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The Influence Of Foreign Direct Investment, Wage Level, Tourism Industry and Regional Native Income on Products Domestic Regional Bruto

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ABSTRACT

Background. High GRDP (Gross Regional Domestic Product) growth can attract investor interest, stimulate investment, and encourage infrastructure development, leading to increased connectivity and economic efficiency. Furthermore, strong GRDP growth can create additional labor demand, potentially reducing poverty and raising income levels.

Purpose. This research aims to examine the factors influencing GRDP in Indonesia, specifically focusing on foreign direct investment (FDI), wage levels, the tourism industry, and regional original income (PAD), using data from 2020 to 2022.

Method. The study employs a quantitative approach, utilizing panel data obtained from the Indonesian Central Statistics Agency (BPS) from 2020 to 2022. Multiple Linear Regression analysis is applied to assess the relationship between GRDP and the selected independent variables: FDI, wage levels, tourism, and PAD.

Results. The results indicate that FDI has a significant positive effect on GRDP, with a t-value of 6.264, which is greater than the critical value of 1.66196. Conversely, wage levels and the tourism industry do not show a significant impact on GRDP, with respective probability values of 0.39 and 0.254, both below the threshold. Meanwhile, PAD has a significant positive effect on GRDP, with a t-value of 4.904, also exceeding the critical value of 1.66196.

Conclusion. This study concludes that FDI and regional original income (PAD) are significant contributors to GRDP growth in Indonesia, while wage levels and the tourism sector do not have a notable impact on regional economic performance during the observed period.

KEYWORDS

FDI, GDP, Locally-Generated Revenue, Tourism, Wage level.

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INTRODUCTION

High GRDP growth can also attract investor interest, encourage investment and infrastructure development which will increase connectivity and economic efficiency. In addition, strong GRDP growth can create additional demand for labor, which has the potential to reduce unemployment and increase people's income. Positive economic growth also influences fiscal and monetary policy, providing fiscal freedom for the government and the opportunity to reduce interest rates, which encourages investment and consumption (Zahran, 2020).

One type of investment that the government should prioritize is foreign direct investment (FDI), because it can provide encouragement to increase a country's GRDP (Gross Regional Domestic Product). FDI brings new capital to recipient areas. This capital can be used to finance infrastructure projects, expand production capacity, increase efficiency, and develop certain economic sectors. With greater capital, economic growth accelerates, which contributes to increasing GRDP (Zohara, 2021). Textbook understanding and the augmented Solow growth model have been studied to describe the consequences of labor and capital growth (Salim et.al, 2024).

The presence of FDI in a place can also create a multiplier effect for related sectors, so that the presence of foreign companies encourages the development of supporting industries, such as raw material providers, service providers and local distributors. This creates ties between different economic sectors and encourages broader economic growth, which in turn leads to an increase in overall GRDP. The dynamics of investment capital flows will also definitely stimulate wage levels which will give rise to strong purchasing power. This will of course greatly weaken GRDP because one of the supporting instruments for GRDP is people's purchasing power as measured by consumption. In general, we can interpret the wage level as a percentage of workers' income in a certain period (Zahran, 2020). Regarding goods management, there needs to be technical guidance for asset managers to optimize their management (Khoirudin, 2024). In the concept of development, Human Resources arenot only seen as objects, but are seen in determining the direction and policies of development (Wahyumiani & Khoirudin, 2023).

The tourism industry in Indonesia has begun to show revival. The revocation of the PPKM policy related to the pandemic seems to be able to encourage tourism travel in the country. According to Sandiaga Uno, the growth in tourist travel to Indonesia in 2022 will be 152% compared to January 2021. So that in December 2022, growth in the Indonesian tourism sector will increase by 447.08%. The tourism industry is one of the leading industrial sectors in Indonesia, this is supported by the availability of nature and culture so that many tourists come every year. The following is the trend of the tourism sector's contribution to GDP in 2017 – 2021. (Abidin et al, 2020) The political celebration of the regional head election in Buleleng took place relatively safely.

It is very visible that although the movement of tourism's percentage of GRDP tends to fluctuate, it can remain at no less than 4% of its contribution to GRDP. This indicates that business movements in the tourism sector have increased the real base, so that income from the tourism sector will continue to find adaptation.

After Covid-19, the condition of foreign exchange receipts from tourism has not yet fully recovered, there is a significant decline in 2020 and 2021, reaching 0.49 billion dollars. Compared to before Covid, of course this figure is very small. Starting from 2022 to early 2023, the trend of accelerating recovery from the impact of Covid-19 in the tourism sector has begun to be seen with increasing tourism foreign exchange earnings. Previously in 2021 it touched 0.49, in 2022 it will increase to 4.26 billion dollars.

Through this research, researchers will analyze the relationship between each existing variable so that the dominant elements that influence GRDP growth can be identified. Researchers will also try to find correlations in each existing variable so that these variables can be found to be related. Therefore, the title of my research on this occasion is "The Influence of Foreign Direct Investment, Wage Levels, the Tourism Industry and Regional Original Income on Regional Domestic Product.

The movement of FDI (% GDP) is in line with the movement of economic growth. The highest FDI occurred in 1975 at 4.24 percent of GDP. In 2014, the FDI, 2.82 percent of GDP, was

the highest in the last decade. FDI and exports which during the last one decade had a downward trend. A decline occurred in 2016, where FDI was only 0.49 percent of GDP and exports were 19.09 percent of GDP. Those numbers are the lowest in the last decade (Kurniawan & A'yun, 2022)

The valuation of Pantai Parangtritis becomes very important along with the micro issue concerning the plan of infrastructure development, facilities and infrastructure in south region. Development of infrastructure in process is Jalur Lintas Selatan Street which includes the area around Parangtritis Beach. The analytical tool used to know variable that influence number of traveler to Parangtritis tourist attraction and the economic value of Parangtritis Beach is Travel Cost Method. Based on the research findings that the variable of total cost, income level, age, and education level influence the number of visits to Parangtritis Beach. While the economic valuation of Parangtritis Beach is Rp14.605.101.491 (Khoirudin & Khasanah, 2018). (Faudzi et.al., 2023) Indonesia's natural wealth makes agriculture and plantations one of the jobs that many are involved in and occupied.

Family recreation practices are influenced by geographical, demographic changes, and an understanding of the importance of tourism to families. The purpose of this study is to explain the tendency of family understanding towards family recreation and the tendency of family recreation. The findings suggest that family recreation is associated with increased family understanding and mobility (Wardiyanta, et.al., 2017)

Tourism development was triggered by the regional autonomy policy on January 1, 2001. Local governments are competing to increase regional growth by the tourism sector. One of them is Gunungkidul which has the advantage of beach tourism. The purpose of the study is to examine the impact of tourism development on economic conditions (Nafisah, & Sukarniati, 2015).

The study uses a gravity model, which determines bilateral data such as domestic income, population, distance, endowment factors, equal economic size, and dummy Regional Trade Arrangements, to be analyzed as well. This study uses a data panel as a method. The data consists of 10 main Indonesian trading partners as cross section data. The observations consist of the period 1970-2000 (Yuniarti, 2007).

RESEARCH METHODOLOGY

This research is quantitative research using panel data analysis techniques from 2020 to 2022 in Indonesia. The variables used in this research are FDI, wage levels, tourism industry, local revenue and GDP. Data sources BPS, BKPM, KMENKEU. The multiple linear regression used is as follows;

$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + e_{it}$$

Information :

Y = Gross Domestic Income

α = Constant

β_(1) X_1 = Regression Coefficient

X_1= Overseas Foreign Direct Investment

X_2 = Wage Level

X3 = Tourism Industry

X4 = Original Regional Income

e = error

RESULT AND DISCUSSION

According to the research results seen from descriptive statistics as follows;

Variable	N	Minimum	Maximum	Mean	Std. Deviation
FDI (X1)	90	88500000000	1122900000000000	15266250000000.00	2176667119000.000
Minimum wage (X)	90	1704608	4641854	2656301.51	564441.629
Tourism industry (X3)	90	65000000	3692000000000000	867901291600.00	4619245751000.000
PAD (X4)	90	557646134	1080000000000000	679474557500.00	1545976041000.000
GDP (Y)	90	41729890000	3186469910000	561254461100.00	747118117500.000

Table 1. Descriptive Statistics

The independent variable FDI (X1) has a sample of 5, shows a minimum value of 28417.0000000, a maximum of 37553.0000000, an average (mean) of 31497.200000000 and a standard deviation value of 3671.3591760000.

The independent variable Wage Level (X2) has a sample of 5, showing a minimum value of 51.0000000, a maximum of 623.0000000, an average of 275.400000000 and a standard deviation value of 302.9262286000.

The Independent Variable Tourism Industry (X3) has a sample of 5, shows a minimum value of 49.0000000, a maximum of 1776.0000000, an average of 1021.800000000 and a standard deviation value of 124759.3194000000.

Normality test

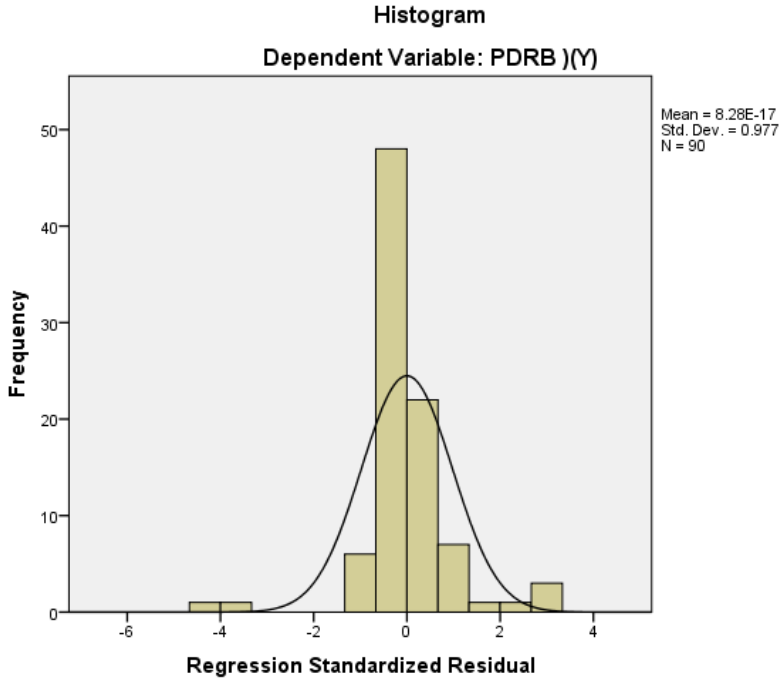

Figure 1. Normality Test

Based on the results of the normality test using the histogram graph in the image above, it can be seen that it is normally distributed. We can see this result in the curve which is balanced on each side.

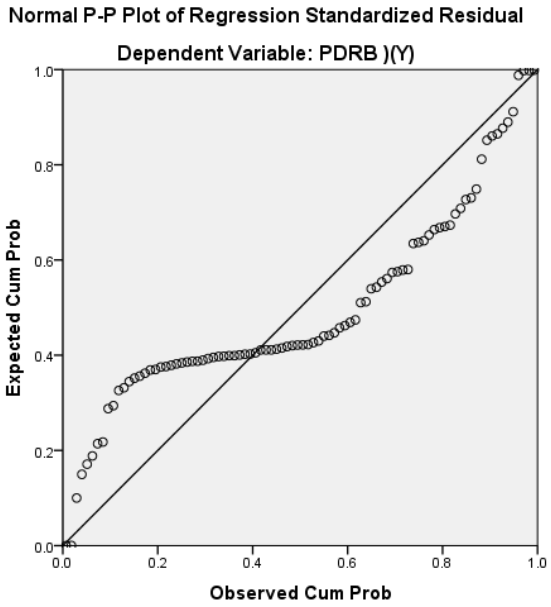

Figure 2. Normality Test

In the normality test plot above, it can be seen that the diagonal line shows the final state of normally distributed data, the points in the image show most of the data tested. The image above also shows the points following the diagonal line even though they dynamically leave the line but return to tracing the line. So we should conclude that from this study the data is normally distributed, this is also confirmed by the normality test in the table below.

Heterokedastisitas test

From the results of the scatterplot image in the image above, there are dots that are spread out and do not form a particular pattern, so it can be concluded that the regression model does not indicate heteroscedasticity and can be From the results of the scatterplot image in the image above, there are dots that are spread out and do not form a particular pattern, so it can be concluded that the regression model does not indicate heteroscedasticity and can be.

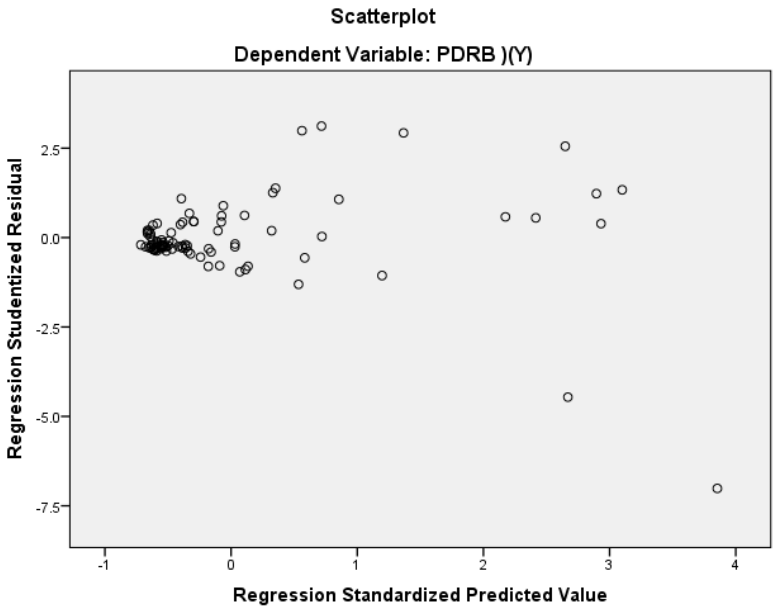

Figure 3. Normality Test

From the results of the scatterplot image in the image above, there are dots that are spread out and do not form a particular pattern, so it can be concluded that the regression model does not indicate heteroscedasticity and can be used**.**

Autocorrelation test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.772[a]	.596	.577	485871995200.000	1.873

Table 2. Autocorrelation test

Based on the results of the correlation test, it is known that the Durbin-Watson (DW) value = 1.873, compared with the significance table value of 5% (0.05) with a sample size of 3 and a number of independent variables of 4, so that the value of du from the table is obtained, r = 1.7508. The DW value is greater than the du limit and less than (4-du) = 4 – 1.7508 = 2.2492. so it can be concluded that there is no autocorrelation.

Multiple Linear Regression Test

		B	Beta		
1	(Constant)	68208828160.000		.264	.792
	FDI (X1)	.017	.499	6.264	.000
	Minimum Wage (X2)	37479.012	.028	.398	.691
	Tourism Industry (X3)	.003	.018	.254	.800
	Regional Original Incom (X4)	.019	.395	4.904	.000

Table 3. Regression Test

Y = 68208828160.000 + 0.017 (X1) + 37479.012 (X2) + 0.003 (X3) + 0.019 (X4) + e

The regression equation in this research can be described as follows:

The constant value (a) has a value of 68208828160,000, this shows that FDI, UMP, Tourism Industry and PAD are in a constant state and do not change (equal to zero), so Y has a value of 68208828160,000**.**

he value of the regression coefficient X1 = 0.017 billion rupiah means that if other independent variables have a fixed value and FDI has increased, then Y will experience a decrease of 0.017. billion rupiah.

The regression coefficient value X2 = 37479.012 million rupiah means that if another independent variable is fixed in value and the UMP increases, then Y will increase by 37479.012 million rupiah.

The regression coefficient value X3 = 0.003 billion rupiah means that if other independent variables have a fixed value and the Tourism Industry has increased, then Y will increase by 0.003 billion rupiah.

The regression coefficient value X4 = 0.019 trillion rupiah means that if other independent variables have a fixed value and Regional Original Incom increases, then Y will increase by 0.019 trillion rupiah.

T test

Variabel	T arithmetic	T table	Information
FDI (X1)	6.264	1.66196	Significant
Minimum wage (X2)	.398	1.66196	Not significant
Tourism Industry (X3)	.254	1.66196	Not significant
Regional original incom (X4)	4.904	1.66196	Significant

Table 4. T Test

H1 is known the sig value for the effect of X1 on Y is 0.00 < 0.05 and the value of T is 6.264 > T table 1.66196 so it can be concluded that H1, X1 has a significant effect on Y.

H2 is known the sig value for the effect of X2 on Y is 0.691 > 0.05 and the value of T is 0.398 < T table 1.66196 so it can be concluded that X2 has no effect on Y.

H3 is known the sig value for the effect of X3 on Y 0,800 > 0.05 and the value of T is calculated at 0.254 < T table 1.66196 so it is concluded that X3 has no effect on Y.

H4 is known the sig value for the effect of X4 on Y is 0.000 < 0.05 and the value of T is calculated at 4.904 > T table 1.66196 so that concluded that X4 has a significant effect on Y.

$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + e_{it}$$

Simultaneous F test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	296124222100000000000000.000	4	7403105553000000000000000.000	31.360	.000[b]
	Residual	200660856400000000000000.000	85	2360715957000000000000000.000		
	Total	496785078500000000000000.000	89			

Table 5. F Test

Based on the test results in the table above, the F test results above can be seen that the calculated F value is 31,360 with the F table being 2.47 so that calculated F > F table (31,360 > 2.47). it is known that the sig value is 0.000 < 0.05, so it can be concluded that the FDI variable (X1), Wage Level (X2), Tourism Industry variable (X3) and PAD variable (X4) simultaneously have a significant effect on (Y).

Coefficient of Determination Test (R2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.772[a]	.596	.577	485871995200.000

Table 6. Coefficient of Determination Test

An R value of 0.772 which shows that the correlation or relationship between the GDP dependent variable and the independent variable, namely FDI, Tourism Industry Wage Level and PAD.

R Square is 0.596 which means that the stock price can be predicted by CR and ROE by 59.6% while the rest is 40.4 % by other variables that are not included in this study.

The Adjust R Square value or determinant coefficient is 0.577 meaning 57.7% PDRB can be explained by X1, X2, X3 and X4 while the remaining 17.7% is influenced by other variables that are not studied in this study.

There are two options, using R Square or using Adjust R Square. If the number of variables is more than two, then Adjust R Square is used, so the value used as a determinant coefficient is 57.7%.

CONCLUSION

Based on the research that has been done using an in-depth analysis, the conclusion of this research is as follows:

The magnitude of FDI entering an area with a very dominant magnitude, so it can be concluded that FDI has a significant impact on GDP.

The wage level has no significant effect on the GDP.

The tourism sector has no significant effect on GDP.

Regional original income has a significant effect on GDP.

ACKNOWLEDGEMENT

Relating to the significant influence of direct foreign infestation on GRDP. This should be maintained in order to increase GRDP and then the government needs to create more efficient regulations to encourage increased foreign direct investment. so that it can increase GDP.

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