Journal of Taxation, Accounting, Management and Economics, Vol 2 Issue 1, January 2024
e-ISSN: 2988-7097
p-ISSN: 2988-7089

ANALYSIS OF ECONOMIC GROWTH FACTORS IN EAST JAVA CITIES SEEN FROM THE AVERAGE LENGTH OF SCHOOLING (RLS), HUMAN DEVELOPMENT INDEX (HDI) AND OPEN UNEMPLOYMENT RATE (TPT) BEFORE AND DURING THE PANDEMIC

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Abstract**:** *This research aims to examine the effect of Average Years of Schooling (RLS), Human Development Index (HDI), and Open Unemployment Rate (TPT) on economic growth in East Java cities during the pre-pandemic years (2017-2019) and during the pandemic years (2020-2021). This study uses quantitative analysis techniques The tools used in this study are normality test, multicollinearity test, and multiple linear analysis. The results of this study indicate that before the pandemic the variables of Average Years of Schooling (RLS), Human Development Index (HDI) and Open Unemployment Rate (TPT) had a significant effect on econom Operating Expenses Operating Income Operating Expenses Operating Income Operating Expenses Operating Income ic growth in East Java cities while during the pandemic experienced a very significant change, namely Average Years of Schooling (RLS), Human Development Index (HDI) and Open Unemployment Rate (TPT) had no significant effect on economic growth in East Java cities.*

Keywords**:** *RLS, HDI, TPT, Economic Growth, Covid-19 Pandemic.*

INTRODUCTION

The Covid-19 pandemic disaster is an outbreak that occurs in the world, both small, large and powerful countries. This pandemic has caused economic paralysis, both the world economy, countries and regions. Various areas of human life have been disrupted due to this pandemic. Both the health, education and economic productivity segments have an impact on economic growth.

Every region certainly wants its economy to continue to grow, economic growth illustrates the success of a region in running the economy. Economic growth is also useful for completing simskinny. A person is considered in a condition of poverty when he cannot meet his needs both food, clothing and shelter (Aflah, 2017). In another journal (Rasu et al., 2019) the inability of the economy to meet the proportions of human life in a region. One of the regions that continues to improve its economy is East Java, especially in its cities.

East Java Province is one of several provinces that has experienced rapid economicgrowth (Azizah et al., 2018). It was recorded that in 2022, the economy grew 2.39%. This is in line with cities in East Java, among these cities are Kediri, Blitar, Malang Surabaya and Batu. The city contributes a lot both in the field of goods, services and industry in the field of tourism.

Many researchers analyze economic growth with various factors. Among them is a journal by Yunan in 2009 with the title "Analysis of Factors Affecting Indonesia's Economic Growth". This study uses indicators of government expenditure, number of workers, bank credit and export value in 1988-2007 using ordinary least square (OLS) regression method. The study revealed that these factors significantly and simultaneously affect economic growth in Indonesia. This means that Indonesia's

economic growth will increase significantly in line with increasing bank credit, government spending and the labor force. While the export value has no effect on economic growth in Indonesia (Primandari, 2017).

Another research "The influence of education and HDI on economic growth in the Special Region of Yogyakarta. The study used the human development index (HDI), average length of schooling (RLS), long school expectancy (HLS), literacy rate (AHM) on economic growth in Yogyakarta in 2015-2020. Using the ordinary least square (OLS) regression method. The study revealed that HDI and AMH variables did not have a significant effect on economic growth in Yogyakarta while RLS and AMH variables had a significant positive effect on economic growth (Zulfikar, 2022).

Based on previous studies that reveal the influence of IPM, RLS, HLS, AHM, export value, AK and bank credit on economic organizations, the research will conduct research on economic growth factors that focus on human resources (human resources), namely RLS (average length of schooling), (HDI) human building index and TPT (open reconstruction rate).

LITERATURE REVIEW

Average years of schooling (RLS)/mean years of schooling (MYS) ishowlong the population has been in education with the age of 15 years and over who have completed formal education (Sumardi, 2013). The higher the RLS score, the higher the level of education that has been completed (Pradipta, 2018). The level of formal and non-formal education in the long term can affect poverty reduction (Thahir et al., 2021).

The Human Development Index (HDI) is a standard measure of the population in achieving education, health and a decent standard of living. HDI is also a benchmark for the success of a country or region in improving the quality of its population's economy. HDI also serves as a determination in the distribution of general allocation funds (DAU). There are four main areas that must be prioritized for human development, namely, sustainability, productivity, empowerment and equity (Herdini &; Masduki, 2021).To improve the human development index, it is necessary to improve the quality of life both physically, mentally and spiritually (Muhamad Basyrul Muvid &; Miftahuuddin, 2022).

The Open Reprimand Rate (TPT) is the presentation of the number of unemployed people compared to the number of the labor force. The higher the value of TPT (open reprimand) indicates the higher the number of people who are not absorbed in existing employment (Purwasih &; Soesatyo, 2017). Reprimand is one of the macro problems that has a significant direct impact on the economy (Probosiwi, 2016)

Poverty is a condition that involves the inability to meet the most miimum needs, especially in the consumption and income sectors (Jacobus et al., 2019). poverty can occur due to 1). Low productivity, 2). Lack of facilities and infrastructure, 3). An advanced monetary sector, 4). Lack of education, skills and skills, 5). Low HR quality, 6). Low savings in poor countries, 7). High population fertility, 8). The number of unemployed (Amali &; Devita, 2022).

From the presentation of data, previous research and theories that have been discussed, researchers will conduct a study entitled Analysis of Economic Growth Factors in East Java Cities Seen from the Average Length of School (RLS), Human Development Index (HDI) and Open Unemployment Rate (TPT) Before and During the Pandemic with multiple linear regression methods processed using SPSS 2023. The higher the HDI value of an area, the higher the human resources owned by the region (Utami et al., 2022).

RESEARCH METHOD

This research uses quantitative research methods with statistical test analysis methods. The first test, the normality test, is a testing technique used to see the

distribution of data within a group of variables will the spread be distributed normally or not In addition, with the multicollinearity test, this test is used to find out whether a relationship has been found between independent variables in the progressed data (Ningsih &; Dukalang, 2019). This regression test model will get a good value if the variable to be tested does not have multicollinearity symptoms in the data. Next, a multiple linear regression test was carried out. This analysis was conducted by researchers to see whether there is a bicausal relationship between X and Y variables or how much influence RLS, HDI and TPT have on Economic Growth in East Java cities. Three statistical tests were processed with the SPSS 23 program.

The population in this study is a city in East Java province which amounts to 9 cities. Namely Surabaya City, Blitar City, Madiun City, Kediri City, Malang City, Batu City, Mojokerto City and Pasuruan City. While the research variables use variables that are more inclined to human resources (HR), namely the Average Length of School (RLS), Human Development Index (HDI) and Open Unemployment Rate (TPT). The time span determined by the 5-year period, namely Before and During the Pandemic which is taken from the Central Bureau of Statistics (BPS) Indonesia.

Table 1. Data on RLS, HDI, TPT and Economic Growth of Cities in East Java Before the Pandemic (2017-2019)

CITY	TAHUN	RLS	IPM	TPT	PE
KEDIRI	2017	9.90	77.13	4.68	5.14
BLITAR	2017	9.89	77.10	3.76	5.78
MALANG	2017	10.15	80.65	7.22	5.69
PROBOLINGGO	2017	8.48	72.09	3.42	5.88
PASURUHAN	2017	9.09	74.39	4.64	5.47
MOJOKERTO	2017	9.98	76.77	3.61	5.65
MADIUN	2017	11.10	80.13	4.26	5.93
SURABAYA	2017	10.45	81.07	5.98	6.13
BATU	2017	8.46	74.26	2.26	6.56
KEDIRI	2018	9.91	77.58	3.56	5.43
BLITAR	2018	9.90	77.58	3.98	5.82
MALANG	2018	10.16	80.89	6.65	5.72
PROBOLINGGO	2018	8.49	72.53	3.56	5.93
PASURUHAN	2018	9.10	74.78	4.50	5.54
MOJOKERTO	2018	9.99	77.14	2.44	5.80
MADIUN	2018	11.11	80.33	3.80	5.96
SURABAYA	2018	10.46	81.74	6.01	6.19
BATU	2018	8.77	75.04	3.07	6.50
KEDIRI	2019	9.92	78.08	4.15	5.47
BLITAR	2019	10.10	78.56	4.54	5.84
MALANG	2019	10.17	81.32	5.88	5.73
PROBOLINGGO	2019	8.69	73.27	4.25	5.94
PASURUHAN	2019	9.11	75.25	4.89	5.56
MOJOKERTO	2019	10.24	77.96	2.63	5.65
MADIUN	2019	11.13	80.88	3.96	5.69
SURABAYA	2019	10.47	82.22	5.76	6.09
BATU	2019	9.06	75.88	2.42	6.51

Source: Data processed by researchers, 2023

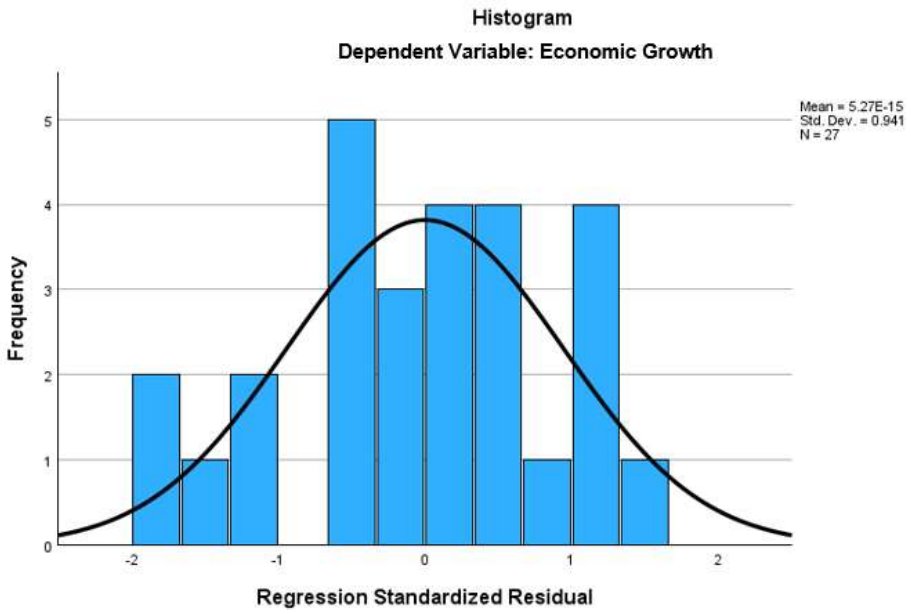
Table 2. Data on RLS, HDI, TPT and Economic Growth of Cities in East Java During the Pandemic (2020-2021)

CITY	YEAR	RLS	IPM	TPT	PE
KEDIRI	2020	9.93	78.23	6.21	-6.25
BLITAR	2020	10.11	78.57	6.68	-2.28
MALANG	2020	10.18	81.45	9.61	-2.26
PROBOLINGGO	2020	8.70	73.27	6.70	-3.64
PASURUHAN	2020	9.12	75.26	6.33	-4.33
MOJOKERTO	2020	10.25	78.04	6.74	-3.69
MADIUN	2020	11.14	80.91	8.32	-3.39
SURABAYA	2020	10.49	82.23	9.79	-4.85
BATU	2020	9.07	75.90	5.93	-6.46
KEDIRI	2021	10.15	78.60	6.37	2.50
BLITAR	2021	10.35	78.98	6.61	4.28
MALANG	2021	10.41	82.04	9.65	4.21
PROBOLINGGO	2021	8.95	73.66	6.55	4.06
PASURUHAN	2021	9.33	75.62	6.23	3.64
MOJOKERTO	2021	10.47	78.43	6.87	3.65
MADIUN	2021	11.37	81.25	8.15	4.73
SURABAYA	2021	10.50	82.31	9.68	4.29
BATU	2021	9.31	76.28	6.57	4.04

Source: Data processed by researchers, 2023

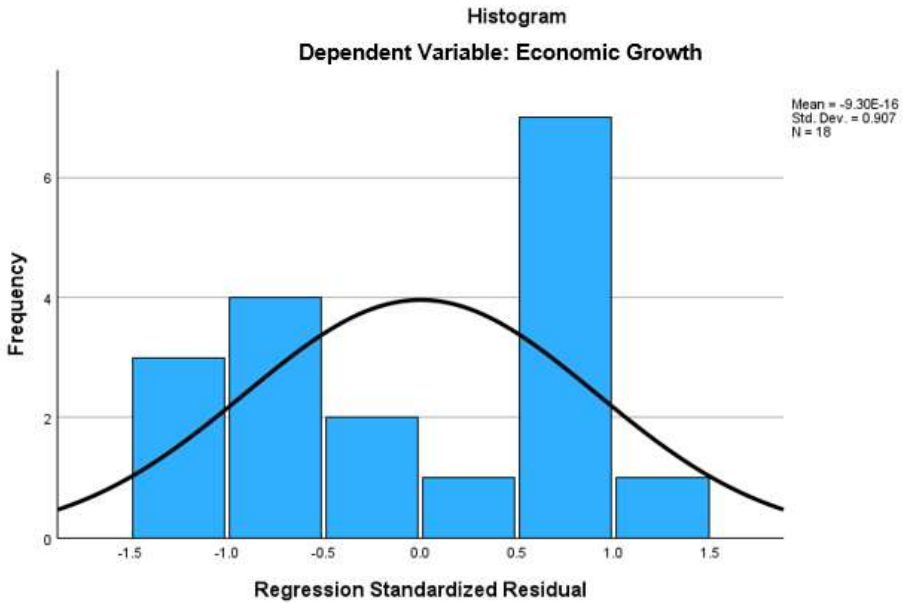
RESULTS AND DISCUSSION

1. Normality Test



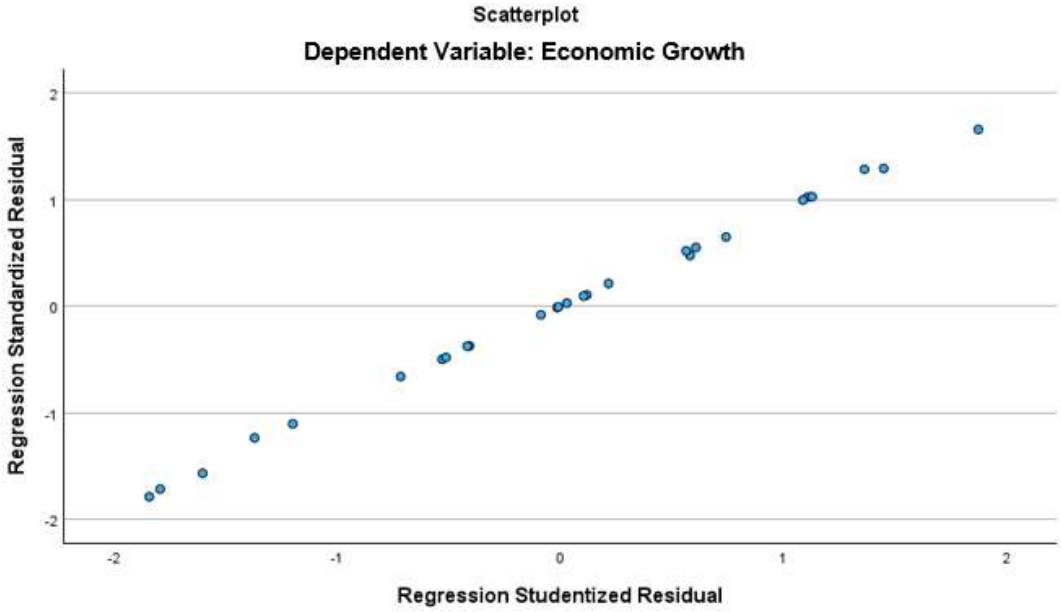
Source: Data processed by researchers, 2023

Figure 1. Histogram Data Normality Test Before the Covid-19 Pandemic



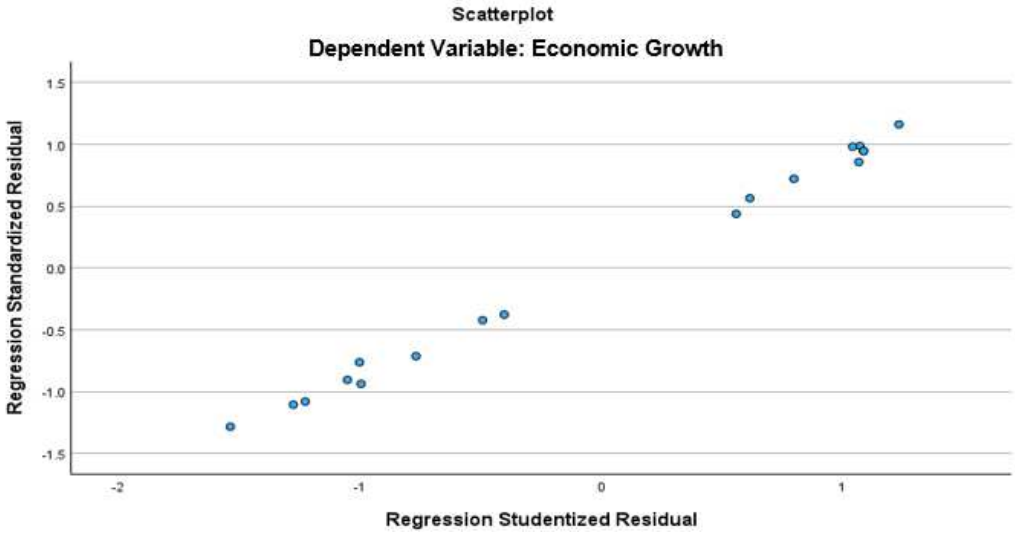
Source: Data processed by researchers, 2023

Figure 2. Data Histogram Normality Test During the Covid-19 Pandemic



Source: Data processed by researchers, 2023

Figure 3. Normality Test of Probability Plot Data Before the Covid-19 Pandemic



Source. Data processed by researchers, 2023

Figure 4. Normality Test of Probability Plot Data during the Covid-19 Pandemic

Based on the results of the histogram test data before the pandemic and during the pandemic in table 3 and table 4 show that the curved lines form symmetrical (U) so that it can be concluded that the data to be processed is distributed normally.

Based on the results of the probability plot test of data before the pandemic and during the pandemic in table 5 and table 6 shows that the plot data follows a normal line. So it can be concluded that the data to be tested is distributed normally.

2. Multicollinearity Test

Table 3. Multicollinearity Test of Data Before the Covid-19 Pandemic

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-3.056	2.460		-1.242	.227		
	RLS	-.675	.166	-1.610	-4.079	<,001	.149	6.704
	IPM	.211	.052	1.861	4.081	<,001	.112	8.947
	TPT	-.197	.056	-.757	-3.530	.002	.505	1.981

a. Dependent Variable: Economic Growth

Source: Data processed by researchers, 2023

Table 4. Multicollinearity Test Data During the Covid-19 Pandemic

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	37.704	64.889		.581	.570		
	RLS	3.670	3.600	.644	1.019	.325	.164	6.106
	IPM	-1.046	1.326	-.710	-.789	.443	.081	12.392
	TPT	1.017	1.613	.331	.630	.539	.238	4.207

a. Dependent Variable: Economic Growth

Source: Data processed by researchers, 2023

Based on the results of the multicollinearity test before the pandemicin table 7 shows that the VIF value of the RLS, HDI and TPT variables is 6.704 values smaller than 10.00 (6.70<10.00) and the tolerance value of the RLS, HDI and TPT variables is 0.149 greater than 0.10 (0.14>0.10) so that it can be concluded that the pre-pandemic data regression model does not have multicollinearitysymptoms.

Based on the results of the multicollinearity test during the pandemicin table 8 shows that the VIF value of the RLS, HDI and TPT variables is 6.106 the value is smaller than 10.00 (6.10<10.00) and the tolerance value of the RLS, HDI and TPT variables is 0.164 greater than 0.10 (0.16>0.10) so that it can be concluded that the data regression model during the pandemic does not have symptoms of multicollinearity.

3. *Multiple Linear Analysis*

Table 5. Multiple Linear Regression Analysis of Data Before the Covid-19 Pandemic

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-3.056	2.460		-1.242	.227		
	RLS	-.675	.166	-1.610	-4.079	<,001	.149	6.704
	IPM	.211	.052	1.861	4.081	<,001	.112	8.947
	TPT	-.197	.056	-.757	-3.530	.002	.505	1.981

a. Dependent Variable: Economic Growth

Source: Data processed by researchers, 2023

Table 6. Multiple Linear Regression Analysis of Data During the Covid-19 Pandemic

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	37.704	64.889		.581	.570		
	RLS	3.670	3.600	.644	1.019	.325	.164	6.106
	IPM	-1.046	1.326	-.710	-.789	.443	.081	12.392
	TPT	1.017	1.613	.331	.630	.539	.238	4.207

a. Dependent Variable: Economic Growth

Source: Data processed by researchers, 2023

Based on the results of the partial t test, the data before the pandemic in table 7 shows that the calculated t value and significance are as follows:

1. Average length of schooling (RLS)
   The value of t = -4.079 and the value of Sig. = <0.001 is smaller than 0.05 (<0.001<0.05), meaning that the average length of schooling (RLS) has a negative and significant influence on economic growth in East Java cities.
2. Human Building Index (HDI)
   The value of t = 4.701 and the value of Sig. = <0.001 is smaller than 0.05 (<0.001<0.05) meaning that the Human Building Index (HDI) has a positive and significant influence on economic growth in East Java cities.
3. Open Reprimand Rate (TPT)
   The value of t = -3.530 and the value of Sig. = 0.002 is smaller than 0.05 (<0.002<0.05) meaning that the level of open reprimanding (TPT) has a negative and significant influence on economic growth in East Java cities.

The more people in cities in East Java who receive higher education, the fewer productive workers will be. Because of the productive adolescent population, many are

still in education. So there will be a lot of expenses for education costs and no income from work. This will certainly make the economy of cities in East Java decline.

The higher the human building index, the level of education, health and well-being of a decent life will also increase. This will certainly affect the value of economic growth in East Java cities.

The higher the level of reprimand, the lower the economic growth in East Java cities. This is because the more reprimands, the higher the burden on the government and the burden on the population and the decrease in government and population income.

Based on the results of the partial t test, the data during the pandemic in table 8 shows that the calculated t value and significance are as follows:

1. Average length of schooling (RLS)
   The value of t = 1.019 and the value of Sig. = 0.325 is greater than 0.05 (0.325 <0.05) meaning that the average length of schooling (RLS) has a positive and insignificant influence on economic growth in East Java cities.
2. Human Building Index (HDI)
   The value of t = -0.789 and the value of Sig. = 0.443 is greater than 0.05 (0.443 <0.05) meaning that the Human Building Index (HDI) has a negative and insignificant influence on economic growth in East Java cities.
3. Open Reprimand Rate (TPT)
   The value of t = 0.630 and the value of Sig. = 0.539 is smaller than 0.05 (0.539 <0.05) meaning that the level of open reprimanding (TPT) has a positive and insignificant influence on economic growth in East Java cities.

Of the three tests above, all three showed opposite results from data processed before the pandemic. The old average (RLS) of schools no longer affects economic growth because all schools are closed and students carry out educational activities online. The Human Development Index (HDI) also has no effect on economic growth because during the pandemic education, health and welfare declined. The open reprimand rate (TPT) is also uncontrollable. Many companies have terminated employment relations (layoffs) so that this variable also does not have a significant effect on economic growth.

CONCLUSIONS AND SUGGESTIONS

Based on multiple linear regression analysis, it was found that before the pandemic, the variables Average Length of Schooling (RLS), Human Building Index (HDI) and Open Unemployment Rate (TPT) simultaneously affected economic growth while during the pandemic there were significant changes, namely the Average Length of School (RLS), Human Building Index (HDI) and Open Reprimanding Rate (TPT) variables did not significantly affect the economic growth of cities in East Java.

This very significant change was influenced by the Covid-19 pandemic which disrupted the stability of education, health and economic activities which resulted in changes in results and the influence of variables Average Length of School (RLS), Human Development Index (HDI) and Open Unemployment Rate (TPT).

The existence of the COVID-19 pandemic has made the variables of Average Length of Schooling (RLS), Human Development Index (HDI) and Open Unemployment Rate (TPT) have noeffect on economic growth . It is hoped that the city government in East Java can return to stabilize the above variables so that these variables return to normal as before the pandemic.

For further research, it is expected to be able to conduct the same test with different variables to determine the effect of the variables Average Length of School (RLS), Human Building Index (HDI) and Open Unemployment Rate (TPT) on broader economic growth. Both in areas that we have researched or apply it in other areas.

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