


An Analysis Of The Influence Of E-Commerce And The Rupiah Exchange Rate On Indonesia's Economic Growth

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ArticleInfo	ABSTRACT
Keywords: E-Commerce, Rupiah Exchange Rate, Economic Growth.	This research aims to analyze the influence of E-Commerce and the Rupiah Exchange Rate on Indonesia's Economic Growth in the 2019-2023 period. Using quantitative descriptive research methods with timeseries secondary data analyzed via SPSS software, this research tests three main hypotheses: the significant influence of E-Commerce on economic growth, the significant influence of the Rupiah Exchange Rate on economic growth, and the simultaneous influence of E-Commerce and the Rupiah Exchange Rate to economic growth. The analysis results show that individually, E-Commerce does not have a significant influence on economic growth, with a sig value of 0.689 (>0.05). Meanwhile, the Rupiah Exchange Rate shows a significant and negative influence on economic growth, with a sig value of 0.022 (<0.05), which means that Rupiah depreciation tends to reduce economic growth. Simultaneously, these two variables show a significant influence on economic growth with a sig value of 0.038 (<0.05) and an R^2 of 0.962, indicating that the combination of these two variables can explain 96.2% of the variability in Indonesia's economic growth.
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INTRODUCTION

Currently, technology has become a vital necessity in social life, and almost everyone uses it to access information. Technology makes various activities easier, such as searching, saving and creating things easily. In the development of civilization, humans have experienced a transition from the agricultural era to the industrial era, and are now entering the information era. This triggers the emergence of a new economic structure which is the result of developments in information and communication technology. The three elements that differentiate the new economic structure from the traditional economy are ideas, information, and relationships. Correspondingly, neo-classical economic theory and endogenous growth began to consider the role of technology and knowledge as important factors in economic growth.(Sihombing, Pardede, Sihombing, & Dewantara, 2022).

Economic growth as a process of increasing output over time is an important indicator for measuring the success of a country's development (Todaro, 2005). With successful economic growth, a country can improve the standard of living and make people

prosperous. Economic growth can also be measured by the amount of output produced by a country as a source of national income. The indicator used to determine or measure economic growth is Gross Domestic Product (GDP). When GDP increases, economic growth also increases and vice versa. Therefore, planned and regular policies from the government are needed so that economic growth increases at a rate from time to time taking into account the inflation rate. This is because the higher the level of economic growth with a stable inflation rate, the faster the process of increasing the country's national output, so that development and progress will be better for the future.

Sixun Liu (2013) researched the effects of E-Commerce on economic growth. From the results of this research in the long term, GDP and other variables are positively correlated as expected, indicating that the increase in the number of CN domains, names, international bandwidth, number of internet users, online shopping numbers, online advertising scale, as well as the number of websites all play a role positive GDP growth, and these variables represent the level of development of E-Commerce in consumption, investment, government purchases and net exports respectively, so that it can be concluded that E-Commerce is indeed a driver of the domestic economy. However, this research still has shortcomings because the research years are still limited from 1997 to 2011.

Lestari, Anis (2020) researched the influence of e-commerce with inflation and exchange rate variables on Indonesia's economic growth. The results of this research, if e-commerce is measured from the value of transaction data, have a positive and significant effect on long-term and short-term economic growth. Inflation measured by the consumer price index has a negative and insignificant effect. E-Commerce, inflation and exchange rates together influence Indonesia's economic growth in both the long and short term. However, this research still has shortcomings because the research years are still limited to only using 8 years from 2011 to 2018.

On the other hand, research on economic growth, for this research, the focus is on knowing and analyzing the influence of E-Commerce and the rupiah exchange rate on economic growth in Indonesia with the influencing variables, namely e-commerce, the rupiah exchange rate and economic growth. Where the data used in this research is secondary data for the research year starting from 2019 to 2023.

Because the rapid development of information and communication technology that occurs from time to time causes changes in the global economic order very quickly, this is also felt by Indonesia as one of the developing countries that adheres to an open economic system. So this research aims to analyze the influence of E-Commerce and the rupiah exchange rate on Indonesia's economic growth in 2019 - 2023.

Literature Review

E-Commerce

E-Commerce is a process of buying and selling or exchanging products, services and information via computer networks. E-Commerce is part of E-Business, where the scope of E-Business is broader and is not limited to commerce but also collaboration with business partners, customer service, job vacancies and others. Besides the www.E-Commerce network, it also requires data or databases, E-Letters or E-Mail, and other forms of non-

computer technology such as goods delivery systems and payment tools for E-Commerce.(Pradana, 2015).

Hoffman and Fodor's opinion(2010)E-Commerce can be run well if it is based on the 4C principles, namely: connection, creation, consumption and control. These principles can encourage consumers to refer to the company's ROI, which is measured through active participation such as feedback or recommendations to other users.

Aristotle defined exchange value as the ability of goods to be exchanged for other goods on the market. The exchange rate in financial management is defined as a level of currency that will be exchanged for another currency. Exchange rates during simple societies could be determined from how much or how little human productivity or work was done in producing a good or service(Gilarso, 2017).

According to David K. Elteman, et al define the exchange rate as the price of one currency based on other currencies. Meanwhile, according to M. Faisal, the exchange rate is the price of one currency expressed against another currency(Indonesian Bankers Association, 2012). Simply put, the exchange rate can be referred to as the level of value of one currency against another currency.

According to Sukirno, economic growth means the development of activities in the economy which causes goods and services produced in society to increase and society's prosperity to increase. The problem of economic growth can be viewed as a long-term macroeconomic problem from one period to another(Sukirno, 2010). Meanwhile, according to Lincolin Arsyad, economic growth is defined as an increase in Gross Domestic Product (GDP)/ Gross National Product (GNP) regardless of whether the increase is greater or smaller than the population growth rate, or whether changes in the economic structure occur or not.(Lincolin, 1999).

Meanwhile, according to Ali Ibrahim Hasyim(2016), economic growth can be interpreted as the process of changing the economic conditions of a country continuously towards a better condition over a certain period. There are three basic components needed for the economic growth of a nation; (1) Continuous increase in inventory of goods; (2) advanced technology as the main factor that determines the degree of growth in providing a variety of goods to the population; (3) widespread and efficient use of technology requires adjustments in the institutional and ideological fields, so that innovations produced by human science and technology can be utilized appropriately.

METHODS

The research method used is quantitative descriptive to explain the variables studied and the relationship between one variable and another. The type of data used in this research is secondary data which is timeseries data. Data processing in this research will use SPSS software. This research was conducted in Indonesia with the data used for 2019 - 2023. Details of the planned research time from April 2024 to July 2024.

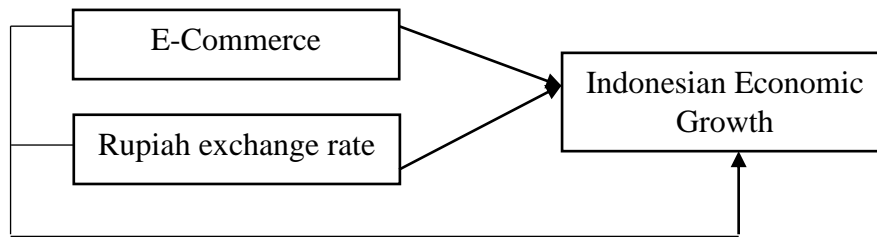


Figure 1. Thinking Framework

Based on the framework above, this research is hypothesized as follows:

1. H01: There is no significant influence between E-Commerce on Indonesia's Economic Growth in 2019 – 2023.
Ha1: There is a significant influence between E-Commerce on Indonesia's Economic Growth in 2019 – 2023.
2. H02: There is no significant influence between the Rupiah Exchange Rate on Indonesia's Economic Growth in 2019 – 2023.
Ha2: There is a significant influence between the Rupiah Exchange Rate on Indonesia's Economic Growth in 2019 – 2023.
3. H03: There is no significant influence between E-Commerce and the Rupiah Exchange Rate on Indonesia's Economic Growth in 2019 – 2023.
Ha3: There is a significant influence between E-Commerce and the Rupiah Exchange Rate on Indonesia's Economic Growth in 2019 – 2023.

RESULTS AND DISCUSSION

Descriptive Statistical Test

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Economic growth	5	-2.07000000000000	5.31000000000000	3.40200000000000	3.122734378713630
E-Commerce	5	168.3000	212.2000	191,740	17.4165
Rupiah exchange rate	5	-1.49000000000000	25.9200000000000	8.21400000000000	10.421419289137159
Valid N (listwise)	5				

Based on the results of the statistical tests carried out, the entire sample was declared valid.

Table 2. Tests of Normality

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistics	Df	Sig.	Statistics	df	Sig.
Unstandardized Residuals	,150	5	,200*	,988	5	,972

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

a. Lilliefors Significance Correction

The sig value for shapirowilk is $0.972 > 0.05$ so the data is normally distributed.

Table 3. Multicollinearity Test Coefficientsa

Model		Collinearity Statistics	
		Tolerance	VIF
1	E-Commerce	,832	1,202
	Rupiah exchange rate	,832	1,202

a. Dependent Variable: Economic Growth

The tolerance value is > 0.10 and the VIF value is < 10 so that there are no symptoms of multicollinearity in the research.

Heteroscedasticity Test

Table 4. Heteroscedasticity Test Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1,334	2,039		-.654	,580
	E-Commerce	,010	,010	,506	,954	,441
	Rupiah exchange rate	-.012	,017	-.356	-.672	,571

a. Dependent Variable: abscess

The sig value is > 0.05 so that there are no symptoms of the Heteroscedasticity Test in this study.

Hypothesis testing

Table 5. Hypothesis Testing Test R2 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.981a	,962	,924	.859099372566225

a. Predictors: (Constant), Rupiah Exchange Rate, E-Commerce

The magnitude of the influence that exchange rates and E-Commerce have on Economic Growth is 96.2%.

F test

Table 6. ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37,530	2	18,765	25,425	.038b
	Residual	1,476	2	,738		
	Total	39,006	4			

a. Dependent Variable: Economic Growth

b. Predictors: (Constant), Rupiah Exchange Rate, E-Commerce

The exchange rate and E-Commerce variables have a simultaneous effect on Economic Growth because the sig value is <0.05 and the calculated f value is > f table.

T test

Table 7. Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8,279	5,362		1,544	,263
	E-Commerce	-.013	,027	-.070	-.462	,689
	Rupiah exchange rate	-.302	,045	-1,007	-6,680	,022

a. Dependent Variable: Economic Growth

The exchange rate variable has a negative effect on Economic Growth because the sig value is <0.05 and the calculated t value is > t table.

Multiple Regression Analysis

$$Y = 8.279 - 0.013 \text{ EC} - 0.302 \text{ NTR}$$

1. The constant value is 8,279 which is a constant value with a positive value indicating that if the value of the exchange rate and E-Commerce variables is assumed to be constant or equal to zero then Y will increase.
2. The value of the exchange rate variable coefficient is -0.013 with a negative value, indicating that if the exchange rate increases then Y will decrease and vice versa if the exchange rate decreases then Y will experience an increase.
3. The value of the E-Commerce coefficient is -0.302 with a negative value, indicates that if the E-Commerce variable has increased then Y will experience a decline and vice versa if E-Commerce experiences a decline then economic growth will occur will experience an increase.

Discussion Result

Based on the research results, the E-Commerce variable has a value of Sig. of 0.689 in the T test, which is greater than 0.05. This shows that E-Commerce does not have a significant influence on Indonesia's Economic Growth in the 2019-2023 period. Although E-Commerce is considered to be one of the main drivers in the digital economy, the results of this study show that its impact on economic growth during this period was not significant.

Even though E-Commerce is experiencing growth, infrastructure and technology adoption in Indonesia may not yet be widespread enough to have a significant impact on the economy as a whole. The E-Commerce market may still be segmented into certain groups and does not yet have wide enough penetration into all levels of society. Government regulations and support for the E-Commerce sector may not be optimal so that their impact on economic growth is not clear.

The Rupiah Exchange Rate has a Sig value. amounting to 0.022 in the T test, which is smaller than 0.05, indicating that the Rupiah Exchange Rate has a significant effect on Indonesia's Economic Growth in the 2019-2023 period. This influence is negative, which means that an increase in the Rupiah Exchange Rate (depreciation) has a negative impact on Economic Growth.

Depreciation of the Rupiah makes the price of imported goods more expensive, which can reduce domestic consumption and investment. Increasing the price of imported goods can also trigger inflation, which reduces people's purchasing power and inhibits economic growth. Exchange rate fluctuations can create uncertainty in the economy, which can reduce investment and economic activity.

The results of the F test show that the variables E-Commerce and the Rupiah Exchange Rate simultaneously have a significant effect on Economic Growth, with a value of Sig. of 0.038 (< 0.05) and R^2 of 0.962. This means that the combination of these two variables can explain 96.2% of the variability in Indonesia's Economic Growth in the 2019-2023 period.

Although E-Commerce individually is not significant, when combined with the Rupiah Exchange Rate, there is a significant interaction that influences economic growth. These variables may have complementary effects where changes in one variable can affect another, thereby affecting the economy as a whole. Broader economic conditions, including government policies, the global situation, and other factors, may play a role in how these two variables influence economic growth simultaneously.

CONCLUSION

Based on the results of research regarding the influence of E-Commerce and the Rupiah Exchange Rate on Indonesia's Economic Growth in the 2019-2023 period, it can be concluded that the E-Commerce variable does not have a significant individual influence on economic growth. On the other hand, the Rupiah Exchange Rate shows a significant and negative influence on economic growth, which means that Rupiah depreciation tends to reduce economic growth. However, simultaneously, these two variables show a significant influence on economic growth, with the ability to explain the variability in economic growth of 96.2%. This shows that the interaction between E-Commerce and the Rupiah Exchange Rate played an important role in the dynamics of the Indonesian economy during that period. Factors such as technological infrastructure, market segmentation, and government policies can also influence these results. Therefore, a holistic and integrated strategy is needed to maximize the potential of E-Commerce and manage fluctuations in the Rupiah Exchange Rate in order to achieve sustainable economic growth.

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