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The Influence of Digital Transformation and Product Innovation on The Performance of SMES in Medan Tuntungan District

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Abstrak

The creative industry in Medan has undergone a remarkable evolution, becoming a dynamic contributor to economic development and cultural enrichment. Small and Medium Enterprises (SMEs) play a crucial role in shaping this dynamic industrial landscape, driving innovation and driving economic growth. The purpose of the research is to determine the Influence of Digital Transformation and Product Innovation on the Performance of SMEs in Medan Tuntungan District. This research method is a descriptive research on the Influence of Digital Transformation and Product Innovation on the Performance of SMEs in Medan Tuntungan District, Descriptive research is carried out by collecting data based on factors that support the research object, then analyzing these factors to find their role. Sampling in this study used the Slovin Method from the calculation results with the number of samples obtained was 226. In sampling, accidental sampling is used, namely sampling by random means. The results of the Research on Digital Transformation and Product Innovation Variables directly have a significant positive influence on SME Performance, Digital Transformation Variables directly have a positive and significant influence on SME Performance variables, Product Innovation Variables directly have a positive and significant influence on SME Performance variables.

Keyword: Digital Transformation, Product Innovation, SME Performance

1. INTRODUCTION

The creative industry in Medan has undergone a remarkable evolution, becoming a dynamic contributor to economic development and cultural enrichment. Small and Medium Enterprises (SMEs) play a crucial role in shaping this dynamic industrial landscape, driving innovation and driving economic growth. (Margono et al., 2021; Priyana, 2022; Rahmasary et al., 2021; Rustiadi et al., 2021). In Law Number 20 of 2008, several important points are explained that are the direction in the process of empowering SMEs, namely: (a) creating a balanced, developed and equitable economic structure for all, (b) developing the ability of SMEs to develop and become strong, independent and impactful businesses for the community, and (c) improving the function of SMEs as partners in building regional economies in the regions, creating jobs, providing equal income, a growing economy and being able to be a partner of the government in alleviating poverty in the community.

There are obstacles to business sustainability management, so government support is needed through marketing digitalization (Wijaya and Nuringsih, 2022). The Ministry of Communication and Informatics said that of the 65.47 million SMEs in Indonesia, around 19 million have entered digital transformation and utilized e-commerce for trade (Yovanda, 2022). This value is still limited, so it is necessary to expand the adaptation of SMEs to digital transformation with the aim of contributing to improving performance such as market share, sales and profits. The interesting relationship between creativity and innovation in SMEs is because SMEs apply creative ideas into new products which is considered the main challenge of innovation (Castillo Vergara & García Pérez-de Lema, 2020). SMEs rely on creativity to improve their innovation performance, but a lack of resources hinders this process in developing countries (Castillo Vergara & García Pérez-de Lema, 2020).

In addition, digital transformation has a great influence on changes in activities in SMEs in producing competitive advantages. Digital transformation in SMEs that focuses on innovation, technology adoption, and new value creation that aims to build marketing performance. Therefore, to be able to survive in market competition, it must be able to act quickly to improve marketing performance in this digital era, what companies need to pay attention to is being able to improve their capabilities in digital marketing and be able to carry out digital transformation quickly. Through this phenomenon, it can be concluded that the importance of digital transformation in facing competition and the innovation process in increasing competitiveness between SMEs and SME performance for SMEs actors. This factor is also an indication of how developed the SME is and how superior the competitiveness between SMEs is over competitors obtained by delivering greater customer value, through cheaper prices or by providing more benefits according to higher pricing. Competitive advantage is the main factor that affects the performance of a business and related institutional aspects, so that competitive advantage and business performance both have urgency as a barometer of the success of a business.

2. RESEARCH METHOD

2.1 SME Performance

Mulfachriza et al. (2021) said that the performance of SMEs can be described through the capacity to innovate and the willingness to take risks. This will make it easier to innovate, develop and grow. Hertati (2022)

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said that the performance of SMEs can be measured by how business actors create business excellence through appropriate and sophisticated strategies and technological innovations. The performance of a company or SME is the result made by the management or company continuously and is the result of the decisions of many individuals to achieve the company's goals, both small and medium enterprises (Fitriati, Purwana, & Buchdadi, 2020). Based on this description, it can be concluded that the performance of SMEs is an overview of an organization in producing output to achieve the goals, vision and mission of the organization that has been planned. The SME performance indicators used in this study are sales growth, profitability, and market share (Fitriati, Purwana, & Buchdadi, 2020).

2.2 Digital Transformation

Digital transformation is a strategy where in its implementation utilizing digital technology to change a pattern in doing business, both in operation and in serving consumers, from several companies that implement digital transformation, usually stakeholders drastically change old ways or patterns that are carried out in the hope of providing better results. In addition, digital transformation is also a must carried out by a company in carrying out a process or agenda in a leadership process in a company. Digital Transformation Indicators According to Iklima Farhani and Harmon Chaniago (2021) explained that there are several indicators of Digital Transformation as follows:

1. Active online presence
   The main characteristic of digital transformation is the change in marketing channels from offline to online or hybrid.
2. Coordinated sales
   The sales process from finding leads, nurturing them, and making transactions that were initially done manually has changed to digital-based and much more coordinated and efficient.
3. Simplification of operations
   Work patterns and business operational activities that were initially manual will change to be simpler with digital-based.
4. Survive because you go online
   Digital transformation is not limited to changing to online, but how through digital transformation businesses develop and maintain their existence.
5. The process of utilizing digital technology
   The use of virtualization technology, mobile computing, cloud computing, the integration of all systems in the organization into something new or new value, such as: ease of transactions, shopping.

2.3 Product Innovation

Innovation is the ability to see things in a different way than usual and new (thinking out of the box) (Grecia & Puspitowati, 2022). Innovation is a way to implement new products and ideas (Lorensa & Hidayah, 2022). It can be concluded that innovation is the ability to apply a company's creativity to solve problems and look for opportunities to improve business performance. With many new products offered by companies in various forms, it makes consumers more interested and choose the products produced by the company so as to produce good business performance (Muhammad, Rida, & Etty, 2020). Based on this description, it can be concluded that innovation is the application of new ideas to goods or services to be sold to the public in order to meet consumer needs and satisfaction and increase economic growth. The product innovation indicators used in this study are product development research, the number of product creations, and company leadership in the new products produced (Muhammad, Rida, & Etty, 2020).

2.4 Research Method

This research is a descriptive research on the Influence of Digital Transformation and Product Innovation on the Performance of SMEs in Medan Tuntungan District. According to Alfaruqi & Susilawati (2022), the quantitative descriptive method aims to describe phenomena, events, symptoms, and occurrences factually and systematically, and accurately. This is due to the difference in respondents' views on each answer in the questionnaire given. The measurement of each variable in this study was carried out using the Likert Scale. Sampling in this study uses the Slovin method with the following formula.

$$n = \frac{N}{1 + Ne^2}$$

N = number of samples
n = sum
population = 520
e = error tolerance = 0.1

From the results of the calculation with the Slovin Method, the number of samples obtained was 226. In sampling, accidental sampling is used, namely sampling by random means.

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3. RESULT AND DISCUSSION

3.1 Normality Test Results

The method used to test normality is to use the Kolmogorov-Smirnov test, where if the significance is >0.05, the residual value is normally distributed and if the significance is <0.05, the residual is not normally distributed. In this study, after conducting a normality test using SPSS 25.0, the following results were obtained:

Table 1 Results of the Normality Test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		226
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	1.84525796
Most Extreme Differences	Absolute	.132
	Positive	.082
	Negative	-.132
Test Statistic		.132
Asymp. Sig. (2-tailed)		.200c

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

Source: Data processing (2023)

1. Based on the results of the normality test with the Kolmogorov-Smirnov method that has been carried out, the results as shown in table 2 can be explained that the significance value is 0.200>0.1 which means that the residual value is normally distributed.

3.2 Heterokedasticity Test Results

The method used to test normality is to use the results of the scatterplot of the heterokedasticity test. The basis for decision-making is that if a definite pattern, such as existing points (points) forms an orderly definite pattern, then heteroscedasticity occurs. If there is no clear pattern, and the points spread below 0 on the Y axis, then there is no heteroscedasticity.

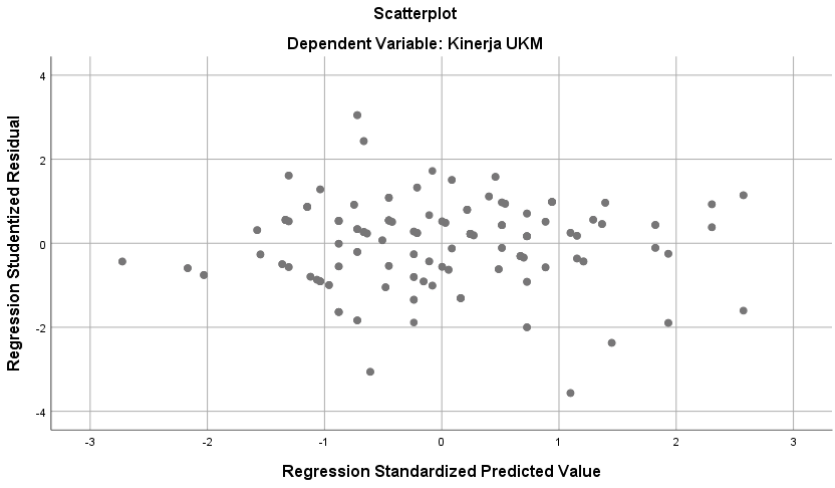

Figure 1 P-P Plot Chart

From figure 1 above, the graph can be seen that the dots are scattered randomly, do not form a clear pattern, and are scattered both above and in the top, the number 0 (zero) on the Y axis, so there is no heteroscedacity.

3.3 Multicollinearity Test Result

According to Ghozali (2018), a multicollinearity test was carried out to test whether the regression model found a correlation between independent variables. To detect the presence or absence of multicollinearity, it can be seen from the value of variance inflation factor (VIF) and tolerance. A regression model that is free from multicollinearity is one that has a VIF value of < 10 and has a tolerance value of >0.1. If the VIF value is > 10 and the tolerance value is <0.1. then multicollinearity occurs. In this study, after conducting a multicollinearity test, the results were obtained as in the table below:

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Table 2. Multicolinnearity Test Result

Coefficients[a]

Model		Collinearity Statistics Tolerance	BRIGHT
1	(Constant)		
	Digital Transformation	.937	1.068
	Product Innovation	.937	1.068

a. Dependent Variable: Kinerja UKM

Based on the results of the multicollinear test that has been carried out using SPSS 25.0 as shown in table 2, it can be explained that the significance value of the tolerance value for the Digital Transformation (X1) variable is 0.937>0.1 and the VIF value is 1.06<10 and the Product Innovation (X2) is 0.937>0.1 and the VIF value is 1.068<10, so it can be concluded that the variables X1 and X2 do not have multicollinearity.

3.4 Partial Test Results (T-Test)

Table 3. T Test Results

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Mr.
1	(Constant)	4.400	1.452		3.031	.003
	Digital Transformation	.489	.050	.421	9.685	.000
	Product Innovation	.552	.043	.558	12.841	.000

a. Dependent Variable: Kinerja UKM

1) The Influence of Digital Transformation (X1) on SME Performance (Y)

The result of the calculation obtained tcount = 9.685 is greater than ttable = 1.285 with sig. 0.000, this means that there is a partial positive influence between the free variable (X1) and the bound variable (Y). The results of the statistical test t support the hypothesis of this study, which is suspected that Digital transformation has a significant positive influence on performance. A positive sign in the beta coefficient indicates a unidirectional relationship, meaning that the higher the level of digital transformation, the more there will be an increase in the performance of SMEs (optimal). In line with the research, Farhani and Chaniago (2021) found that leadership behavior and formality have a significant influence on the use of digital media in the digital transformation of SMEs. This shows that the success of digital transformation depends not only on the technology adopted but also on the leadership and formal structure within the organization. Siregar and Daulay (2024) also emphasized the importance of entrepreneurial leadership which directly and indirectly affects the performance of SMEs through digital transformation.

2) The effect of product innovation (X2) on business performance (Y)

The calculation result obtained tcount = 12.841 is greater than ttable = 1.285 with sig. 0.000, this means that there is a positive and significant influence between the independent variable (X2) and the bound variable (Y). The results of the statistical test t support the hypothesis of this study, which is suspected that product innovation has a positive and partially significant effect on performance. A positive sign in the beta coefficient indicates a one-way relationship, meaning that the higher the quality of product innovation, the better the performance of SMEs. In line with the research, the findings of this study are supported by Hadiyati in Kalil (2020) who found that innovation has the greatest impact on entrepreneurial activities. Simultaneously, creativity and innovation are also able to have a positive and significant influence in efforts to improve the performance of SMEs. As research conducted by Anjaningrum & Sidi (2018); Arifudin (2016) who found that creativity and innovation, both partially and together, have a positive and significant influence on business performance and success.

3.5 Simultaneous Test Results (F-Test)

Table 4. F Test Results

ANOVA

Model		Sum of Squares	df	Mean Square	F	Mr.
1	Regression	1178.663	2	589.332	171.541	.000b
	Residual	766.120	223	3.436		
	Total	1944.783	225			

a. Dependent Variable: Kinerja UKM

b. Predictors: (Constant), Inovasi Produk, Digital Transformation

The results of the F test are a comparison of Fcal 171.541 > Ftable 2.33, so it can be concluded that the variables of Digital Transformation and Product Innovation have a significant effect on the performance of SMEs.

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3.5 R^2 Test Results

Table 4. Coefficient of Determination

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.779a	.606	.603	1.85351	1.672

a. Predictors: (Constant), Inovasi Produk, Digital Transformation
b. Dependent Variable: Kinerja UKM
Source: SPSS Data Processing Results

The determination coefficient is used to determine the contribution of the independent variable to the bound variable. After calculations were carried out through the SPSS Version 25.0 application, an Adjusted R Square of 0.606 was obtained, so the conclusion is that variable X can have an effect of 60% on variable Y and the rest, which is 40 or equal to 40%, the performance of SMEs is influenced by other factors outside this study.

3.6 Multiple Linear Regression Results

Table 5. Multiple Linear Regression Model Estimation

Coefficientsa

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	T	Mr.
1	(Constant)	4.400	1.452		3.031	.003
	Digital Transformation	.489	.050	.421	9.685	.000
	Product Innovation	.552	.043	.558	12.841	.000

a. Dependent Variable: Kinerja UKM
Source: SPSS Data Processing Results

The coefficient table above informs the regression equation model obtained from the constant coefficient and the variable coefficient. From the data that has been presented, a regression equation model is formed as follows:

$Y = \alpha + \beta 1X1 + \beta 2X2$

$Y = 4{,}400 + 0{,}489\ X1 + 0{,}552\ X2$

The results of multiple linear regression analysis that are still in numerical form will be explained as follows:

1. An intercept value of 4,400 means that if the innovation and digital transformation variable is worth 0, then the performance of SMEs is 4,400, so it can be concluded that without the innovation and digital transformation variable, the performance value of SMEs will be worth 4,400
2. The coefficient value of the Regression *Value of the Digital Transformation* variable affects the performance of SMEs by 0.48 or has a positive effect on the performance of SMEs, which means that if the value *of the Digital Transformation variable* increases by one unit while the other variables remain constant, it will result in an increase in the value of the SME performance variable by 0.489. On the other hand, if the SME performance variable decreases by one unit while the other variable remains fixed, it will result in a decrease in the value of the SME performance variable by 0.489.
3. The coefficient value of the innovation variable regression affects the performance of SMEs by 0.552 or has a positive effect on the performance of SMEs, which means that if the value of the innovation variable increases by one unit while the other variables remain fixed, it will result in an increase in the value of the SME performance variable by 0.552. On the other hand, if the innovation variable decreases by one unit while the other variable remains fixed, it will result in a decrease in the value of the SME performance variable by 0.552.

4. CONCLUSION

Based on the analysis carried out on the Influence of Digital Transformation and Innovation on the Performance of SMEs in Medan Tuntungan District, the following conclusions were obtained: (1) Digital Transformation and Product Innovation variables directly have a significant positive influence on SME Performance; (2) The Digital Transformation variable directly has a positive and significant influence on the SME Performance variable; (3) The Product Innovation variable directly has a positive and significant influence on the SME Performance variable.

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