the advantages of an economy are not only sourced from technology, let alone natural resources. Business performance according to Yousaf (2021) and Zhang et al. (2022) can be measured based on the achievement of marketing and financial performance. Marketing performance is a measure of achievement obtained from the overall marketing process activities of a company or organization. In addition, marketing performance can also be viewed as a concept used to measure the extent to which market achievements have been achieved by a product produced by the company.

Competitive advantage based on innovation and creativity must be prioritized since it has durability and a longer period of time. Innovation is considered as one of the most important engines for business growth, and successful innovation can drive business performance forward in its field. Innovation is the novelty of production or adoption, assimilation and exploitation of the economic and social fields that provide added value, renewal and expansion of products, services and markets. Fan et al. (2021) and Guo et al. (2021) show that innovation has a positive effect on business performance. Research by Wang et al. (2021), Wu et al. (2022), Yousaf (2021) and Zhang et al. (2022) also show that innovation ability directly contributes to product quality and operational performance, indirectly through the moderating role of operational performance on performance. Innovation in the modern era cannot be separated from the issue of global warming and the

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demands for new environmentally friendly products and business processes by minimizing the impact on the environment, which is often called green innovation. While the definition of green innovation according to Guo et al. (2021) and Hsu et al. (2021) is a process for developing new or significantly improved products (goods and services), which provide a significant reduction in environmental impact compared to the relevant alternatives. Green innovation can be done both in product innovation and process innovation. The purpose of this study is to explain partially and simultaneously the effect of green innovation, competitive advantage and empowerment on the marketing performance of SMEs.

The results of research from Munawar et al. (2022) show that green innovation has a significant effect on competitive advantage in SMEs. The findings differ from the research of Rehman et al. (2021) which state that green innovation has no significant effect on competitive advantage in SMEs. Tu and Wu (2021) and Wang et al. (2021) also show that green innovation has no significant effect on the marketing performance of SMEs.

**H<sub>1</sub>:** *Green innovation has a positive and significant effect on the marketing performance of SMEs.*

Competitive advantage absolutely must be owned by the company or its products to achieve good performance. Competitive advantage is a collection of factors that distinguish a company from its competitors and give it a unique position in the market.

**H<sub>2</sub>:** *Competitive advantage has a positive and significant effect on the marketing performance of SMEs.*

Empowerment programs cannot only be carried out in one cycle and stop at a certain stage, but must be continuous and the quality continues to increase from one stage to the next. Some of the research literature that links the relationship between empowerment and performance is the research finding from Taroreh (2016) that empowerment has a significant effect on the performance of SMEs.

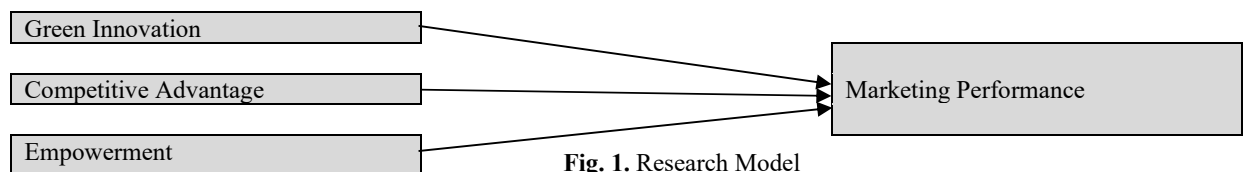
**H<sub>3</sub>:** *Empowerment has a positive and significant effect on the marketing performance of SMEs.*

The performance measurement of SMEs prioritizes financial and non-financial aspects perceived by the owners or managers of SMEs in relation to the suitability of these measures for business achievement, as well as the level of satisfaction of these measures with performance achievement. Marketing performance is a measure of achievement obtained from the overall marketing process activities of a company or organization. In addition, marketing performance can also be viewed as a concept used to measure the extent to which market achievements have been achieved by a product produced by the company.

**H<sub>4</sub>:** *Green innovation, competitive advantage and empowerment simultaneously have a positive and significant impact on the marketing performance of SMEs.*

## 2. Method

This research method is quantitative with data collection through online questionnaires with a sample of 130 respondents. Green innovation variable with innovation indicators on processes and products, competitive advantage variable with unique product indicators, flexibility and customer relations, empowerment variables measured from the dimensions of market development, knowledge and facilities. Marketing performance variables are expressed in three dimensions, namely: sales, growth, and market share. The measurement of respondents' answers to the questions in the questionnaire adopts a Likert scale consisting of five alternative answers, namely strongly agree (five), agree (four), quite agree (three), disagree (two), and strongly disagree (one). Furthermore, the results of the questionnaire will be analyzed using multiple linear regression with the help of the SPSS program.



## 3. Result and Discussion

Multiple linear regression analysis was conducted to determine how much influence the independent variable (X) had on the dependent variable (Y).

**Table 1**

**Model Summary**

Model	R	R-Square	Adjusted R-Square	Std. Error
1	0.910	0.905	0.998	.10340

Multiple correlation analysis was carried out to find out how big the relationship (correlation) between the variables of green innovation, competitive advantage and X3 to the Y variable. Table 1 obtained a multiple correlation coefficient (R) of 0.910 or 91.0% which means there is a positive and very strong relationship (with the criteria very weak = 0 to very strong = 1)

between the independent variables, namely green innovation, competitive advantage and empowerment of the Y variable. The value of the coefficient of determination (R Square) is used to determine the strength of the relationship between the independent variables together with the dependent variable. The coefficient (R Square) or determination is 0.905, which means that the independent variable (X) is able to explain the dependent variable (Y) of 90.5%. The remaining 9.5% is explained from other variables that are not included in this study.

#### Partial Test (t-test)

Table 2 shows the results of multiple regression related to the partial effect of variable X on variable Y.

**Table 2**

The results of the regression analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.313	0.076		4.125	0
	Green innovation	-0.026	0.036	-0.059	-0.721	0.409
	Competitive advantage	0.242	0.112	0.359	2.098	0.024
	Pemberdayaan	0.37	0.08	0.679	4.234	0

The green innovation variable with tcount value obtained is -0.721 and the significance level is 0.409. Meanwhile for ttable is -1.96. Based on the hypothesis test criteria  $t_{count} < t_{table}$  ( $-0.721 > -1.9$ ) at the significance level ( $0.409 > 0.05$ ), then H1 is not supported. So it can be concluded that the green innovation variable has a negative and insignificant effect on marketing performance. Competitive advantage variable with tcount value obtained is 2.098 and significant at 0.024. Based on the hypothesis test criteria  $t_{count} > t_{table}$  ( $2,098 > 1.96$ ) at the significance level ( $0.024 < 0.05$ ), then H2 is supported. So it can be concluded that the competitive advantage variable has a positive and significant effect on marketing performance. The empowerment variable with tcount value obtained is 4.234 and is significant at 0.000. Based on the hypothesis test criteria  $t_{count} > t_{table}$  ( $4.234 > 1.96$ ) at the significance level ( $0.000 < 0.05$ ), then H3 is supported. So it can be concluded that the empowerment variable has a positive and significant effect on marketing performance.

#### Simultaneous Test (F-Test)

Simultaneous regression coefficient test or F-test is used to determine whether all independent variables included in the model have a simultaneous effect on the dependent variable, as shown in Table 3.

**Table 3**

ANOVA

Model		Sum of Squares			F	Sig.
		Squares	df	Mean Square		
1	Regression	9.759	3	3.253	256.897	.000b
	Residual	0.431	39	0.011		
	Total	10.19	42			

The results of Table 3 can be seen that the Fcount value is 256,897 with a significance level of 0.000, while Ftable is 2.85 with a significance level of 0.05 (5%). The  $F_{count} > F_{table}$  ( $256.897 > 2.85$ ) while the significant level is  $0.000 < 0.05$ . So it can be concluded that H4 is supported. This shows that the variables of green innovation, competitive advantage and empowerment simultaneously have a positive and significant effect on the marketing performance variable.

## 4. Discussion

The results of multiple regression analysis show that the green innovation variable has a negative and insignificant effect on marketing performance. These results show differences in the hypothesis statement that green innovation has a positive and significant effect on marketing performance. This finding supports the research results of Wang et al. (2021), Wu et al. (2022), Yousaf (2021) and Zhang et al. (2022). that green innovation has no significant effect on marketing performance in SMEs. The results show that Green innovation has a positive impact on competitive advantage, The competitive advantage variable has a positive and significant effect on marketing performance. The results of this study also support the results of previous studies by Khanra et al. (2022), Muangmee et al. (2021), Wang et al. (2021), Wu et al. (2022), Yousaf (2021) and Zhang et al. (2022), which show that competitive advantage has a significant effect on marketing performance in SMEs. The results of this study are supported by research findings from Wang et al. (2021), Wu et al. (2022), Yousaf (2021) and Zhang et al. (2022) show that competitive advantage has a significant effect on the marketing performance of SMEs. The empowerment variable has a positive and significant effect on marketing performance. The results of this study also support the results of previous research by Fan et al. (2021) and Guo et al. (2021), which indicate that empowerment has a significant effect on performance and also found that empowerment has a positive and significant effect on the performance of SMEs. The results of multiple regression analysis simultaneously show that the variables of green innovation, competitive advantage and empowerment have a positive and significant effect on marketing performance. The most dominant empowerment variable has a positive and significant effect on marketing performance, compared to the green innovation

variable, and competitive advantage. The theoretical implication of the research findings shows that there are still inconsistent results, that there is a negative and insignificant effect of green innovation on marketing performance. This research uses product and process dimensions on the green innovation variable, so it is necessary to examine in more depth the possibility of applying other dimensions that are proactive and reactive. Further research is expected to be carried out on a larger sample and in other export-oriented SME sectors with different geographical conditions.

## 5. Conclusion

The results have shown that partially there was a negative and insignificant effect of green innovation on the marketing performance of SMEs. There was a positive and significant effect of competitive advantage on the marketing performance of SMEs. There was a positive and significant influence of empowerment on the marketing performance of SMEs. The results of the simultaneous influence research show that there was a positive and significant effect of green innovation, competitive advantage and empowerment on the marketing performance of SMEs. The findings of this study are supported by recent research from Wang et al. (2021), Wu et al. (2022) and Yousaf (2021) conducted on SMEs, found that empowerment has a positive and significant effect on the performance of SMEs. Research results from Rehman et al. (2021), Tu and Wu (2021) and Wang et al. (2021) show that competitive advantage has a significant effect on marketing performance in SMEs. The results of this study are supported by research findings from Munawar et al. (2022) and Rehman et al. (2021) that competitive advantage has a significant effect on marketing performance in SMEs. Wang et al. (2021), Wu et al. (2022), Yousaf (2021) and Zhang et al. (2022) show that green innovation, competitive advantage and empowerment affect the marketing performance of SMEs. A practical implication of research results as input for SMEs and the government is that green innovation has a positive impact on competitive advantage, since SME products are of high quality and are in demand by customers who have high awareness of environmentally friendly products. But the application of green innovation does not have a big impact on marketing performance.

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