


The Effect Of Consumption, Government Expenditure, Investment And Net Exports On Grdp Of Surabaya City

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Article Info	ABSTRACT
<p>Keywords: Consumption, Government Expenditure, Investment, Net Exports, GRDP</p>	<p>This study aims to analyze the effect of consumption, government spending, investment, and net exports on Gross Regional Domestic Product (GRDP) in Surabaya City for the period 2013-2023. The method used is multiple linear regression analysis with a descriptive approach, using secondary data. The results of the study indicate that consumption has a significant positive effect on GRDP with a t-value of 5.768 and sig 0.001, while government spending and investment do not show a significant effect on GRDP (sig 0.159 and 0.235, respectively). Net exports are recorded to have a significant positive effect with a t-value of 4.464 and sig 0.004. The F test shows that simultaneously, the four variables have a significant effect on GRDP with a sig value of 0.000. The conclusion of this study is that consumption and net exports have a greater contribution to GRDP growth in Surabaya City.</p>
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INTRODUCTION

Gross Regional Domestic Product (GRDP) is the main indicator used to measure the economic growth of a region. GRDP reflects the total value of goods and services produced by a region in a certain period and serves as a barometer of economic health. The city of Surabaya is also one of the main economic centers in Indonesia, factors such as household consumption, government spending, investment, and net exports are believed to have a significant influence on the formation of GRDP. Household consumption continues to show stable growth along with increasing purchasing power and changes in more modern consumption patterns. Investment, both in the form of Foreign Investment (PMA) and Domestic Investment (PMDN), has driven the development of strategic sectors such as infrastructure, real estate, and the manufacturing industry, which in turn increases the competitiveness and capacity of the local economy. On the other hand, government spending is an important driver in the provision of basic infrastructure and public services that support the economic activities of the community. Meanwhile, Surabaya also plays a role as an international trade hub, where net exports contribute to the dynamics of the city's economy, although influenced by commodity price volatility and global uncertainty. With these dynamics, it is important to comprehensively understand how these four main variables have influenced the formation of Surabaya City's GRDP over the past decade.

METHOD

The data analysis method used in this study uses a descriptive approach so that the analysis tool used is a quantitative descriptive analysis tool. The method used is multiple linear regression analysis to test the effect of independent variables on the dependent variable. This study uses PDRB data for the City of Surabaya in 2013-2023.

DISCUSSION

Data analysis

Based on the attached data, it can be explained that this study consists of five variables, four independent variables and one dependent variable. In data processing, a list table is used to analyze

Year	Consumption (X1)	Government spending (X2)	Investment (X3)	Net Export (X4)	GRDP (Y)
2013	174,875,178.12	12,737,907.92	81,624,030.87	14,729,771.22	286,050,731.18
2014	188,167,293.73	13,165,864.95	85,048,809.13	7,908,065.24	305,947,579.97
2015	195,858,863.79	13,627,957.7	89,356,521.03	12,767,661.42	324,215,166.88
2016	206,074,511.6	12,283,205.35	95,166,512.55	21,192,380.12	343,652,595.01
2017	216,549,969.96	12,829,969.74	101,349,983.99	24,979,239.32	364,714,819.48
2018	227,807,923.57	13,532,926.58	107,799,575.77	28,936,557.75	387,303,942.07
2019	239,677,488.5	14,195,513.03	113,167,943.19	34,316,241.37	410,879,306.14
2020	233,418,419.55	12,920,419.54	104,649,283.31	34,744,191.99	390,936,424.98
2021	235,368,292.59	13,134,816.28	105,836,909.53	46,028,056.16	407,725,825.13
2022	248,098,042.73	13,334,552.34	111,798,861.82	52,908,848.74	434,268,341.12
2023	260,729,565.05	13,843,874.78	118,166,509.36	57,819,663.51	459,030,719.58

Multiple linear regression analysis

To analyze the influence of each independent variable on the dependent variable (PDRB), a multiple linear regression model is used. This model is used because it is able to explain the relationship between one dependent variable and an independent variable at once. The regression equation used in this study is as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Information :

Y = GRDP of Surabaya City

β_0 = Constant

$\beta_1 \beta_2 \beta_3 \beta_4$ = Regression coefficient of each variable

X_1 = Consumption

X_2 = Government spending

X_3 = Investment

X_4 = Net Export

Hypothesis Testing

t-test

Individual testing is done by conducting a t-test by comparing the significance value of t-count with 0.05. This test is done to determine the quality of the significance of the

regression between each independent variable (X) whether there is an influence or not on the dependent variable (Y). The statistical tests used are:

Ho: $\beta_i = 0$, meaning variable X has no effect on variable Y.

Ha: $\beta_i \neq 0$, meaning variable X has an effect on variable Y.

The following is an explanation of the partial test:

Model	Coefficients ^a				
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1(Constant)	-43001905.13022129633.830			-1,943.100	
Consumption	1,365	.237	.670	5,768	.001
Government_Expenditure	2,897	1,801	.029	1,608	.159
Investment	.562	.426	.124	1,319	.235
Net_Export	.677	.152	.205	4.464	.004

a. Dependent Variable: GRDP

Based on the table above, it is concluded that:

1. Hypothesis Test Value (X1) shows the calculated t value is 5.768 and the significant value is $0.001 < 0.05$. This shows that the consumption variable partially has a significant effect on the formation of GRDP.
2. The value of the Government Expenditure Hypothesis Test (X2) shows that the calculated t value is 1.608 and the significant value is $0.159 > 0.05$. This shows that the Government Expenditure variable partially does not have a significant effect on the formation of GRDP.
3. The Investment Hypothesis Test Value (X3) shows that the calculated t value is 1.608 and the significant value is $0.235 > 0.05$. This shows that the Investment variable partially does not have a significant effect on the formation of GRDP.
4. The Net Export Hypothesis Test Value (X4) shows that the calculated t value is 4.464 and the significant value is $0.004 < 0.05$. This shows that the Net Export variable partially has a significant effect on the formation of GRDP.

f test

The F statistical test is conducted to show whether all independent variables Consumption (X1), Government Expenditure (X2), Investment (X3), Net Export (X4) have a significant influence on the dependent variable GRDP (Y). The F test is conducted by comparing the significance value with 0.05.

ANOVA ^a						
Model	Sum of Squares	df	Mean Square			Sig.
1	Regression	29638148482673760.000	4	7409537120668440.000	1183.421	.000
	Residual	37566688731630.960	6	6261114788605.160		
	Total	29675715171405392.000	10			

a. Dependent Variable: GRDP

b. Predictors: (Constant), Net_Exports, Government_Spending, Investment, Consumption

significance value of $0.000 < 0.05$. This shows that the variables Consumption, Government

Expenditure, Investment, Net Exports together (simultaneously) have a significant effect on the formation of the PDRB of Surabaya City.

Test of determination coefficient r

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.999 ^a	.999	.998	2502221.97029

a. Predictors: (Constant), Net_Exports, Government_Spending, Investment, Consumption

Based on the correlation coefficient value (R) shows how close the relationship is between the independent variables of Consumption, Government Expenditure, Investment, and Net Export with the dependent variable of GRDP formation. The estimation result obtained from the R value table is 0.998 which means that the formation of GRDP in the city of Surabaya is explained by the variables of Consumption, Government Expenditure, Investment, and Net Export by 99.8% and the rest is explained by other variables which is 2%.

Discussion of Research Results

The Influence of Consumption on the Formation of GRDP

From the results of the research conducted, it shows that Consumption has a significant effect on the formation of GRDP, the regression coefficient value (b1) is 1.365, the positive value (b1) indicates a unidirectional relationship between the Consumption variable, meaning that if the Consumption variable increases by 1 rupiah, then the amount of the GRDP formation variable will increase by 1.365 units with the assumption that the value of the other variables is constant. The sig value for the Consumption variable on the Formation of GRDP is $0.001 < 0.05$ and the t-value is $5.768 > 1.943$ so it can be concluded that H_a is accepted and H_o is rejected, which means there is a significant influence between Consumption on the Formation of GRDP in the City of Surabaya. Because Consumption increases every year, this has an impact on the Formation of GRDP in the City of Surabaya which has also increased. This shows that increased public consumption, both for daily needs and the purchase of goods and services, has a direct impact on increasing the gross regional domestic product (GRDP).

The Influence of Government Spending on the Formation of GRDP

From the results of the research conducted, it shows that Government Expenditure has no significant effect on the Formation of GRDP, the regression coefficient value (b2) of 2.897, the positive value (b2) indicates a unidirectional relationship between the Government Expenditure Variable and the Formation of GRDP, meaning that if the Government expenditure variable increases by 1 rupiah, then the amount of the GRDP formation variable will increase by 2.897 units with the assumption that the value of the other variables is constant. The sig value for the Government Expenditure variable on the Formation of GRDP is $0.159 > 0.05$ and the t-count value is $1.608 < 1.943$ so it can be concluded that H_a is rejected and H_o is accepted, which means there is no significant effect between government expenditure on the formation of GRDP in the City of Surabaya. This is because the existing Government Expenditure experiences fluctuations so that it has not been able to influence the

Formation of GRDP in the City of Surabaya which increases every year.

The Influence of Investment on the Formation of GRDP

From the results of the research conducted, it shows that Investment does not have a significant effect on the formation of GRDP, the regression coefficient value (b3) is 0.562, the positive value (b3) indicates a unidirectional relationship between the Investment Variable and the Formation of GRDP, meaning that if the Investment variable increases by 1 rupiah, then the amount of the GRDP formation variable will increase by 0.562 units with the assumption that the value of the other variables is constant. The sig value for the Investment variable on the Formation of GRDP is $0.235 > 0.05$ and the t-value is $1.319 < 1.943$ so it can be concluded that H_a is rejected and H_o is accepted, which means there is no significant effect between Investment and the formation of GRDP in the City of Surabaya. This is because the existing Investment experiences fluctuations so that it has not been able to influence the formation of GRDP in the City of Surabaya which increases every year.

The Influence of Net Exports on the Formation of GRDP

From the results of the research conducted, it shows that Net Export has a significant effect on the formation of GRDP, the regression coefficient value (b4) is 0.677, the positive value (b4) indicates a unidirectional relationship between the Net Export variable, meaning that if the Consumption variable increases by 1 rupiah, then the amount of the GRDP formation variable will increase by 0.677 units with the assumption that the value of the other variables is constant. The sig value for the Net Export variable on the Formation of GRDP is $0.004 < 0.05$ and the t value is $4.464 > 1.943$ so it can be concluded that H_a is accepted and H_o is rejected, which means there is a significant influence between Net Exports on the Formation of GRDP in the City of Surabaya. Because Net Exports have increased every year, this has an impact on the Formation of GRDP in the City of Surabaya which has also increased

CONCLUSION

The results of the t-test for the Consumption Variable (X1) are seen from the t-count of 5.768 with a significant value of $0.001 < 0.05$, this shows that the consumption variable has a positive and significant effect on the formation of GRDP (Y) in the City of Surabaya in 2013-2023. The results of the t-test for the Government Expenditure Variable (X2) are seen from the t-count of 1.608 with a significant value of $0.159 > 0.05$. This shows that the Government Expenditure variable has a positive and insignificant effect on the formation of GRDP (Y) in the City of Surabaya in 2013-2023. The results of the t-test for the Investment Variable (X3) are seen from the t-count of 1.319 with a significant value of $0.235 > 0.05$. This shows that the Investment variable has a positive and insignificant effect on the formation of GRDP in the City of Surabaya 2013-2023. The results of the t-test of the Net Export Variable (X3) are seen from the t-count of 4.464 with a significant value of $0.004 < 0.05$. This shows that the Net Export variable has a positive and significant effect on the formation of GRDP in the City of Surabaya in 2013-2023. The results of the F test of the independent variables are seen from the significance value obtained of $0.000 < 0.05$. Showing that the variables Consumption, Government Expenditure, Investment, Net Exports together (simultaneously) have a significant effect on the formation of GRDP in the city of Surabaya in 2013-2023.

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