The Effect of Investment and Consumption on Economic Growth

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Article Info	Abstract
	The purpose of this research is to establish whether or not there is a relationship between investment and consumption levels and economic growth. This study employs quantitative methods, and the data is processed in accordance with the requirements of the model being utilized. Multiple linear regression is the method used in the data processing. The information utilized is secondary information derived from historical documents or reports that have been published or are in the process of being published. The findings revealed that the investment variable had a positive and statistically significant impact on economic growth. Conclusions While the variable level of consumption has a positive and substantial impact on economic development, the level of consumption is not constant. According to the results of the regression, the value of R-Squared (R2) is 0.726. Thus, the independent variable can explain 85.2 percent of the variance in economic growth, with the remaining 0.15 percent explained by factors outside the model, as shown in Figure 1. It is proposed to the government that it raise the proportion of development expenditures, with the expectation that these expenditures would be used toward improving development and public infrastructure in order to promote the smooth operation of economic activities.

Introduction

Investing as a percentage of national income will have an impact on the amount of national income in cases when investments are made by establishing new business sectors that result in greater production and job possibilities (Nolte & Ostermeier, 2017). Capital expenditures allow a community to continually enhance economic operations while simultaneously increasing national revenue and raising the degree of communal wealth. In order to fulfill this role, investment activities must fulfill three important functions: (1) investment is a component of aggregate expenditure, so that an increase in investment increases aggregate demand, national income, and employment opportunities; (2) an increase in capital goods as a result of investment in increasing production capacity; and (3) investment is always followed by technological development.

The absence of capital in developing nations may be seen from a variety of perspectives (Mason, 2007). Among them are limited absolute material capacity and the fact that the business does not manufacture its own raw materials and instead gets them from other parties, to name a couple of examples. Despite the fact that there are a number of businesses who also manufacture their own raw materials (Akinyoade et al., 2016). With the help of professionals, the raw material will be transformed into a product with more value, greater use, and greater marketability.

Limited capacity and expertise of the population, namely the number of jobless people owing to a lack of work possibilities and extremely poor skills, since in order to obtain a job, one must have a strong education and skills (Odia & Odia, 2013). Limited capacity and competence. When the current stock of capital depreciates at a quicker rate than the investment required to

replace each capital asset, the net investment is negative, as described above. Because of this, production capacity is reduced, which may provide a challenge for future development. Positive investment, on the other hand, may render a business or economy uncompetitive if it continues over an extended period of time (Andolfatto, 2021).

As a consequence of these constraints, emerging nations have natural resources that are underdeveloped and untapped human resource potential (Speelman et al., 2019). As a result, in order to improve productivity, it is essential to accelerate new investment in physical capital goods as well as human resource development via increased expenditure in education and training programs.

Consumption plays a vital part in a country's economic activity, and it has a significant impact on the country's economic stability as a result of this. The higher the level of consumption, the greater the rate of change in economic activity and the greater the rate of change in national income in a particular country (Fanning & O'Neill, 2019).

However, at very low income levels, it is feasible to spend all of one's income, resulting in a net loss of savings. Even compelled spending is funded by the accumulation of wealth or the accumulation of revenue in the past. Because of the changes in the economic environment, factors that may influence consumer expenditures other than income have increased in importance. These variables include interest rates, net worth, and durable goods. This interest rate has a significant impact on savings, which will in turn have an impact on consumption in the long run (Schaner, 2018). Consumers have a preference for an item now available over an item that will be available in the future (Salisbury & Feinberg, 2008). The provision of a service known as interest is required in order for consuming to be prepared to delay consumption expenditure (Ensor & Cooper, 2004). The higher the interest rate, the larger the amount of money saved, and therefore, the less money is available for consumers to spend. As an alternative, a low interest rate means that people save less money, which means that they spend more of their savings on their daily activities.

This model is based on Harrord Domar's thesis, which holds that capital must be utilized efficiently in order for economic development to be significantly affected by the role played by capital creation. Increased production of products and services, increased level of knowledge, improvements in technology, and economies of scale are all factors that influence the development of a sector, and these factors all influence the industry's comparative advantage.

Economic growth still requires more investigation into the role played by investment growth in the development of economic circumstances, in order for the development process to enhance people's welfare to be accomplished and felt by the whole society (Lin, 2011; Arndt, 2015)

Methods

The kind of data utilized in this research is quantitative data, and the data source is secondary data, which is the case in most studies. A sample methodology and a questionnaire are not required in this study since the documentation method or literature study is utilized to gather data. The data that was used or will be utilized in this research is secondary data in the form of time series data, which will be used between 2010 and 2019. For the objectives of estimate, statistical methods are used in this research. The statistical analysis tool most frequently employed in this study is regression analysis, which is utilized in this method. The inferential analysis model was utilized in this research as the analytical model

Result and Discussion

Classical Assumption Test

To evaluate whether or not the use of multiple linear regression models in the analysis has adhered to the classical assumptions. If the following assumptions can be fulfilled, multiple linear models will be more suitable to employ and will result in more accurate results. These assumptions are:
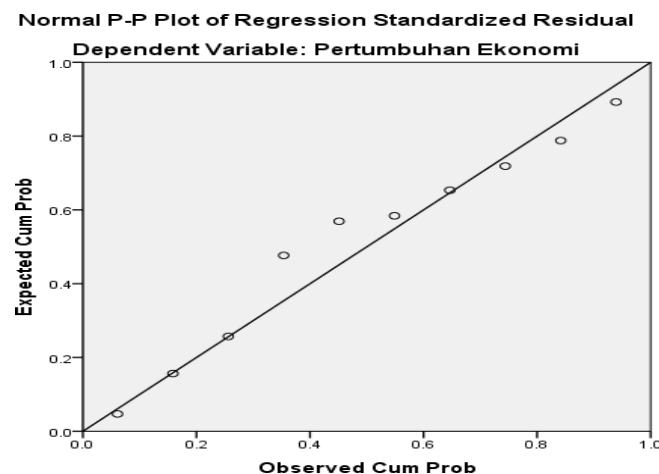
Normality Test

Figure 1. normality test graph

According to the illustration above, the points spread around the diagonal line in the Normal PP plot of the regression Standardized Residual graph (forming a straight line), and the distribution follows the direction of the diagonal line (forming a straight line), it can be concluded that the data is normally distributed and that the regression model is feasible to use for predicting Economic Growth on the basis of the econometric model.

Autocorrelation Test

Table 1. Autocorrelation Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- atson
1	.852[a]	.726	.648	.53887	2.182

Table 7 shows that the Durbin Waston value shows a value of 2.182, so it can be concluded that the coefficient is free from autocorrelation disturbances.

Multicollinearity Test

Table 2. Multicollinearity Test Results

Coefficients[a]

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
Investasi	.006	164.393

Tingkat Komsumsi	.006	164.393

It can be observed in the preceding table 8 that the VIF value for each research variable is different. The VIF value for the investment variable is 164.393 0.10, and the tolerance value is 0.006 > 0.10, resulting in the investment variable being deemed to be free of symptoms of multicollinearity by the VIF value. As a result, there is no multicollinearity in the variable level of household consumption when the VIF value is 164.393 0.10 and the tolerance value is 0.006 > 0.10, indicating that the variable level of household consumption does not exhibit multicollinearity.
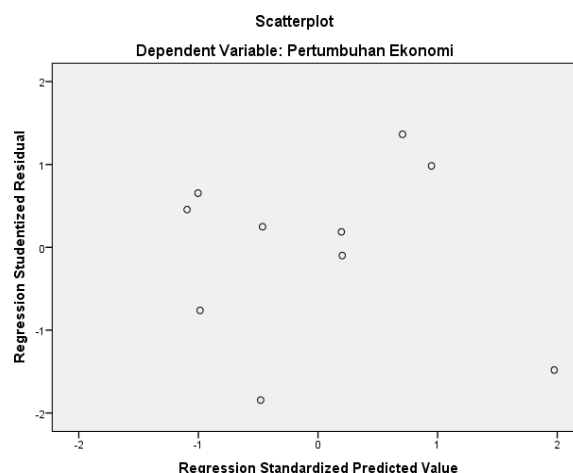
Heteroscedasticity Test

Figure 2. Graph of Heteroscedasticity

In Figure 2, it can be seen how equally distributed the data points are above and below the zero line, how they do not cluster in any one area, and how they do not create a particular pattern, leading us to infer that there is no issue with heteroscedasticity in this regression test.

Multiple Linear Regression Test

Table 3. Multiple Regression Analysis Results

Coefficients[a]				
Model	**Unstandardized Coefficients**		**Standardized Coefficients**	**t**
	B	Std. Error	Beta	
(Constant)	5.705	5.207		1.096
Investment	.007	.002	8.553	3.374
Consumption Rate	.009	.003	7.996	3.154

Based on the data in Table 3, it can be seen that the value of the constant □ is 10,912, and that the regression coefficients (b1) and (b2) are both 0.007 and 0.009, respectively. 5.705 indicates that if Investment (X1) and Household Consumption Level (X2) are both zero or constant, then Economic Growth (Y) is 5.705. If the investment regression coefficient (X1) increases by one percent while assuming that all other independent variables remain constant, then Economic Growth (Y) increases by 0.007, and so on with the remaining independent variables.

Hypothesis test

Coefficient of Determination Test (R2)

Table 4. Calculation Results of the Coefficient of Determination (R2)

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.852[a]	.726	.648	.53887

In other words, the coefficient of determination (R2) is 0.726, which is a significant number. Thus, the significant proportion of variation in the Economic Growth Rate that can be described by the fluctuation of the two independent variables, namely Investment and Household Consumption Rate, is 85.2 percent, with the remaining 0.15 percent explained by factors that are not included in this research.

F Test

Table 5. Result of f test calculation

ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	5.395	2	2.698	9.290	.011[b]
Residual	2.033	7	.290		
Total	7.428	9			

After taking into account the findings of the regression presented in Table 11, the impact of the variables Investment (X1) and Household Consumption Level (X2) on Economic Growth (Y) was determined to be statistically significant at 0.0111 > 0.05. This demonstrates that the two independent variables have a statistically significant impact on the union variable.

T Test

Table 6. t test calculation results

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	5.705	5.207		1.096	.310
Investment	.007	.002	8.553	3.374	.012
Consumption Rate	.009	.003	7.996	3.154	.016

Because of the substantial level, it is possible to observe the impact of each element, including investment and household consumption level, on economic growth. With a significant level of 0.012 0.05 for the investment variable, it can be concluded that the investment variable has a significant and positive relationship with economic growth. The household consumption level variable has a significant level of 0.016 0.05, indicating that it has a significant effect and is related to economic growth. The outlook for economic growth is favorable.

The significant value of the Investment variable is 0.012 when compared to the significant level (0.05), indicating that the variable has a significantly greater value than the significant level (0.012 0.05). As a result, H0 is rejected and H1 is accepted, indicating that the variable has a

statistically significant effect on the outcome. and has a favorable relationship with economic growth According to the regression results, investment has a statistically significant effect on economic growth, indicating that the initial hypothesis that the Investment variable has a statistically significant and positive effect on economic growth in City X is correct. This is especially true in the context of development, particularly in developing countries. Investment is the primary objective, and its contribution to achieving the goal of faster economic development, particularly in terms of increasing the growth rate of regional original income, is extremely dependable and predictable (Connor, 2015).

Hypothesis Testing the Effect of Household Consumption Levels on Economic Growth

The significant value of the Household Consumption Level is 0.016 when compared to the significant level (0.016 0.05), indicating that H0 is rejected. The significance level is 0.016 in the table above. In accordance with the initial hypothesis that the variable level of household consumption has a significant and positive relationship to economic growth in City X, the regression results show that the level of household consumption has a significant effect on economic growth, which means that the initial hypothesis that the variable level of household consumption has a significant and positive relationship to economic growth in City X is supported by the regression results. In most cases, the money obtained by families will be utilized to purchase food, clothes and transportation expenses, as well as to pay for the education of children, to pay for housing and to purchase cars. In order to fulfill their requirements, these goods are bought by families.

Behavioral patterns in the long and short term have an impact on purchasing choices made by individuals in a given household (Van Acker et al., 2016; Tiefenbeck et al., 2013). In the long run, spending choices made by households are significant because of their contribution to economic growth. Meanwhile, when it comes to estimating aggregate demand, short-term analysis is very essential.

The higher the level of consumer spending generated by a person's family income, and the bigger the level of consumption expenditure generated by a person, the greater the level of economic growth. For example, the fact that a person's income level correlates positively with his or her consumption patterns, which in turn correlates positively with the demand for goods and services in the consumer goods and services sector, which is a component of aggregate demand that can spur economic growth, explains why it is said that household consumption is positively correlated with economic growth.

When it comes to household consumption expenditure, it is affected by spending made by others in his immediate vicinity (neighbors), whereas b.) Consumption expenditure is not reversible. This implies that as a person's income drops, their spending habits change. The Keynesian theory of consumption, which is based on absolute income, does not take into account the psychological elements of a person's consumption. Household consumption spending is highly affected by one's social status or one's social standing in the society in general.

Over the short and long term, consumption choices in the home are affected by general behavioral patterns in the household. In the long run, spending choices made by households are significant because of their contribution to economic growth. Meanwhile, when it comes to estimating aggregate demand, short-term analysis is very essential. In the economy, the amount of consumption expenditure produced by families varies depending on their level of income. The consumption level rises in direct proportion to the level of income.

Conclusion

Based on the findings of the research and discussion, it is concluded that the investment variable has a positive and statistically significant impact on GDP growth. The variable of Household Consumption has a positive and statistically significant impact on the growth of the economy. Increasing investment in City X is anticipated through policies that promote economic stability, improve infrastructure infrastructure that supports and facilitates regulations in investing in order to further increase economic growth in City X. Local governments are also expected to attract foreign investment by creating a business-friendly environment, reducing red tape, and providing incentives for foreign investment in order to attract more foreign investment.

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