

The Effect of Digitalization, Advertising Attractiveness and Product Variety on Community Purchasing Decisions on MSME Products in Medan City

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ABSTRACT

The failure of existing product variations can be caused by an undeveloped brand image among consumers, lack of consumer confidence, decreased product desirability, and deviation of the wrong product due to incorrect analysis, because many consumers do not know the existing products in meeting consumer needs. This research uses quantitative methods, with descriptive analysis techniques and is explanatory research with a sample of 100 respondents. Data analysis in this study used the SPSS. The results showed that the Sig value to influence digitalization on purchasing decisions is $0.003 < 0.05$ and the tcount value is $3.044 > t_{table} 1.985$, the Sig value to influence the attractiveness of advertising on purchasing decisions is $0.017 < 0.05$ and the tcount value $(2.440) > t_{table} (1.985)$, the Sig value for influencing product variations on purchasing decisions is $0.017 < 0.05$ and the tcount value $(2.435) > t_{table} (1.985)$, it can be stated that product digitalization, attractiveness of advertising, product variety have a positive and significant effect on purchasing decisions

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Introduction

The failure of existing product variations can be caused by an undeveloped brand image among consumers, lack of consumer confidence, decreased product desirability, and incorrect product deviations due to incorrect analysis because many consumers do not know the existing products in meeting consumer needs. In covering the regulation of MSMEs, the final choice in the product is a purchase decision, a purchase decision is a final decision that a consumer has to buy a good or service with various certain considerations. Purchasing decisions made by consumers illustrate how far marketing is in an effort to market a product to consumers. Buchari Alma (2016: 96), suggests that purchasing decisions are consumer decisions that are influenced by financial economics, technology, politics, culture, product, price, location, promotion, physical evidence, people, and process. The other person factor is the main factor if someone who has an important part of thinking that you should buy a cheap product, then your chances of buying an expensive product will decrease. The second factor is unexpected situational factors. Understanding consumer behavior in buying a product will be very useful for MSMEs in determining and developing products to be made.

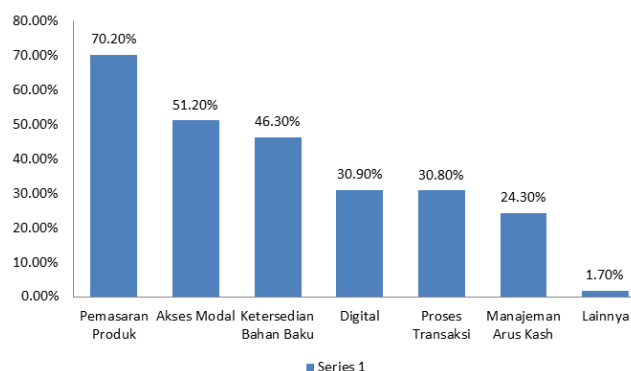


Figure I Constraints of MSMEs

Source : MSME Empowerment Report 2022 (Page 20)

In Figure 1 above shows several obstacles in MSMEs which show 70.20% of MSME constraints on product marketing, MSME players still lack knowledge about product marketing so that products can sell in the market, product marketing can also be influenced by less attractive advertisements so that brand awareness is not created, it can be caused by not matching target consumers and so on. In addition, 51.20% have constraints on access to capital, 46.30% availability of raw materials, 30.90% digital, 30.80% transaction process, 24.30% cash flow management, and 1.70% other constraints.

Literature Review

Table 1. Definition, Operational Indicators of Research Variables

Variables	Definition	Indicator	Scale
Digitalization (X ₁)	Digitalization is made possible by the increased availability of digital data through advances in the creation, transmission, storage and analysis of digital data and has the potential to structure, shape and influence today's world Source : Brennen & Kreiss in Fitriana (2019:108),	1. Knowledge 2. Digitization 3. Virtualization 4. Internetworking 5. Convergence Source : Don Tapscott in Hadion Wijoyo, dkk (2020:7)	Likert
Advertising Attractiveness (X ₂)	The appeal of advertising includes all marketing tools (marketing mix) whose main role is to hold more communication that is persuasive in nature Source : Rangkuti (2018:49-50)	1. Persuading Consumers 2. Remind Consumers 3. Music 4. Visual 5. Viewing Time Source : Djaslim, (2018:123)	Likert
Product Variety (X ₃)	Product variety can be defined as products that have different designs or types and are produced by the company Source : Groover (2017:6)	1. Variety of product brands 2. Variety of product completeness 3. Variety of product sizes 4. Variation in product quality Source : Kotler (2015:358)	Likert
Purchase Decision (Y)	Consumer purchasing decisions are a process where consumers recognize their problems, seek information about certain products or brands Source : Tjiptono (2015:21)	1. As needed 2. Has benefits 3. Accuracy in buying products 4. Repeat purchase Source : Thompson (2016:57)	Likert

Conceptual Framework

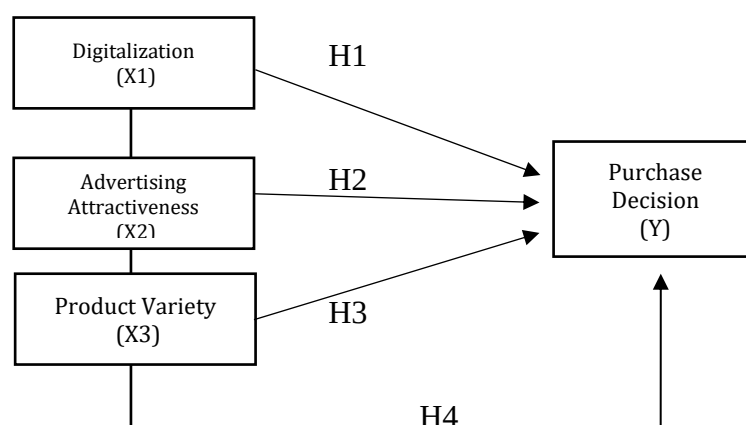


Figure 2. Conceptual Framework

- H₁ : Digitalization has a positive and significant effect on purchasing decisions for MSMEs in Medan City.
 H₂ : Advertising attractiveness has a positive and significant effect on purchasing decisions for MSMEs in Medan City
 H₃ : Product variety has a positive and significant effect on purchasing decisions for MSMEs in Medan City
 H₄ : Digitalization, advertising attractiveness and product variations have a positive and significant effect on purchasing decisions for MSMEs in Medan City

Method

This research uses quantitative methods, with descriptive analysis techniques and is explanatory research which is research with the aim of conducting causal studies between variables that describe a particular phenomenon. According to Nuryaman and Christina (2015: 06) the definition of explanatory research is research whose purpose is to obtain answers about "how" and "why" a phenomenon occurs.

Research Results

Descriptive Statistical Test

Table 1. Descriptive Statistical Test
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Digitalization	100	25	45	35.23	4.072
Advertising Attractiveness	100	26	44	34.85	3.415
Product Variety	100	16	38	27.44	3.937
Purchase Decision	100	20	37	28.11	3.035
Valid N (listwise)	100				

Source: Data Processed by Researchers 2023

In the descriptive statistical analysis, a table has been displayed that has been processed in SPSS, in the table there are already digitalization variables, advertising attractiveness, product variations, and the following purchasing decisions are explained from the analysis results:

1. In this analysis conducted in Medan Petisah District with 100 population samples, the value of the digitalization variable has been displayed with a minimum value of 25, maximum 45, mean 35.23, and std.deviation of 4.072.
2. In the analysis conducted in Medan Petisah District with 100 population samples, the value of the advertising attractiveness variable has been displayed with a minimum value of 26, maximum 44, mean 34.85, and std.deviation of 3.415.
3. In the analysis conducted in Medan Petisah District with 100 population samples, the value of the product variety variable has been displayed with a minimum value of 16, maximum 38, mean 27.44, and std.deviation of 3.937.
4. In this analysis conducted in Medan Petisah District with 100 population samples, it displays the value of the purchasing decision variable with a minimum value of 20, maximum 37, mean 28.11, and std.deviation of 3.035.

Classical Assumption Test Results

Normality Test

Histogram Graph

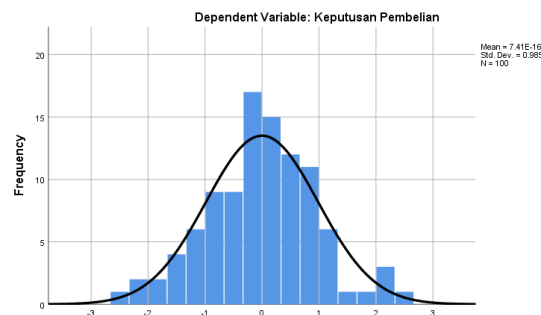


Figure 3. Histogram

Source: Data Processed by Researchers 2023

In Figure 3. Histogram above the data shows a real curve that tends to be symmetrical and spread, we can see that the data shows a normal distribution, and the regression model has met the assumption of normality.

Normal Probability Plot Graph

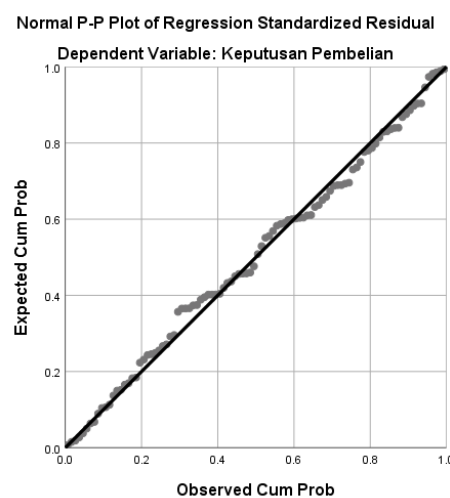


Figure 4. Normality P-Plot Graph

Source: Data Processed by Researchers 2023

In Figure 4, Normality P-Plot above, we can see that the data is spread around the diagonal line, so it can be stated that the data distribution can be declared normal.

Table 2. Analysis Statistics Kolmogorov-Smirnov
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		100
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	2.77209497
Most Extreme Differences	Absolute	.065
	Positive	.052

	Negative	-.065
Test Statistic		.065
Asymp. Sig. (2-tailed)		.200 ^{c,d}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Source: Data Processed by Researchers 2023

Based on the results of the Kolmogorov-Smirnov test that has been carried out, the Asymp. Sig which has a value of $0.200 > 0.05$. This can show that the data is normally distributed and regression can be used to predict the dependent variable purchasing decisions according to the input of independent variables, namely digitalization, advertising attractiveness, product variations.

Multicollinearity Test

Table 3. Multicollinearity Test Coefficients^a

Model		t	Sig.	Collinearity Statistics	
				Tolerance	VIF
1	(Constant)	1.924	.057		
	Digitalization	3.044	.003	.986	1.014
	Advertising Attractiveness	2.440	.017	.989	1.012
	Product Variety	2.435	.017	.998	1.002

a. Dependent Variable: Purchase Decision

Source: Data Processed by Researchers 2023

In Table 3 above, we can see that the tolerance value displayed on the digitalization variable, advertising attractiveness, and product variation is 0.986, 0.989, and 0.998 respectively greater than 0.10, while the VIF value of the digitalization variable (X1) is 1.014, the advertising attractiveness variable (X2) is 1.012, and the product variation variable (X3) is 1.002 smaller than 10, so the three independent variables do not have multicollinearity disorders. In the multicollinearity test, if the VIF value is < 10 , it can be stated that there is no multicollinearity disorder, otherwise also if the VIF value > 10 there is a multicollinearity disorder.

Heteroscedasticity Test Scatterplot Test

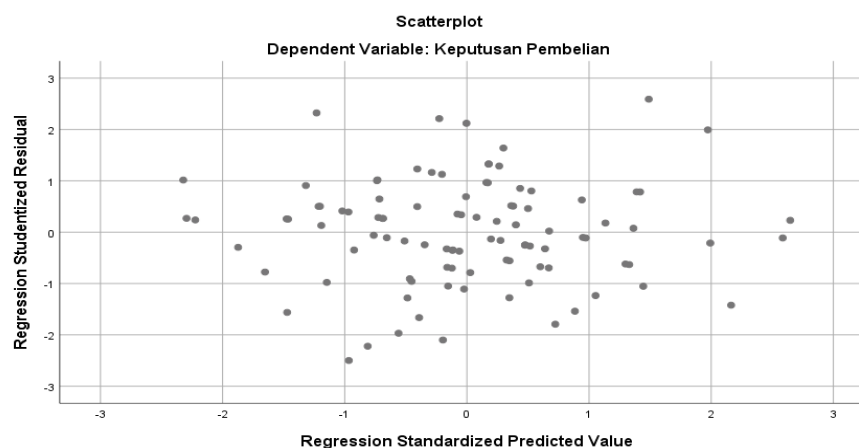


Figure 5. Scatterplot

Source: Data Processed by Researchers 2023

In Figure 5 above displays an image of the heteroscedasticity test on the dependent variable, namely product sales, showing that the points spread randomly and spread both above and below the number 0 on the Y axis, it can be concluded that there is no heteroscedasticity in the regression model.

Glesjer Test

Table 4. Glesjer Test Coefficients^a

Model		t	Sig.	Collinearity Statistics	
				Tolerance	VIF
1	(Constant)	1.005	.317		
	Digitalization	.397	.692	.986	1.014
	Advertising Attractiveness	-.822	.413	.989	1.012
	Product Variety	.164	.870	.998	1.002

a. Dependent Variable: ABS

Source: Data Processed by Researchers 2023

Based on Table 4 above shows the results of the Glesjer test that the sig value on digitalization is $0.692 > 0.05$, the sig value on advertising attractiveness is $0.413 > 0.05$, and the sig value on product variety is $0.870 > 0.05$. We can say that the Glesjer test did not find heteroscedasticity but homoscedasticity.

Data Analysis Results Multiple Linear Analysis

Table 5. Multiple Linear Analysis Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients Beta
		B	Std. Error	
1	(Constant)	8.714	4.530	
	Digitalization	.213	.070	.286
	Advertising Attractiveness	.203	.083	.229
	Product Variety	.175	.072	.227

a. Dependent Variable: Purchase Decision

Source: Data Processed by Researchers 2023

In Table 5 above, it displays a table of test results from multiple linear regression analysis, the multiple linear regression equation is as follows:

$$Y = 8.714 + 0.213 X_1 + 0.203 X_2 + 0.175 X_3$$

- The table above shows the constant value of the test results of multiple linear regression analysis which shows a value of 8,714, which means that if digitalization, advertising attractiveness, and product variety are equal to zero (0), the product purchase decision decreases.
- The table above shows that the variable value of digitalization on purchasing decisions has an effect of 0.213, meaning that it has a positive effect in accordance with hypothesis 1, where changes in the product price variable affect the purchasing decision variable by 0.213 units.
- The table above shows the variable value of advertising attractiveness on purchasing decisions has an effect of 0.203, meaning that it has a positive effect in accordance with hypothesis 2, where changes in the advertising attractiveness variable affect the purchasing decision variable by 0.203 units.
- The table above shows the variable value of product variations on purchasing decisions has an effect of 0.175, meaning that it has a positive effect in accordance with hypothesis 3, where changes in product variation variables affect purchasing decision variables by 0.175 units.

Determinant Coefficient

**Table 6. Coefficient of Determination
Model Summary^b**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.407 ^a	.166	.140	2.815

a. Predictors: (Constant), Product Variety, Advertising Attractiveness, Digitalization

b. Dependent Variable: Purchase Decision

Source: Data Processed by Researchers 2023

Table 6 above shows the results of the coefficient of determination test which shows the coefficient of determination (Adjusted R Square) of 0.140. This means that selection is influenced by the variables of digitalization, advertising attractiveness, and product variety by 14%, while the remaining 86% is explained by other factors outside the study.

Hypothesis Test Simultaneous Test (F Test)

Table 7. Simultaneous Test (F Test)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	151.023	3	50.341	6.352	.001 ^b
	Residual	760.767	96	7.925		
	Total	911.790	99			

a. Dependent Variable: Purchase Decision

Source: Data Processed by Researchers 2023

Table 7 above shows the results of the simultaneous test (F test), based on the test results, the Fcount value (6,352) > Ftable (2.70), this indicates that the research results accept the hypothesis, it can be concluded that there is an effect of digitalization, advertising attractiveness, and product variations simultaneously on purchasing decisions.

Partial Test (t-test)

**Table 8. Partial Test (t-test)
Coefficients^a**

Model		t	Sig.	Collinearity Statistics	
				Tolerance	VIF
1	(Constant)	1.924	.057		
	Digitalization	3.044	.003	.986	1.014
	Advertising Attractiveness	2.440	.017	.989	1.012
	Product Variety	2.435	.017	.998	1.002

a. Dependent Variable : Purchase Decision

Source: Data Processed by Researchers 2023

Ttable = $(\alpha/2 ; n-k-1)$
 = $(0,05/2 ; 100 - 4 - 1)$
 = $(0,025 ; 95) = 1.985$

1. Testing the First Hypothesis (H1)
It is known that the Sig value to influence digitalization on purchasing decisions is $0.003 < 0.05$ and the tcount value is $3.044 > ttable 1.985$, so it can be stated that digitalization has a positive and significant effect on purchasing decisions.
2. Second Hypothesis Testing (H2)

It is known that the Sig value to influence the attractiveness of advertising on purchasing decisions is $0.017 < 0.05$ and the tcount value $(2.440) > t_{table} (1.985)$, it can be stated that advertising attractiveness has a positive and significant effect on purchasing decisions.

3. Third Hypothesis Testing (H3)

It is known that the Sig value for influencing product variations on purchasing decisions is $0.017 < 0.05$ and the tcount value $(2.435) > t_{table} (1.985)$, it can be stated that product variations have a positive and significant effect on purchasing decisions.

Discussion

The Effect of Digitalization on Purchasing Decisions in MSMEs in Medan City

The results of this study show data that digitalization on purchasing decisions is $0.003 < 0.05$ and the tcount value $(3.044) > t_{table} 1.985$, so it can be stated that digitalization has a positive and significant effect on purchasing decisions. The results of this study are also supported by Marpaung, Fenny Krisna; Sibarani, Hendra Jonathan, 2018, in the results of research conducted proving that there is an effect of capacity building on SME growth. This can be seen from the partial test results (t-test) where the tcount $> t_{table}$ value $(8.962 > 1.979)$ and a significance value of $0.000 < 0.05$, so that the research results reject H_0 and accept H_a . According to Prisma Miardi Putri & R.A.Marlien (2022) in their research on Digital marketing has a positive and significant effect on online purchasing decisions. In the empirical test, the results of the regression analysis of the digital marketing variable have a significance value of $0.016 < 0.05$. This shows that the better digital marketing will increase online purchasing decisions.

The Effect of Advertising Attractiveness on Purchasing Decisions at MSMEs in Medan City

The results of this study show data that the significant value of advertising attractiveness on purchasing decisions is $0.003 < 0.05$ and the tcount value $(3.044) > t_{table} 1.985$, so it can be stated that advertising attractiveness has a positive and significant effect on purchasing decisions. This research is also in line with Prajanu Pitamakoro (2018) which states that advertising attractiveness has a positive effect on purchasing decisions for TOP Coffee instant ground coffee. The statistical results of the t test for the advertising attractiveness variable are obtained tcount value of 3.034 with a significance value of 0.003 smaller than 0.05 ($0.003 < 0.05$), and the regression coefficient has a positive value of 0.265, so the hypothesis states that advertising attractiveness has a positive influence on purchasing decisions.

The Effect of Product Variety on Purchasing Decisions at MSMEs in Medan City

The results of this study show data that the significant value of product variations on purchasing decisions is $0.003 < 0.05$ and the tcount value is $3.044 > t_{table} 1.985$, so it can be stated that product variations have a positive and significant effect on purchasing decisions. This research is in line with the research of Intan Aisyah Marlin (2020) which found the results that the Product Variation variable has a positive and partially significant effect on purchasing decisions for paving blocks at PT. Multi Guna Precast Mandiri in Rimbo Panjang. The effect of product variations and promotions on purchasing decisions for paving blocks at PT Multi Guna Precast Mandiri in Rimbo Panjang is indicated by a coefficient of determination of 0.463. This shows that 46.3% of purchasing decisions are influenced by product variations and promotions, and the remaining 0.537 or 53.7% is influenced by other variables not used in this study.

The Effect of Digitalization, Advertising Attractiveness and Product Variety on Community Purchasing Decisions on MSME Products in Medan City

The research above has displayed the results of the determination coefficient test which shows the coefficient of determination (Adjusted R Square) of 0.140. This means that selection is influenced by the variables of digitalization, advertising attractiveness, and product variety by 14%. While the rest is 86%. The rest of the results of this coefficient of determination can be explained by other factors outside the study.

Conclusion

The results of the research that has been done can be drawn conclusions, namely:

1. Digitalization has a positive and significant effect on purchasing decisions on MSME products in Medan City.
2. Advertising attractiveness has a positive and significant effect on purchasing decisions on MSME products in Medan City.
3. Product variety has a positive and significant effect on purchasing decisions on MSME products in Medan City.
4. Digitalization, advertising attractiveness, and product variations simultaneously have a positive and significant effect on purchasing decisions on MSME products in Medan City.

Suggestions

1. MSMEs in Medan City must pay attention to the products to be sold utilizing technology, advertise products with attractiveness to bind consumers, and also pay attention to product variations so that consumers can choose according to the needs they want, so that purchasing decisions will continue to increase.
2. For future researchers, it is recommended that they conduct and develop this research with other variables that can influence purchasing decisions because there is an influence of other factors that influence purchasing decisions at MSMEs in Medan City by 86%.

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