

Performance Analysis of Regional Economic Development in West Java, Indonesia

Dwi Hastuti Lestari Komarlina^{1*}, Andi Rustandi¹

¹Faculty of Economics and Business, Siliwangi University, Indonesia

DOI: [10.36348/sjef.2023.v07i03.008](https://doi.org/10.36348/sjef.2023.v07i03.008)

| Received: 16.02.2023 | Accepted: 22.03.2023 | Published: 28.03.2023

*Corresponding author: Dwi Hastuti Lestari Komarlina
Faculty of Economics and Business, Siliwangi University, Indonesia

Abstract

The purpose of this research is to find out and analyze the performance of local governments through the developmental achievements of unemployment, inflation, poverty, inequality, income distribution and economic growth in West Java over the last five years. Also to find out the dominance of the performance of the West Java Government based on targets on regional macroeconomics for the last five years. The research method uses descriptive case studies to analyze the performance of the West Java Provincial Government on regional macroeconomic variable data series which are estimated by each of the previous achievements and target plans. The results show that the development of the achievement of regional macroeconomic variables in the implementation process is a form of West Java Provincial Government performance that considers the evaluation of previous achievements and targeting orientation. In addition, efforts to maintain regional macroeconomic variables are trying to reduce unemployment, poverty, and the distribution of income balance. Meanwhile, the control is carried out on achieving inflation and the economic growth rate.

Keywords: Unemployment, Inflation, Poverty, Inequality, Growth.

Copyright © 2023 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

INTRODUCTION

Economic development has an important role in improving people's quality of life, reducing poverty, increasing employment opportunities, and creating sustainable economic growth. In a global context, economic development also contributes to world stability and peace through economic cooperation between countries.

According to research conducted by Aghion and Howitt (2009), economic development can increase productivity and innovation in a country, which in turn can accelerate economic growth and create jobs. In addition, economic development can also improve people's welfare through increased access to better health, education and infrastructure services.

Examining the performance of regional development has several interests, including: Assisting in evaluating the effectiveness and efficiency of regional development programs that have been implemented, Demonstrating regional performance in achieving predetermined development goals, be it in terms of economic growth, poverty reduction, or

community welfare, Shows differences in performance between regions so that it can assist in identifying areas that need special attention in terms of development, Provides useful information in determining more effective and efficient regional development policies and strategies.

In the Indonesian context, research on regional development performance has been carried out by several researchers such as Siregar, Siahaan, and Silaban (2018) who examined development performance in the province of North Sumatra. They found that there is a gap between urban and rural development levels in the province, and the need for improvements to infrastructure and the distribution of development in more remote areas.

The implementation of regional economic development is inseparable from the objective of achieving macroeconomic variable conditions as the performance of the regional government to implement it. Likewise in Indonesia, especially in the West Java Government doing the same thing. Its performance is related to realizing regional macroeconomic achievements by considering 2 (two) indicators, namely

evaluation of previous results and targets to be achieved. Several macroeconomic variables were observed in this study, namely unemployment, inflation, poverty, unequal income distribution, and the economic growth rate (Wahyu, 2014).

The labor force is not accompanied by an increase in the Labor Force Participation Rate (TPAK). In August 2018 there were 22.63 million people, an increase compared to August 2017, but the TPAK actually decreased by 0.42%. The percentage of poor people in March 2018 was recorded at 7.45%, a decrease of 0.38% compared to September 2017. However, the disparity in urban and rural poverty is quite high. In March 2018, in urban areas it was 6.47% and in rural areas it was 10.25%. Inflation is still highly fluctuating, in 2016 it was 2.73%, 2017 it was 3.63%, and 2017 in the third quarter it was 3.17%. Inequality in income distribution can be seen from the Gini ratio index, during 2018 it was 0.405 above the national Gini ratio which was 0.389 (BPS, 2019).

The Economic Growth Rate (LPE) fluctuated, namely in the third quarter of 2018 it was 5.58% (yoy), slowing compared to the second quarter of 2018 (5.65% yoy), but higher than the same period last year.

Open Unemployment Rate, Inflation Rate, Poverty, Income Inequality Distribution, and Economic Growth Rate (LPE) as macroeconomic variables in West Java were analyzed in 5 (five) multiple regression functional relationship models, each of which is the estimator variable, namely the achievement factor previously, as well as the annual target factors to be achieved from each of these macroeconomic variables.

According to Indonesia's Central Bureau of Statistics (BPS), the open unemployment rate is "the percentage of the labor force that is not working, looking for work, and willing to work in a given period." The open unemployment rate is often an important indicator in evaluating a country's economic health (BPS, 2022).

Inflation is a continuous increase in the prices of goods and services in a country over a certain period of time. According to researchers Campbell and Mankiw (1987), inflation can be interpreted as "a continuous and continuous increase in the price level over a long period". Increases in prices can be caused by various factors such as increased production costs, higher demand than supply, or a decrease in currency exchange rates. High and uncontrolled inflation can have a negative impact on the economy, including reducing consumer purchasing power, increasing borrowing costs, and causing economic instability (Campbell and Mankiw, 1987).

According to the World Bank, poverty is a condition in which a person or group cannot access

basic resources such as food, clean water, adequate housing, education and adequate health services (World Bank, 2022). meanwhile According to Sen (1981), poverty is the inability of a person to meet the basic needs of life, such as food, housing, health, and education, which can result in hunger, malnutrition, and death.

Economic growth rate is the change in the amount of goods and services produced by an economy in a certain period, usually measured by using the growth of Gross Domestic Product (GDP) or gross national income. The economic growth rate is an important indicator of a country's economic health and can affect the prosperity and well-being of its people (Mankiw, 2007; Acemoglu *et al.*, 2015).

Several studies have used these variables to analyze macroeconomics (Aziz, S. A., & Bashir, F. (2016), Islam, M. A., Islam, M. M., & Khatun, M. (2019), Kurniawan, R. (2019), Leon, G., & Martínez, F. J. (2018), and ripathi, N., & Mishra, S. (2021)

METHODOLOGY

The method used is descriptive case study on regional macroeconomic variables. The analysis tool, interpretation of data on unemployment, inflation, poverty, inequality of income distribution, and economic growth rate in West Java is based on the previous performance estimator and target plan achievement, by analyzing the parameters of the econometric functional model.

The research model is in the form of a multiple regression equation as follows:

$$Y_i = \beta_{0i} + \beta_{1i} X_{1i} + \beta_{2i} X_{2i} + e_i$$

Information:

Y_i = Each variable is estimated

β_{0i} = Intercept

β_{1i} = Coefficient estimator Previous achievement

β_{2i} = Coefficient of target plan estimator

X_{1i} = Previous Achievement Variable

X_{2i} = Target plan variable

Data Collection and Analysis Techniques

The data collected, secondary data obtained from the Central Statistics Agency (BPS), includes data on Unemployment, Inflation, Poverty, Inequality in Income Distribution, and Economic Growth in West Java and observed their respective links with previous achievements and targets during the 2001-2018 period .

a. Research object

The object of research is to analyze data on macroeconomic variables of Unemployment, Inflation, Poverty, Inequality of Income Distribution, and the Rate of Economic Growth in West Java in the period 2001 to.d. 2018.

b. Analysis Tools

Data analysis was carried out through literature studies, which are related to paradigms, theories, concepts, and models. Furthermore, the interpretation of the parameters of the correlation coefficient (r), the coefficient of determination (r²) testing the t-statistics

and F-statistics, the regression coefficient (βi) is performed.

c. Research paradigm

The flow of the research design is as follows:

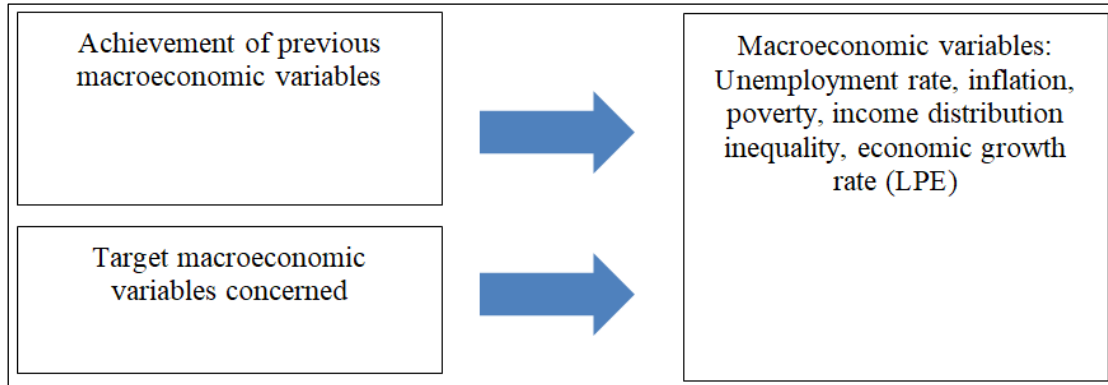


Figure 1: Research Design

Meanwhile, in the research paradigm, namely:

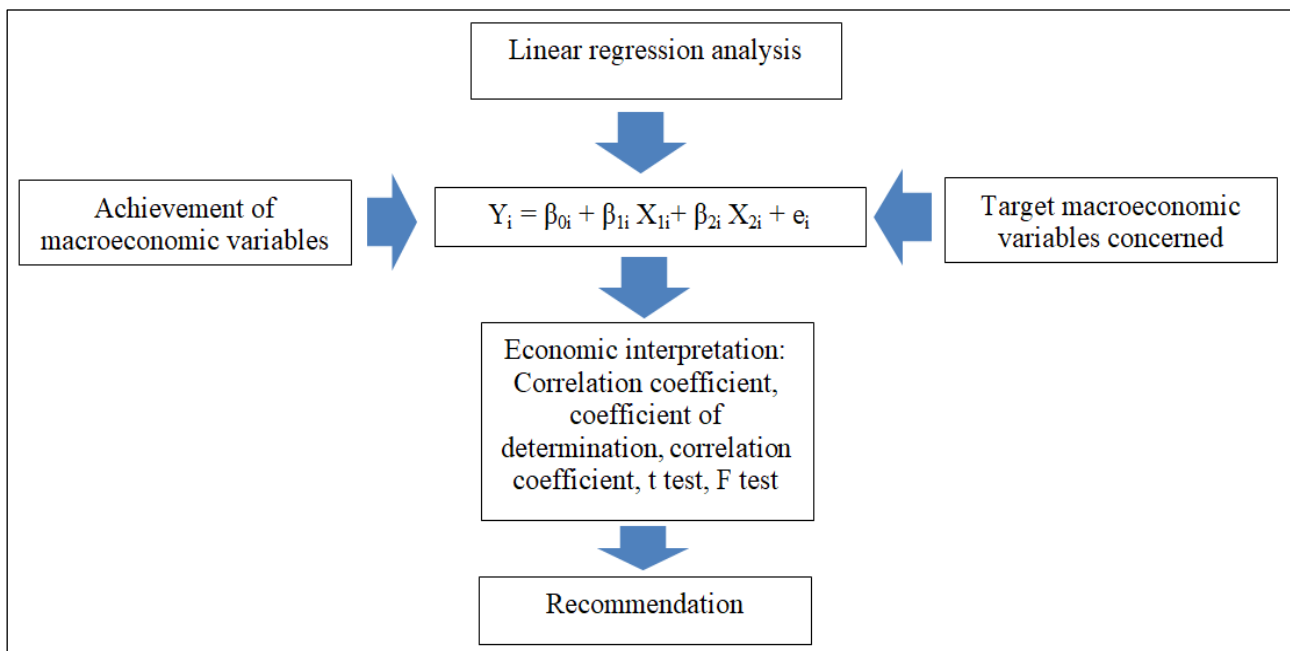


Figure 2: Research Paradigm

RESULTS AND DISCUSSION

Based on West Java BPS data, the open unemployment rate (TPT) ranks first compared to other cities in Indonesia based on TPT developments during the 2001-2018 period. The achievement of the development of this TP is inseparable from the influence of the consideration of previous achievements

and the target planning. Unemployment data on these observations as shown in the table 1.

From these data, the results of processing using e-views show that the functional relationship between the unemployment rate and previous unemployment achievements and unemployment targets is in table 2:

Table 1: Unemployment Data, Previous Achievements and Targets in West Java 2001-2018 (in %)

Year	Unemployment	previous achievements	Target
2001	11.77	0	10.03
2002	13.19	11.77	12.12
2003	7.69	13.19	11.54
2004	13.69	7.69	12.01
2005	15.53	13.69	11.77
2006	14.59	15.53	12.35
2007	13.08	14.59	11.67
2008	12.28	13.08	11.50
2009	10.96	12.28	11.00
2010	10.33	10.96	10.87
2011	9.96	10.33	10.00
2012	9.08	9.96	9.50
2013	9.16	9.08	8.80
2014	8.45	9.16	8.00
2015	8.72	8.45	7.50
2016	8.89	8.72	7.00
2017	8.22	8.89	8.00
2018	8.17	8.22	7.90

Source: Results of compilation and calculation

Table 2: Eviews Output 1

Variable	Coefficient	Std. Error	t-stat	Prob.
C	0.040	2.340	0.017	0.986
previous achiv.	0.050	0.260	0.194	0.848
Target	1.000	0.340	2.960	0.010
R-Squared	0.607	Mean dependent var		10.710
Adj. R-Squared	0.550	S.D. dependent var		2.510
F-stat	10.810	DW		
Prob(F-Stat)	0.001			

So that the regression model can be formed as follows:

$$Y_p = 0.040 + 0.050X_{1p} + 1.000X_{2p}$$

The joint effect of the previous achievement (X_{1p}) and the target (X_{2p}) on the achievement of the unemployment rate in West Java was 55.09%, the remaining 44.91% was the influence of other factors. Partially the effect of the target is significant (prob.= 0.0101), while the effect of previous achievements is not significant (prob.= 0.848).

The regression model formed shows that the target coefficient is greater than the previous

achievement coefficient where $1.001 > 0.050$, so it means that target considerations are more dominant in influencing the performance of the West Java Province regional government in determining the achievement of the open unemployment rate.

Furthermore, for the development of the inflation rate, the achievement is also inseparable from the consideration of previous achievements and planned targets. During the period 2001 to.d. 2018 the three data are arranged in the table 3.

Table 3: Inflation Data in West Java during 2001 – 2018

Year	Inflation	previous achievements	Target
2001	9.50		9.20
2002	8.78	9.50	8.30
2003	5.69	8.78	8.10
2004	7.56	5.69	8.00
2005	18.51	7.56	15.15
2006	6.15	18.51	8.50
2007	5.10	6.15	8.20
2008	11.11	5.10	8.15
2009	2.10	11.11	7.58
2010	6.43	2.10	7.92
2011	3.10	6.43	6.50
2012	3.86	3.10	6.30
2013	9.15	3.86	9.15
2014	7.41	9.15	7.00
2015	2.73	7.41	7.30
2016	2.75	2.73	7.30
2017	3.63	2.75	5.00
2018	3.54	3.63	5.00

Source: West Java BPS, compiled by researchers

Based on these data, after processing, the results are obtained:

Table 4: Eviews Output 2

Variable	Coefficient	Std. Error	t-stat	Prob.
C	-5.62	2.066	-2.72	0.017
previous achiv.	-0.136	0.138	-0.98	0.343
Target	1.638	0.256	6.390	0.000
R-Squared	0.747	Mean dependent var		6.329
Adj. R-Squared	0.710	S.D. dependent var		4.070
F-stat	20.620	DW		
Prob(F-Stat)	0.000			

From these results a functional model can be developed to estimate the inflation rate in West Java based on previous inflation achievements and the inflation target, namely:

$$YI = -5.62 + -0.136 X_{1t} + 1.638 X_{2t}$$

Together, the previous achievement factor and target affected 71.04% of West Java's inflation rate and other factors influenced the remaining 28.96%. Partially, the target's effect on the inflation rate's achievement is significant (prob.= 0.000), while the

previous achievement is negatively correlated and not significant (prob.= 0.343).

In the regression model, the target coefficient is larger (dominant) than the previous achievement coefficient, namely $1.636297 > -0.136113$, so that the consideration of the target turns out to be more dominantly carried out by the regional government of the Province of West Java as a performance in controlling inflation.

For the poverty level in West Java, the data has been presented in table 5.

Table 5: Poverty Data in West Java for 2001 – 2018 (in %)

Year	Poverty	previous achievements	Target
2001	13.40		12.50
2002	12.90	13.40	10.67
2003	12.10	12.90	10.55
2004	12.30	12.10	10.25
2005	13.06	12.30	11.14
2006	14.49	13.06	12.24
2007	13.55	14.49	11.35
2008	13.01	13.55	11.80
2009	11.96	13.01	10.12
2010	11.27	11.96	9.45
2011	10.65	11.27	9.80
2012	9.89	10.65	8.13
2013	9.61	9.89	7.80
2014	9.18	9.61	6.80
2015	9.57	9.18	5.90
2016	8.77	9.57	5.00
2017	7.83	8.77	7.97
2018	7.25	7.83	7.30

Source: West Java BPS, compiled by researchers

After processing the result is:

Table 6: Eviews Output 3

Variable	Coefficient	Std. Error	t-stat	Prob.
C	-0.292	1.022	-0.286	0.779
previous achiv.	0.802	0.175	4.584	0.000
Target	0.237	0.160	1.476	0.162
R-Squared	0.912	Mean dependent var		11.029
Adj. R-Squared	0.900	S.D. dependent var		2.124
F-stat	73.340			
Prob(F-Stat)	0.000			

Based on the processing results, a poverty estimation model is obtained as a function of previous inflation results and the poverty target:

$$Y_M = -0,292 + 0.802X_{1M} + 0,237X_{2M}$$

The previous achievement factors (X_{1M}) and targets (X_{2M}) had an effect of 90.04% on the poverty rate in West Java and the remaining 9.96% was the influence of other factors. Partially, the effect of the previous achievement is significant (prob.= 0.000) on the poverty rate achievement, while the effect of the target factor is not significant (prob.= 0.1619).

The previous achievement coefficient was larger (dominant) than the target coefficient (X_{2M}), namely $0.802 > 0.237$, so that consideration of previous achievement factors seemed to be more dominant as a measurement of the performance of the West Java Province regional government in determining the poverty rate in West Java.

Regarding the level of income distribution, the Regional Government of West Java Province is trying to equalize income to reduce the gap between districts/cities in the work area of West Java Province. Data on the development of inequality results are listed in table 7.

Table 7: Data on Inequality of Income Distribution in West Java 2001 – 2018 (in %)

Year	inequality	previous achievements	Target
2001	0.30		0.28
2002	0.30	0.30	0.29
2003	0.31	0.30	0.30
2004	0.32	0.31	0.10
2005	0.33	0.32	0.31
2006	0.34	0.33	0.33
2007	0.36	0.34	0.29
2008	0.36	0.36	0.33
2009	0.37	0.36	0.32
2010	0.36	0.37	0.31
2011	0.41	0.36	0.37
2012	0.42	0.41	0.39
2013	0.41	0.42	0.39
2014	0.40	0.41	0.37
2015	0.43	0.40	0.36
2016	0.40	0.43	0.35
2017	0.39	0.40	0.39
2018	0.41	0.39	0.39

Source: West Java BPS, compiled by researchers

The data above after being processed using the results obtained as below:

Table 8: Eviews Output 4

Variable	Coefficient	Std. Error	t-stat	Prob.
C	0.063	0.038	1.647	0.122
previous achiv.	0.765	0.141	5.399	.000
Target	0.087	0.088	0.979	0.344
R-Squared	0.832	Mean dependent var		0.372
Adj. R-Squared	0.809	S.D. dependent var		0.040
F-stat	34.818			
Prob(F-Stat)	0.000			

So that an econometric model can be developed to estimate income distribution inequality, namely:

$$Y_T = 0,063 + 0.765X_{1T} + 0,087X_{2T}$$

The effect of previous results (X_{1T}) and targets (X_{2T}) together on the level of inequality in income distribution in West Java is around 80.87%, while the influence of other factors explains the remaining 19.13%. Meanwhile, partially the previous achievement had a significant effect (prob. = 0.000), while the effect of the target factor was not significant (prob. = 0.344).

Observing the magnitude of the coefficient of each variable in the regression model, it turns out that

the previous achievement coefficient (X_{1T}) is larger (dominant) than the target coefficient (X_{2T}), namely $0.765 > 0.087$, so it can be interpreted that the previous achievement factor is more dominant than the target consideration as measurement of the performance of the regional government of West Java Province in determining the level of inequality in income distribution in West Java.

In consideration of determining the macroeconomic variable Economic Growth Rate (LPE), observations have been made on LPE data from 2001 to d. 2018 whose data has been compiled as shown in table 9.

Table 9: LPE Data in West Java Year 2001 – 2018 (in %)

Year	LPE	previous achievements	Target
2001	3.89		4.01
2002	3.93	3.89	4.00
2003	4.38	3.93	4.20
2004	5.05	4.38	5.50
2005	5.62	5.05	5.78
2006	6.01	5.62	6.50
2007	6.41	6.01	6.60
2008	6.23	6.41	6.50
2009	4.20	6.23	4.70
2010	6.22	4.20	6.50
2011	6.50	6.22	6.75
2012	6.50	6.50	6.80
2013	6.06	6.50	5.80
2014	5.07	6.06	6.50
2015	5.03	5.07	6.80
2016	5.66	5.03	6.90
2017	5.29	5.66	5.76
2018	5.64	5.29	5.81

Source: West Java BPS, compiled by researchers

Based on table 9 data, after processing using eviews software, the following results are obtained:

Table 10: Eviews Output 5

Variable	Coefficient	Std. Error	t-stat	Prob.
C	0.856	0.909	0.94	0.362
previous achiv.	0.150	0.158	0.948	0.358
Target	0.645	0.158	4.125	0.001
R-Squared	0.673	Mean dependent var		5.517
Adj. R-Squared	0.627	S.D. dependent var		0.812
F-stat	14.435			
Prob(F-Stat)	0.000			

From the processing results, an econometric model is obtained to estimate the LPE:

$$Y_L = 0,856 + 0.150X_{1L} + 0,6451X_{2L}$$

The previous achievement (X_{1L}) and target (X_{2L}) together had an effect of around 62.68% on the LPE in West Java while the influence of other factors explained the remaining 37.32%. Viewed partially, the effect of the target is significant (prob.= 0.0010) on LPE achievement, while the effect of previous achievement factors is not significant (prob.= 0.3589).

The target coefficient (X_{1L}) is larger (dominant) than the previous achievement coefficient (X_{2L}), namely $0.645 > 0.150$, so it is interpreted that the target factor is more dominant than the previous achievement considerations in measuring government performance in determining the level of LPE in West Java.

Econometric models for estimating each government's performance in achieving regional macroeconomic variables in West Java Province taking into account previous achievement factors and target factors, the results can be formulated as shown in the following table.

Table 11: Formulation of Macroeconomic Performance Achievements of the West Java Provincial Government

Macroeconomic var	Estimator					
	previous achievements			Target		
	correlation direction	domination	sig.	correlation direction	domination	sig.
open unemployment rate	positif	not dominant	not significant	positif	dominant	significant
inflation rate	negatif	not dominant	not significant	positif	dominant	significant
Poverty	positif	dominant	significant	positif	not dominant	not significant
inequality of income distribution	positif	dominant	significant	positif	not dominant	not significant
LPE	positif	not dominant	not significant	positif	dominant	significant

Source: Processed results

The performance of the West Java Provincial Government in achieving regional macroeconomic variable magnitudes for Poverty and Inequality in Income Distribution is more dominated by consideration of previous level achievement factors which have a significant influence on achievement.

As for the performance achievements of the Open Unemployment Rate, Inflation Rate, and LPE the considerations are more dominated by target orientation considerations, which have a significant effect.

CONCLUSION

From the results and discussion of each research, it is concluded and recommended as follows:

1. Several macroeconomic developments in the West Java region observed in this research over the last five years are as follows:
 - a. The Open Unemployment Rate (TPT) in West Java is the highest compared to other cities in Indonesia, and the percentage always exceeds the national figure. The main cause of unemployment is influenced by the condition of the large number of industries, thus attracting people from outside West Java and industrial migration occurs so that jobs are reduced. The average TPT in West Java for the last 5 (five) years is 8.49%.
 - b. Inflation in West Java tends to be caused more by increases in the volatile foods category. The average inflation during the last five years of observation was 4.01%.
 - c. The Government of West Java continues to reduce the number of poor people, and the average for the last five years has been 8.25%.
 - d. Inequality in the distribution of people's income is indicated to be uneven in West Java Province. Based on the Gap Figure (Gini ratio) it has reached 0.393% and is always above the national figure of 0.391%. The average inequality in West Java for the last five years has been 0.40%.

- e. The development of the economic growth rate has fluctuated, where in the last five years (2014 to 2018) the average was 5.34%.
2. The performance of the West Java Provincial Government in efforts to achieve the level of Poverty and Inequality of Income Distribution in its considerations is more dominant and significantly influenced by the previous level of achievement factors than the consideration of target factors. As for the macroeconomic variables, the Open Unemployment Rate, the Inflation Rate, and the Economic Growth Rate, it is clear that the performance control for performance tends to be dominant and significantly influenced by the target achievement factor.

The recommendations of this study are:

1. Efforts to maintain the regional macroeconomic development of West Java Province as a performance, that in addition to achievement oriented towards previous achievements and targeting should also consider aspects of the interrelationship of economic impacts between each macroeconomic variable.
2. Since there is a not too large influence of the two previous achievement factors and the targeting factor on the achievement of the Open Unemployment Rate (only 55.09%) and the Economic Growth Rate (62.67%), it is suspected that in other factors there are factors that have the potential to influence significant. Therefore it is suggested that further research be carried out to identify this matter.

Based on the results of this research, the researcher provides a statement for scientific development, namely The achievement of regional macroeconomic variables has 2 (two) tendencies as a reference for local government performance, namely making efforts to reduce unemployment, poverty, distribution of income balance. While considering the performance of controlling inflation and the rate of economic growth.

REFERENCES

- Acemoglu, D., Laibson, D. and List, J.A., 2015. *Microeconomics*. Pearson.
- Aghion, P., & Howitt, P. (2009). *The economics of growth*. MIT press
- Aziz, S. A., & Bashir, F. (2016). Macroeconomic Determinants of Poverty in Pakistan: A Time Series Analysis. *International Journal of Economics and Financial Issues*, 6(2), 629-635
- Badan Pusat Statistik. (2022). Tingkat Pengangguran Terbuka (TPT) Menurut Provinsi [Online]. Tersedia di: <https://www.bps.go.id/indicator/12/1939/1/tingkat-pengangguran-terbuka-tpt-menurut-provinsi.html>
- BPS. 2019. *Statistic Center of Indonesia*.
- Campbell, J. Y., & Mankiw, N. G. (1987). Are Output Fluctuations Transitory? *Quarterly Journal of Economics*, 102(4), 857-880.
- Islam, M. A., Islam, M. M., & Khatun, M. (2019). Relationship between Income Inequality and Economic Growth in Bangladesh: An Empirical Study. *International Journal of Innovation, Creativity and Change*, 5(1), 126-135.
- Kurniawan, R. (2019). The Effect of Unemployment, Inflation, and Economic Growth on Poverty in East Java Province. *Journal of Indonesian Economy and Business*, 34(1), 23-40.
- Leon, G., & Martínez, F. J. (2018). Economic Growth and Income Inequality: The Role of Fiscal Policies. *Economies*, 6(2), 23.
- Mankiw, N. G. (2007). *Principles of economics*. Cengage Learning.
- Sen, A. (1981). *Poverty and Famines: An Essay on Entitlement and Deprivation*. Oxford University Press.
- Siregar, R. Y. D., Siahaan, S., & Silaban, R. (2018). Evaluasi Kinerja Pembangunan Provinsi Sumatera Utara Tahun 2014-2016. *Jurnal Administrasi Publik*, 6(1), 1-11
- Tripathi, N., & Mishra, S. (2021). The Relationship between Inflation and Economic Growth in India: A Time Series Analysis. *Journal of Asian Finance, Economics, and Business*, 8(3), 549-556
- Wahyu, T. (2014). Identifikasi vairbael makroekonomi di Provinsi Jawa Tengah. *JURNAL EKONOMI KUANTITATIF TERAPAN*, 7(2).
- World Bank. (2022). What is Poverty? [Online]. <https://www.worldbank.org/en/topic/poverty/brief/what-is-poverty>