

The Influence of *Online Transactions (E-Commerce)*, Length of Business and Capital on *Msmes Income in Binjai City (Msmes in Binjai Kota Sub-District)*

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Abstract

This research aims to determine the effect of online transactions (e-commerce), length of business and capital on the income of MSMEs in Binjai City (MSMEs in Binjai Kota District). The population in this study is all MSMEs registered with the cooperative department, small and medium enterprises that totaling 221 MSME actors. The sampling technique used in this research was Non Probability Sampling using Purposive Sampling so that there were 69 samples. The data collection technique uses a questionnaire. Data processing was carried out using SPSS 26 software. The approach used in this research is a quantitative research method, with data analysis consisting of descriptive statistical tests, data quality tests, classical assumption tests, multiple linear regression analysis, and hypothesis testing. Based on the partial test, it is known that the significance value is $0.000 < 0.05$. It can be concluded that the variables of online transactions (e-commerce), length of business, and capital simultaneously influence the income variable.

Keywords: Online Transactions (E-Commerce), Business Length, Capital, Income

Introduction

Micro, small and medium enterprises (MSMEs) revenue is the amount of money received by a company from an activity it carries out, most of these activities are product sales activities or sales of services to consumers (Alifa, 2020). The term revenue in the business world is not a foreign thing, because whatever business is engaged in, the main goal is to generate income. Large or small businesses are always looking for revenue so that they can support optimal financial performance (Handoyo, 2019).

The criteria for Micro, Small and Medium Enterprises (MSMEs) have been regulated by Law No. 20 of 2008. The definition of MSMEs is productive business opportunities owned by individuals or individual business entities that meet the criteria of micro businesses as regulated by law. Small businesses are productive economic business opportunities that stand alone, carried out by individuals or business entities that are not subsidiaries or branches of companies that are owned, controlled, or are part of either directly or indirectly from medium or large businesses that meet the criteria for small businesses as referred to in the law (Tesa, 2020).

Binjai City is one of the cities that has high purchasing power, and MSMEs have great prospects for development (Suciati, 2022). MSMEs in Binjai Kota District consist of 3 sectors, namely the food and beverage sector, the handicraft sector, and the service sector. In 2020-2023, MSME players increased again, the increase was driven by the role of the Small and Medium Enterprises Cooperative Office in empowering MSMEs (*Benuanews.com*, 2023). The increase in the number of MSMEs means that there are high business competitors, so MSMEs need to increase innovation so that their businesses can continue to run, one of which is by using the help of *digital* technology.

Digital technology can encourage MSMEs to open entrepreneurs easily with various benefits and conveniences obtained. Lack of knowledge about utilizing technology has a less than

optimal impact on the development of MSMEs (Usman, 2022). From the limitations felt by MSME actors, there are still many MSME actors who do not maximize the income and benefits of selling goods *online* or called *E-commerce*.

Thus the definition of *E-commerce* is the process of promoting, buying and marketing products through electronic media or the internet that can be done without having to meet between sellers and buyers. According to (Tesa, 2020) Types of Transactions in *E-commerce* include Business-to-Business. (B2B), Business-to-Consumer (B2C), Consumer-to-Business (C2B), Consumer-to-Consumer (C2C). Based on this, it proves that the ability of *digital* technology, especially in *online* transactions, can affect the income of MSMEs. This is in line with research conducted by Helmalia and Afrinawati (2018) which shows that *online* transactions (*e-commerce*) have a positive and significant effect on MSME income. Meanwhile, research conducted by Tesa (2020) shows that *online* transactions (*e-commerce*) have no effect on MSME income.

In addition to *online* transactions (*e-commerce*), another factor that affects MSME income is the length of business. An entrepreneur who has been in business for a long time does not necessarily get a larger daily income than an entrepreneur who has just entered the business world. Entrepreneurs who have been involved for a long time are usually less able to optimize sales, on the contrary, entrepreneurs with a length of business that has not been so long are able to optimize sales so as to generate high sales (Tesa, 2020). Based on this, it proves that the length of business affects the income of MSMEs. This is in line with research conducted by Usman (2022) which shows that length of business has a positive and significant effect on MSME income. Meanwhile, research conducted by Tesa (2020) shows that length of business has no effect on MSME income.

Capital is also one of the factors that has an important role in MSME income because capital will affect the smooth running of a business so that it affects the income obtained (Tesa, 2020). Based on this, it proves that capital affects MSME income. This is in line with research conducted by Polandos and Engka (2019) which shows that capital has a positive and significant effect on MSME income. Meanwhile, research conducted by Halim (2020) shows that capital has no effect on MSME income.

Research Methods

The type of research used in this research is quantitative research. The type of research data used is primary data obtained from respondents' answers filled in by MSME actors through questionnaires. The aim is to prove whether there is an effect of online transactions (*e-commerce*), capital, and length of business on MSME income in Binjai City after which the data is processed using SPSS version 26 statistical software. The research object chosen as the research location is MSME actors in Binjai City, located in Binjai Kota District. Researchers determine group characteristics depending on the focus to be studied, such as people, incidents or materials. The population used in this study were all MSME players who were traders in Binjai Kota sub-district, totaling 221 traders. Data collection technique is one of the ways that researchers can obtain data and information from respondents in accordance with the scope of research. The data collection technique used by researchers is to use a questionnaire, namely a data collection technique that is carried out by distributing several lists of written questions that will be given to respondents, then the results of the respondents' answers are processed using SPSS 26 (Statistical Product and Service Solution) which will become data that will be tested for influence using a Likert scale.

Results and Discussion Descriptive Statistics

Descriptive analysis method is an analytical method in which data are collected, classified, analyzed, and interpreted objectively so as to provide information and an overview of the variables discussed. The results of descriptive analysis of each research variable are presented in Table 1.

Table 1. Descriptive Statistical Test**Descriptive Statistics**

	N	Minimu m	Maximu m	Mean	Std. Deviation
Transaksi <i>online</i> (<i>E-commerce</i>)	69	21.00	35.00	27.2899	3.96715
Lama Usaha	69	19.00	25.00	22.1594	1.76254
Modal	69	24.00	35.00	30.1739	2.75444
Pendapatan	69	24.00	35.00	29.0580	2.77533
Valid N (<i>listwise</i>)	69				

Source: SPSS processed data.

Based on the results of the descriptive statistical data above, it can be concluded as follows:

1. For variable X1, namely *online* transactions (*E-commerce*) has a minimum value of 21 and a maximum value of 35, with an average of 27.28 and a standard deviation of 3.967. In this case it is concluded that the descriptive data on the *online* Transactions (*E-commerce*) variable is good because the mean is greater than the standard deviation.
2. For variable X2, namely Length of Business, the minimum value is 19 and the maximum value is 25, with an average of 22.15 and a standard deviation of 1.762. In this case it is concluded that the descriptive data on the Length of Business variable is good because the mean is greater than the standard deviation.
3. For variable X3, namely Capital, it has a minimum value of 24 and a maximum value of 35, with an average of 30.17 and a standard deviation of 2.754. In this case it is concluded that the descriptive data on the Capital variable is good because the mean is greater than the standard deviation.
4. For variable X4, namely income, it has a minimum value of 24 and a maximum value of 35, with an average of 29.05 and a standard deviation of 2.775. In this case it is concluded that the descriptive data on the Income variable is good because the mean is greater than the standard deviation.

Normality Test Results

The normality test used in this study is the *Kolmogorov Smirnov test*. Decision making in the *Kolmogorov-Smirnov Test* is if the data shows a significant value greater than 0.05, then the data can be said to be normally distributed. The following are the results of the *Kolmogorov-Smirnov Test*.

Table 2. Kolmogorov-Smirnov Test**One-Sample Kolmogorov-Smirnov Test**

		<i>Unstandardized Residual</i>
N		69
<i>Normal Parameters^{a,b}</i>	<i>Mean</i>	.0000000
	<i>Std. Deviation</i>	2.28227186
<i>Most Extreme Differences</i>	<i>Absolute</i>	.065
	<i>Positive</i>	.036
	<i>Negative</i>	-.065
<i>Test Statistic</i>		.065

<i>Asymp. Sig. (2-tailed)</i>		.200 ^{c,d}
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- a. *Test distribution is Normal*
- b. *Calculated from data.*
- c. *Lilliefors Significance Correction.*
- d. *This is a lower bound of the true significance.*

Source: SPSS processed data.

Based on the results of the normality test in table 2 using the one sample Kolmogorov-smirnov test method, it shows that the residual value of the dependent variable and the independent variable on the number of samples (N) of 69 is 0.200. Thus, the data from this study are normally distributed because the residual value is greater than the significance of 0.05.

Multicollinearity Test Results

According to Ghozali (2018) this test aims to test whether the regression model found a correlation between independent variables. In a good regression model, there should be no correlation between independent variables. To detect the presence or absence of multicollinearity in the regression model, it can be seen from the *tolerance* value or *variance inflation factor* (VIF). To detect the presence or absence of multicollinearity in this model is as follows:

Table 3. Multicollinearity Test Results

Coefficientsa

Model		<i>Collinearity Statistics</i>	
		<i>Tolerance</i>	<i>VIF</i>
1	<i>(Constant)</i>		
	<i>Online transactions (E-commerce)</i>	.846	1.183
	<i>Length of business</i>	.796	1.256
	<i>Capital</i>	.932	1.073

- a. *Dependent Variable: Revenue*

Based on Table 3, it can be seen that the Tolerance value of the *online* transaction variable (*E-commerce*) is 0.846, Business Duration is 0.796, and Capital is 0.932. The VIF value of the *online transaction variable (E-commerce)* is 1,183, length of business is 1,256 and capital is 1,073. Thus, it can be concluded that the *Tolerance* value of the *Perceived ease of use, perceived usefulness and Perceived risk variables* is more than 0.1 and for the VIF value is not less than 10, so that in this regression model there are no symptoms of multicollinearity.

Heteroscedasticity Test Results

The heteroscedasticity test is carried out by regressing the independent variable on the absolute value of the residual. According to Tesa (2020), one way to measure whether or not there are symptoms of heteroscedasticity can be seen from the *scatterplot* graph, where if the data distribution pattern widens, there is no problem with the heteroscedasticity test results. The following are the results of the heteroscedasticity test.

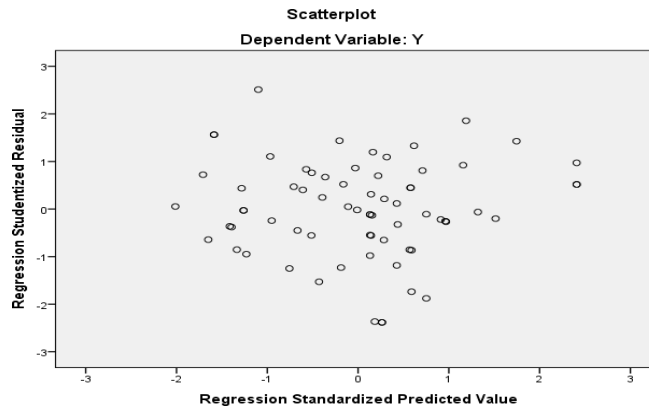


Figure 1. Heteroscedasticity Test Results

Based on Figure 1.1, it can be seen that the points spread above and below the number 0 on the Y axis, so it can be concluded that there is no heteroscedasticity in the regression model.

Multiple Linear Regression Analysis Test Results

Multiple linear regression analysis to test hypotheses about the relationship between two or more independent variables together with one dependent variable. In this study using one independent variable and one dependent variable. The following are the results of multiple linear regression analysis in table 4 as follows.

Table 4. Multiple Linear Regression Analysis Test

Coefficients^a

Unstandardized Coefficients

Model	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>
	B	Std. Error	Beta
(Constant)	12.650	4.264	
Online transactions (E-commerce) (X1)	.349	.078	.499
Length of business (X2)	-.017	.180	-.011
Capital (X3)	.241	.106	.239

a. *Dependent Variable: Income (Y)*

Judging from table 4, the multiple linear regression equation model in this study is:
 $Y = 12.650 + 0.349 X1 + (-0.017) X2 + 0.241 X3 + e$

Based on the above equation, it can be described as follows:

1. The constant value of 12,650 indicates that if there is an influence of the independent variables *Online transactions (E-commerce)* (X1), Length of Business (X2), and Capital (X3), then the dependent variable (Y) will be 12,650.
2. The coefficient value of X1 is 0.349, indicating that, if there is an increase in *online transactions (E-commerce)* by 1 unit (1%), it will increase revenue by 0.349 (34.9%), if the variable is considered constant.
3. The coefficient value of X2 is -0.017, indicating that every 1 unit increase (1%) of X1 will affect revenue by -0.017. Because it is negative, the Length of Business (X2) to Income (Y) is mutually opposite, so that if the value of Income (Y) increases, the value of Length of Business

(X2) will decrease, and vice versa.

- The coefficient value of X3 is 0.241, indicating that, if there is an increase in capital by 1 unit (1%), it will increase revenue by 0.241 (24.1%), if the variable is considered constant.

Hypothesis Test Results The result of t test (Partial)

The t test is used to determine the effect between variables, namely the independent variable on the dependent variable. The independent variables used in this study are institutional ownership, managerial ownership and profitability while the dependent variable used in this study is profitability. The hypothesis results in this study are as follows.

Table 5. T Test Results (Partial)

Coefficientsa

Model		t	Sig.
1	(Constant)	2.967	.004
	Online transactions (E-commerce)	4.495	.000
	Length of business	-.092	.927
	Capital	2.259	.027

Source: SPSS processed data.

The number of samples (n) = 69, the number of model parameters (k) = 3, df = (n-k) 69-3 = 66, then at an error level of $\alpha = 0.05$, the T-table = 1.997 is obtained.

Based on the results of the T-test in Table 5, the result is:

- The *online transaction (E-commerce)* variable (X1) has a coefficient of 0.349 with a positive value, with a T-count (4.495) > t-table (1.997) and significance (0.000) < α (0.05). Thus, the *online transaction variable (E-commerce)* has a positive and significant effect on revenue.
- The variable Length of Business (X2) has a coefficient of -0.017 with a negative value, with a T-count (-0.092) < t-table (1.997) and significance (0.927) > α (0.05). Thus, the Length of Business variable has no effect on Revenue.
- The Capital variable (X3) has a coefficient of 0.241 with a positive value, with T-count (2.259) > t-table (1.997) and significance (0.027) < α (0.05). Thus, the Capital variable has a positive and significant effect on Revenue.

F Test Results (Simultaneous)

The f test is used to determine all independent variables on the dependent variable. The independent variable used in this study is tax avoidance while the dependent variable used in this study is inventory turnover, fixed asset turnover, and cash turnover. The hypothesis results in this study are as follows.

Table 6. Test Results f (Simultaneous)

ANOVAa

Model		Sum Squares	df	Mean Square	F	Sig.
1	Regression	169.572	3	56.524	10.373	.000b
	Residuals	354.196	65	5.449		
	Total	523.768	68			

a. *Dependent Variable: Y*

b. *Predictors: (Constant), Capital, Online transactions (E-commerce), Length of Business*

Source: Data processed by SPSS (2024).

Based on table 6 above, it can be concluded that the significance value of $0.00 > 0.05$, it concludes that the variables of *online transactions (e-commerce)*, length of business and capital have a significant and simultaneous effect on the income variable.

Determination Test Results (R)²

The coefficient of determination (R^2) is used to measure how far the model's ability to explain the independent variable. This test can be seen from the probability of the *Adjusted R Square* value in the research that has been done, namely in table 7 below.

Table 7. Determination Test Results R^2

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.569 ^a	.324	.293	2.334

a. *Predictors: (Constant), Capital, Online transactions (E-commerce), Length of Business*

Source: Data processed by SPSS (2024).

Based on table 8, it is known that the Adjusted R Square value is 0.293, it can be concluded that the amount of influence of the income variable on the *online transaction variable (e-commerce)*, length of business and capital is 29.3% and the remaining 70.7%.

Discussion

The Effect of Online Transactions (E-commerce) on MSME Revenue

The *online transaction (E-commerce)* variable (X_1) has a coefficient of 0.349 with a positive value, with a t-count $> t$ -table of $4.495 > 1.997$ and a significant value of $0.000 < 0.05$, then H_1 is accepted. Thus, the *online transaction variable (E-commerce)* has a positive and significant effect on revenue.

Based on partial analysis, it is revealed that *online transactions (E-commerce)* have a significant positive impact on MSME revenues. This indicates that *online transactions (e-commerce)* are promotional activities, buying and marketing products through electronic media or the internet that can be done without having to meet between sellers and buyers. By selling products or services *online*, MSMEs can reach customers in areas that were previously difficult to reach physically. Through *e-commerce platforms*, MSMEs can use social media, *online advertising*, and search

engine optimization to expand their marketing reach. *Online* transactions can reduce MSMEs' operational costs. By operating *online*, MSMEs can reduce costs associated with business premises rent, product stock, and headcount. These cost reductions can increase profit margins and, ultimately, MSME revenues. Based on this, it proves that the ability of *digital* technology, especially in *online* transactions (*e-commerce*), can affect the income of MSMEs.

This research is the same as that described in previous research by Helmalia and Afrinawati (2018) which states that the results of their research have a positive and significant relationship between *online* transactions (*e-commerce*) and income. Thus the first hypothesis, namely "*Online* transactions (*e-commerce*) have a positive and significant effect on MSME income in Binjai City (MSMEs in Binjai Kota District)" is accepted.

The Effect of Length of Business on MSME Income

The variable Length of Business (X2) has a coefficient of -0.017 with a negative value, with a t-count < t-table, namely $-0.092 < 1.997$ and a significant value of $0.927 > 0.05$, so H2 is rejected. Thus, the Length of Business variable has no effect on Revenue.

From the data obtained from respondents, the average MSME has only been running for approximately 5 years so that the length of business has no effect because even though MSMEs that have just started opening their businesses do not have much experience, they already have knowledge about matters in business obtained from imitating and observing the surrounding environment. In addition, MSMEs that are new to trading are more likely to accept changes so that they are able to survive and compete with other MSMEs. From the answers of respondents answering the establishment of a business and experience in doing business, it is smaller who agree with those who answer disagree. This is because many business actors have just started their business but the location they are in is a strategic business point and prices are cheaper.

This research is in line with research (Setiaji & Fatuniah, 2018) which states that length of business has no effect on income. So that the second hypothesis, namely "Length of business has a positive effect on increasing MSME income in Binjai City (MSMEs in Binjai Kota District)" is rejected.

The Effect of Capital on MSME Income

The Capital variable (X3) has a coefficient of 0.241 with a positive value, with a t-count > t-table, namely $2.259 > 1.997$ and a significant value of $0.027 < 0.05$, so H3 is accepted. Thus, the capital variable has a positive and significant effect on income.

From the results of the analysis, MSME actors need to show capital in conducting business, if entrepreneurs increase business capital and increase the quantity and type of goods sold, the entrepreneur's income will increase. Conversely, if the entrepreneur reduces his business capital, his income will decrease. This needs to be considered in relation to the existence and development of the businesses of MSME actors in order to survive in conditions of increasing business competition.

This research is the same as that described in previous research by Polandos, Engka, & Tolosang which shows that the results of this study have a positive and significant relationship between capital and income. So that the third hypothesis, namely "Capital has a positive effect on increasing MSME income in Binjai City (MSMEs in Binjai Kota District)" is accepted.

The Effect of *Online* Transactions (*E-commerce*), Length of Business and Capital on MSME Income

In the influence of *online* transactions (*e-commerce*) (X1), length of business (X2) and capital (X3) on income (Y), by doing the F test which can be seen from the table (ANOVA) that $F_{hitung} > F_{tabel}$ with a significance of 0.000. Therefore, it can be explained that of the three variables

between the influence of *online* transactions (*e-commerce*) (X1), length of business (X2) and capital (X3), simultaneously have a significant positive effect on income (Y), then H4 is accepted. *Online* transactions, capital, and length of business affect income because of the 69 MSMEs, most MSMEs in Binjai City have large capital so that they support business income. The results of the descriptive analysis of the income variable show that overall the average business actors have low income, namely in one month below IDR 10,000,000. This means that MSMEs need to maintain and increase their income, so as not to experience continuous losses and be able to meet their business needs. This research is in line with research (Fadhlani, 2017) entitled the effect of working capital, length of business, working hours and business location on monza income in the Simalingkar market. So that the fourth hypothesis, namely "*Online* transactions, capital, and length of business have a positive effect on increasing the income of MSMEs in Binjai City (MSMEs in Binjai Kota District)" is accepted.

Conclusions

Based on the results and discussion of the research, the following conclusions can be drawn:

1. *Online* transactions have a positive effect on revenue, many MSMEs have used *online* transactions such as payment transactions through qris, ovo, gopay, etc. and also many MSMEs already understand the use of technology to market products.
2. Length of Business has no effect on Revenue, because many umkm are just getting into business with capital observing the surrounding environment so that the longer a business runs does not guarantee that MSME actors have more experience and business knowledge.
3. Capital has a significant positive effect on increasing income, because if entrepreneurs increase business capital and increase the quantity and type of goods sold, the entrepreneur's income will increase.
4. *Online* transactions (*E-Commerce*), length of business, and capital simultaneously affect the income of MSMEs in Binjai City (MSMEs in Binjai Kota District).

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