

# Industrial Influence Currently & Great on Manufacturing Industry Performance and its Impact on Economic Growth (GRDP) in Banten Province, 2016 – 2021

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**Abstract:-** The purpose of this study is to determine the effect of medium and large industries on the performance of the manufacturing sector and the implications for economic growth. The approach used is a quantitative methodology, and the dataset used consists of time series data from 2016 to 2021, obtained from the Central Statistics Agency for Banten Province (BPS Banten). In addition, library data provided additional support for this research. To test the hypothesis, especially the effect of medium and large industries on the performance of the manufacturing industry and its effect on economic growth (GRDP), ECM analysis techniques are used to determine the relationship between the independent variables and the dependent variable. The findings of this study indicate that the results of the ECM estimation further indicate that only the manufacturing industry performance variable has an important impact on short-term economic growth.

**Keywords:-** Economic Growth, Manufacturing, Industry.

## I. INTRODUCTION

Industry is a discipline that uses various skills, diligent effort and special tools in the field of processing and distribution of agricultural products as its foundation. Therefore, industry is widely recognized as the most important factor in meeting the economic needs related to the planet, especially after agriculture, plantations, and mining, which shows a strong correlation with the terrestrial world. According to Purwita (2015), industrial locations are increasingly moving away from the mainland, which serves as a fundamental economic, cultural, and political foundation.

The industrial sector in a broad sense can be interpreted as a productive and commercial business which includes human economic activities. In accordance with Law no. 5 of 1984, what is meant by "industry" is an economic business engaged in the conversion of raw materials, semi-finished goods, or finished goods into goods whose use is increased, which includes the field of industrial engineering. According to Siahaan (2019), the industrial sector is currently the leading sector in economic activity.

In a broad sense, the industrial sector can be classified into three different categories, namely large-scale industry, medium-scale industry and small-scale industry. The size of the workforce usually ranges from 20 to 99 people, and the last category represents small industries with around 5 to 19 employees. It should be noted that, on average, these entities do not have legal entity status (Lesmana, 2014).

Industry in Indonesia is a significant economic component (Azwinata et al., 2023). The presence of industry facilitates the rapid growth and improvement of our economy, thereby causing a transformative shift in the structure of the national economy. In Indonesia, the progress of various industries with various activities contributes to facilitating development efforts. Currently, many countries in the world continue to strive to improve their economy. The procedures carried out relate to industrial affairs. This industry is undeniably a tremendous factor in facilitating trade. They engage in competition among themselves to secure positions in the global market. Due to free trade in the global market, countries are involved in trading activities. One of the supporting factors is the industrialization sector (Yogo Subekti & Muhammad Yasin, 2023).

Broadly speaking, economic growth can be described as an increase in the ability of the economy to produce goods and services (Masloman, 2018). Economic growth is an important indicator for analyzing a country's economic development. Economic growth shows the amount of economic activity that generates additional income for a community in a certain period (Utami, 2020). Basically economic activity requires the use of production factors to produce output. This process thus generates a flow of rewards for the factors of production owned by society. Along with the desire for economic growth, people's income as owners of production factors also want to increase. increased (Pelengkahu et al., 2021).

The manufacturing industry is an important sector that has contributed significantly to supporting national economic growth as a whole. However, the COVID-19 pandemic has had a significant impact on the operations of the manufacturing sector in Indonesia. There are several challenges currently being experienced by industry players in the country due to the impact of the COVID-19 pandemic. Initially, individuals experienced disturbances in processing deals and disbursement (Masruri, 2022). There are many sectors that cannot transition their production, such as the textile industry, which in turn produces personal protective equipment (PPE) and masks. The second challenge relates to the increased cost of primary and auxiliary materials. This has an impact on supply and demand. The problem faced is related to the inability to exercise control over prices, because this difficulty is experienced by all countries involved in the supply of raw and auxiliary materials. The next challenge relates to exchange rate volatility. As a result of implementing these health protocols, it is evident that the

industry is currently facing challenges related to a decrease in its production efficiency. Due to the implementation of physical distancing measures, there has been a decrease in the number of employees, leading to temporary layoffs and a significant reduction in production efficiency. Furthermore, logistical challenges related to transportation arose. According to Sarkodie and Owusu (2021), two factors contributing to the challenges faced are rising shipping costs and operational limitations imposed by regional regulations.

Assessment of the progress of a nation is determined by economic expansion and poverty alleviation. Every nation always strives to achieve optimal economic growth and alleviate poverty (Ginting & Rasbin, 2010). In almost every country around the world, the main prerequisite for achieving poverty alleviation is achieving economic growth. However, in developing countries such as Indonesia, the achievement of economic growth was accompanied by the emergence of

difficulties marked by the increasing number of people living below the poverty and unemployment line. Poverty is still an urgent national issue, which until now has not been effectively resolved. Based on data provided by BPS (2007), it can be seen that most of Indonesia's population, around 32.5 million people or around 14.2 percent, lived below the poverty line in 2007. The conditions experienced by individuals who live in poverty are limited availability of job opportunities, resulting in high unemployment rates. Indonesia has faced persistent employment problems stemming from the failure to fully integrate large portions of its rapidly growing and sizable workforce. Even during periods of accelerating economic expansion, employment conditions do not appear to have improved significantly. Instead, the situation has worsened as a result of the economic crisis, leading to a decline in the quality of education, healthcare and overall living standards.

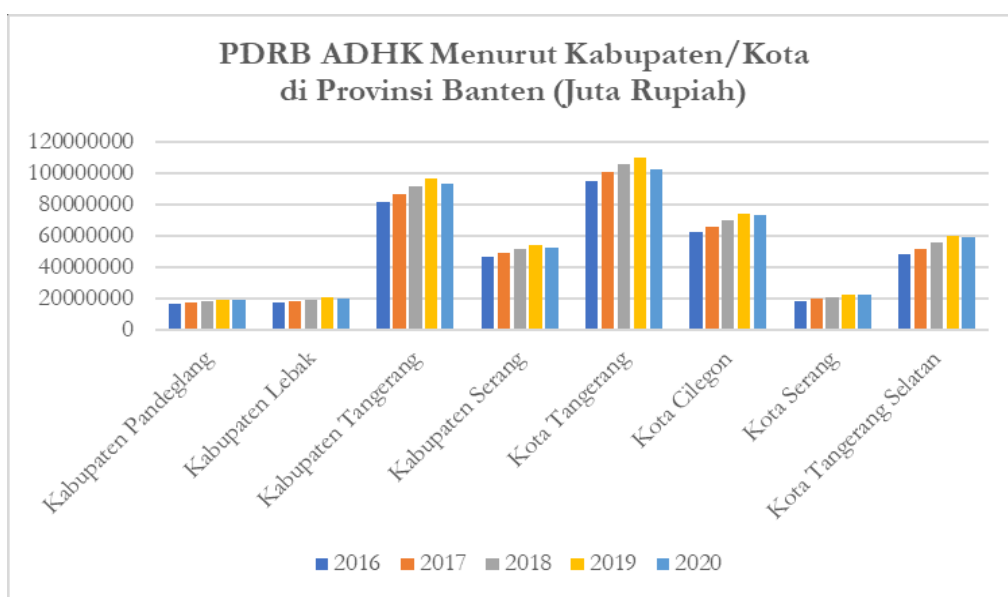


Fig. 1: Banten Province GRDP Data for 2016 – 2021

Economic growth is undoubtedly one of the key indicators for evaluating the effectiveness of local government in the contemporary autonomy era (Alfarabi et al., 2014). Assessment of local government performance will be increased in direct proportion to the level of economic growth achieved by the region. It is hoped that substantial economic growth will serve as a catalyst to drive progress of society as a whole. These advances include improving infrastructure, enhancing public services provided by government entities, and addressing fundamental aspects of human existence, particularly individual well-being.

Therefore, based on the phenomena that have been described previously, the researcher is interested in researching "The Influence of Large & Large Industries on the Performance of the Manufacturing Industry and Its Impact on Economic Growth (GDP) of Banten Province in 2016 – 2021"

## II. RESEARCH METHODS

The research method used in this research is descriptive and interpretive research. Interpretive research, as defined by Lavrakas (2013), is research that establishes causal relationships and examines the relationship between two or more variables studied and how they influence one another. The main purpose of explanatory research is to test hypotheses and evaluate the effect of the independent variables on the dependent variable.

The research lasted for ten years, starting in 2016 and ending in 2021. The research data was conducted in Banten Province. The sample used in this study includes variable data from 2016 to 2021. The number of samples in this study is 48 (forty) samples, including annual data from 2016 to 2021. This data correlates with an examination of the performance of the manufacturing sector and related economic growth, as measured by regional gross domestic product (GRDP).

The data analysis technique used in this study is ECM (*Error Correction Modeling*). The main objective of this regression analysis is to fully understand the relationship between independent and dependent variables partially or simultaneously.

### III. RESULTS AND DISCUSSION

#### A. Data analysis Stationary Test

Stationarity of the data at the testing level There is no single level of the variable which is stationary, so it is necessary to re-test the extent to which each variable is stationary. Following are the results of integration testing.

Table 1: Integration Testing Results

Research variable	t-statistik adf	Meaning	Information
Medium & Large Industry	-9,258785	0,0000	not moving
Manufacturing Industry Performance	-9,258785	0,0000	not moving
Economic Growth (GRDP)	-8.590211	0,0000	not moving

The table presented above displays the results of the ADF statistical test on initial differences. This shows that the null hypothesis is rejected, meaning that the data for all variables becomes stationary after being exported once. The probability value is below 0.05. This means that all these variables no longer show unit root problems and have stationary data conditions at that level. Originally, the degree of differentiation or integration was one.

#### B. Cointegration Test Results

Cointegration test aims to test whether the residual regression is stationary or non-stationary. The cointegration test can only be carried out when the relevant variables have the same degree of integration.

Table 2 shows the static (residual) RESID at various levels of significance. The residuals from the stationary cointegration regression show that all variables have a long-term equilibrium relationship that allows the short-term error correction model formulated by Engle-Granger.

Table 2: Cointegration Testing Results

hypothesized		Footsteps	0,05	
CE number	Nilai Eigen	Statistics	critical value	Problem.**
There isn't any *	0,383044	40.90610	29.79707	0,0018
At most 1 *	0,290292	18.69005	15.49471	0,0159
At most 2	0,061436	2.916588	3.841466	0,0877

#### C. ECM Estimation Results

Table 3: ECM Estimation Results

Variable	Coefficient	Error Standard	T-statistics	Problem
D(SB)	0,6446	0,5293	1,2178	0,2434
D(KM)	-0,1194	0,0319	-3,7424	0,0022
C	0,0994	0,0953	1,0428	0,3147
E2(-1)	-0,8955	0,2188	-4,0933	0,001

The ECM-EG estimation results show that the coefficient E2(-1) is negative and statistically significant (with a probability lower than 0.05). This implies that the model used can be estimated and has validity. The ECM estimation results also show that only the manufacturing industry performance variable shows an important impact on short-term economic growth.

### IV. CONCLUSION

Based on these findings and discourse analysis, this study concludes that the performance of the manufacturing sector has demonstrated a noteworthy capacity to have a positive impact on economic growth in Banten Province. The manufacturing industry has shown noteworthy annual growth, contributing to overall economic development in Banten Province.

### REFERENCES

- [1.] Alfarabi, M.A., Hidayat, M.S., & Rahmadi, S. (2014). Changes in Economic Structure and Their Impact on Poverty in Jambi Province. *Journal of Regional Development and Financing Perspectives*,1(3), 171. <https://doi.org/10.22437/ppd.v1i3.1551>
- [2.] Azwina, R., Wardani, P., Sitanggang, F., & Silalahi, P.R. (2023). Manufacturing Industry Strategy in Increasing the Acceleration of Economic Growth in Indonesia. *Business And Accounting*,2(1), 44–55.
- [3.] Ginting, A.M., & Rasbin. (2010). The effect of economic growth on poverty levels in Indonesia before and after the crisis. *Journal of Economics & Public Policy*,2(1), 279–312.
- [4.] Lavrakas, P. (2013). Independent variable. *Encyclopedia of Survey Research Methods*. <https://doi.org/10.4135/9781412963947.n219>
- [5.] Lesmana, E. D. Y. L. (2014). *SCIENTIFIC JOURNAL* Compiled by: Endoy Dwi Yuda Lesmana 105020101111008. *Economy*.

- [6.] Masloman, I. (2018). Analysis of Economic Growth and Potential Sectors and Competitiveness in South Minahasa Regency. *Analysis of Economic Growth and Potential Sectors and Competitiveness in South Minahasa Regency*, 18(01), 46–56.
- [7.] Masruri, O.: (2022). The Influence of Manufacturing Industry Performance on Labor Absorption and Human Development Index in Banten Province. *Economic Journal*, 24(1).
- [8.] Pelengkahu, S.S., Kindangen, P., & Walewangko, E.N. (2021). Analysis of the Influence of the Agricultural Sector on Economic Growth in North Sulawesi Province. *Journal of Economic Development and Regional Finance*, 22(2), 46–66.
- [9.] Purvey, PE (2015). Rural Industry Tempe Industry. *Scientific Journal of Social Sciences*, 1(1), 15–20.
- [10.] Sarkodie, S.A., & Owusu, P.A. (2021). Poverty in Indonesia During the COVID-19 Pandemic. *Research*, 26(1), 35–49.
- [11.] Siahaan, L.M. (2019). The Influence of Industrial Activities on Economic Growth in Karo District. *Economist: Journal of Economics and Development Studies*, 19(1), 31–41. <https://doi.org/10.30596/ekonomikawan.v19i1.3079>
- [12.] Utami, Farathika's daughter. (2020). The Effect of Human Development Index (IPM), Poverty and Unemployment on Economic Growth in Aceh Province. *Ocean Economica Journal*, 4(2), 101–113. <https://ejurnalunsam.id/index.php/jse/article/view/2303>
- [13.] Yogo Subekti, & Muhammad Yasin. (2023). Analysis of Surabaya City's GRDP for 2020-2023 as a Reflection of Surabaya City's Economic Growth. *Digital Business: Management Publication Journal and E-Commerce*, 2(2), 124–130. <https://doi.org/10.30640/digital.v2i2.1060>.