

MANUFACTURING INDUSTRY STRATEGY IN INCREASING THE ACCELERATION OF ECONOMIC GROWTH IN INDONESIA

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MANUFACTURING INDUSTRY STRATEGY IN INCREASING THE ACCELERATION OF ECONOMIC GROWTH IN INDONESIA

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ARTICLE INFO	15	ABSTRACT
Article history: Received 31 January 2023 Accepted 18 April 2023 Keywords: Industry; Economy; Manufacturing; Growth; Management Strategy.		Purpose: The purpose of this research is to identify the manufacturing industry's strategy for accelerating economic growth in Indonesia. The descriptive qualitative technique was used in this study. Theoretical Framework: The source of data used is secondary data obtained through literature review or literary research. The manufacturing industry has accounted for 20.27% of ASEN's national economy. Design/Methodology/Approach: A qualitative technique was used in this research. The source of data used is secondary data obtained through literature review or literary research. Findings: The manufacturing industry strategy materializes to accelerate Indonesia's economic development, implementing an industrial strategy 4.0, i.e. a planet to establish the Digital Industry Center of Indonesia. Research Practical and Social Implications: The manufacturing industry's strategy to accelerate Indonesia's economic growth is embodied with the implementation of an Industrial 4.0 strategy, i.e. a planet for the implementation of the Indonesia Digital Industry Center 4.0 (PIDI 4.0). Originality/Value: The data collected are secondary data obtained from the literature, journals, newspapers and the Central Statistical Agency (BPS). According to the necessary data, the GDP growth rate of manufacturing industry has occurred in the period 2017-2021.
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ESTRATÉGIA DA INDÚSTRIA DE MANUFATURA PARA AUMENTAR A ACELERAÇÃO DO CRESCIMENTO ECONÔMICO NA INDONÉSIA

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RESUMO

Objetivo: O objetivo desta pesquisa é identificar a estratégia da indústria manufatureira para acelerar o crescimento econômico na Indonésia. A técnica qualitativa descritiva foi utilizada neste estudo.

Referencial Teórico: A fonte de dados utilizada são dados secundários obtidos por meio de revisão de literatura ou pesquisa literária. A indústria transformadora foi responsável por 20,27% da economia nacional da ASEN.

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Desenho/Metodologia/Abordagem: Foi utilizada uma técnica qualitativa nesta pesquisa. A fonte de dados utilizada são dados secundários obtidos por meio de revisão de literatura ou pesquisa literária.

Resultados: A estratégia da indústria de manufatura se materializa para acelerar o desenvolvimento econômico da Indonésia, implementando uma estratégia industrial 4.0, ou seja, um planeta para estabelecer o Centro da Indústria Digital da Indonésia.

Implicações práticas e sociais da pesquisa: A estratégia da indústria de manufatura para acelerar o crescimento econômico da Indonésia é incorporada com a implementação de uma estratégia Industrial 4.0, ou seja, um planeta para a implementação do Centro Industrial Digital da Indonésia 4.0 (PIDI 4.0).

Originalidade/Valor: Os dados coletados são dados secundários obtidos da literatura, periódicos, jornais e Agência Central de Estatística (BPS). De acordo com os dados necessários, a taxa de crescimento do PIB da indústria de transformação ocorreu no período 2017-2021.

Palavras-chave: Indústria, Economia, Manufatura, Crescimento, Estratégia de Gestão.

ESTRATEGIA DE LA INDUSTRIA MANUFACTURERA PARA AUMENTAR LA ACELERACIÓN DEL CRECIMIENTO ECONÓMICO EN INDONESIA

RESUMEN

Propósito: El propósito de esta investigación es identificar la estrategia de la industria manufacturera para acelerar el crecimiento económico en Indonesia. En este estudio se utilizó la técnica cualitativa descriptiva.

Marco teórico: la fuente de datos utilizada es información secundaria obtenida a través de la revisión de la literatura o la investigación literaria. La industria manufacturera ha representado el 20,27% de la economía nacional de ASEN.

Diseño/Metodología/Enfoque: En esta investigación se utilizó una técnica cualitativa. La fuente de datos utilizada es información secundaria obtenida a través de la revisión de la literatura o la investigación literaria.

Hallazgos: La estrategia de la industria manufacturera se materializa para acelerar el desarrollo económico de Indonesia, implementando una estrategia industrial 4.0, es decir, un planeta para establecer el Centro de Industria Digital de Indonesia.

Investigación de implicaciones prácticas y sociales: la estrategia de la industria manufacturera para acelerar el crecimiento económico de Indonesia se materializa con la implementación de una estrategia Industrial 4.0, es decir, un planeta para la implementación del Indonesia Digital Industry Center 4.0 (PIDI 4.0).

Originalidad/Valor: Los datos recopilados son datos secundarios obtenidos de la literatura, revistas, periódicos y la Agencia Central de Estadística (BPS). Según los datos necesarios, la tasa de crecimiento del PIB de la industria manufacturera se ha producido en el período 2017-2021.

Palabras clave: Industria, Economía, Fabricación, Crecimiento, Estrategia Administrativa.

INTRODUCTION

The industrial sector is very important for economic development because it has the ability to drive economic growth. The industrial sector also contributes to growth by being a productive component. The expansion of the industrial sector is not only marked by an increase in production volume, but also by an increase in the number of goods produced. (Syara, 2019). The expansion of the manufacturing industry will spur the development of the agricultural sector which will provide raw materials for the industry.

Likewise, the service sector will grow, due to the existence of banking and marketing organizations that can drive growth in the manufacturing industry sector. As a result, job prospects will develop, and people's income will increase.

Indonesia is a developing country and the economic development activities carried out are aimed at reducing existing economic problems. Economic development will continue to develop if it is carried out in accordance with the right path so that it fits its goals and objectives. This is done through industrialization. The Manufacturing Industry almost always gets top priority in the development plans of developing countries. This industrial sector is used as a leader, which means that by carrying out industrial development it will increase other sectors in the services and agriculture sectors.

³ In Indonesia, the manufacturing industry sector is a sector that is experiencing very rapid development. This development was carried out during the New Order era with the existence of Law no. 1 of 1967 concerning Foreign Investment (PMA) which the government carried out with liberalization with the aim of attracting foreign capital to improve a weak economy. In Indonesia, industrial processes began to be carried out from 1950 to 1965 but were constrained by political matters which made this economic process not run smoothly. (E. P Lestari, 2017)

Manufacturing is one of the industries that was heavily affected by the Industrial Revolution 4.0.

Not only in the manufacturing process, but also throughout the industrial value chain, resulting in the development of new digital business models to achieve high efficiency and higher product quality. The Industrial Revolution 4.0, on the other hand, raises concerns about the replacement of human workers by robots and the weakening of local companies. This fear is in line with research conducted by the International Labor Organization/ILO (2016), which predicts that automation will replace 56 percent of jobs in Indonesia, the Philippines, Thailand, Vietnam and Cambodia. (Nugroho & Wahyuni, 2019)

Important challenges faced by the Indonesian manufacturing industry sector include the possibility of disparities in the level of efficiency and productivity of each sub-sector of the Indonesian manufacturing industry. This problem can arise due to imbalances in market structure, namely the dominance of a large and dominant market share for certain types of business in each sub-sector of the manufacturing industry sector. In addition, empirical findings show that the level of technology utilization and productivity in the manufacturing industry sector in Indonesia is still relatively low when compared to capital and labor productivity. (Etty Puji Lestari & WSU, 2017).

Table 1. Manufacturing Industry GDP Growth Rate in Indonesia

Year	industrial GDP manufacture
2018	4,27
2019	3,8

2020	-2.93
2021	3.39

Source: Central Bureau of Statistics of Indonesia

If seen from the data on the GDP growth rate of the manufacturing industry in Indonesia through data from the Central Statistics Agency that in 2017 it was at 4.29, in 2018 4.27, in 2019 3.8, in 2020 -2.93, and in 2021 3.39.

We can see that there has been a decline in the development of the Indonesian manufacturing industry in 2019 and 2020. Then in 2021 the Indonesian manufacturing industry is increasing again and what makes the increase in the development of the manufacturing industry in 2021.

One of the performance indicators of economic development needed for macroeconomic evaluation and planning is an increase in Gross Regional Domestic Product (GRDP) both at current and constant prices. Looking at the GDP figures can provide an overview of the implementation of development that has taken place. (Sholihah et al., 2017)

THEORETICAL STUDY

Manufacturing Industry

On the basis of Law 3 of 2014, in particular paragraph 2 of paragraph 1, all classes of industrial economic activity are all classes of economic activity that process primary products and/or use industrial resources, including industrial services, on the basis of Law 3 of 2014. Based on Webster's New World Dictionary, the term industrial is called "collective manufacturing of productive enterprises" against agriculture. According to the same source, industry means "any large-scale commercial activity", such as the food industry, the textile industry, the Internet industry, etc. Meanwhile, according to the Central Statistical Agency (BPS), industry is a business or activity of processing raw materials or semi-finished products, with an added value to obtain profits. The industry is also often interpreted as a group of companies with similar products. Based on the business sector, the industry concentrates on the processing industry and industrial services. (Nikensari, 2012)

Manufacturing industry, also known as secondary industry or non-extractive industry. The manufacturing industry transforms raw materials into over goods that have a sale worth and can be consumed or used by consumers. Raw materials from the manufacturing industry are finished goods produced by the primary industry.

The manufacturing industry often does not take raw materials directly from natural resources, so the manufacturing industry is also called a non-extractive industry. The

manufacturing industry produces products on a very large scale (mass production). Technological developments greatly affect the manufacturing industry. Production of finished goods, which used to be done on a household scale in rural areas, is now being produced on a larger scale in factories. With the help of machine or robotic technology, the production process can be accelerated.

The main characteristic of the manufacturing industry is that it has a majority market share in the country. The main consumers of domestic production come from within the country. The manufacturing industry in Indonesia is more focused on the domestic market share, although some of the industry has exported products abroad. The manufacturing industry is also the most resilient industry, especially in times of crisis. The manufacturing industry in Indonesia, especially the consumer product industry, is always used by the public. Even in difficult economic conditions, this product is more stable. (Sukamulja, 2021)

Economic Growth

Economic growth is one of the vital pointers to examine the economic development that occurs in a country. In short, economic growth shows the level at which economic activity generates additional income for the community in a given period. Meanwhile, according to Kuznets, economic growth is increasing its long-term ability to match the population with the various economic goods. Therefore, it is not surprising that at the beginning of a country's economic development, development planning is generally oriented towards growth issues. (Arifin, nd)

In its development until now there are various theories of economic growth. This theory itself appears a lot to explain the growth cycle as well as the factors that directly influence an increase in the national economy.

Solow-Swan Growth Theory

This theory of economic growth was by Robert Solow (Massachusetts Institute of Technology) and Trevor Swan (Australian National University). According to this theory, economic growth depends on the growth of the supply of productive factors and the level of technological progress. This approach is based on classical analysis, the economy will continue to have full employment and the capacity of capital goods will be fully utilized at all times.

Furthermore, the capital-output ratio (COR) can change and is dynamic. To create a certain amount of output, different capital can be used with the help of different labor according

to what is needed. If more capital is used, less labor is needed, conversely, less capital is used, more labor is used. With this flexibility, an economy has unlimited freedom in determining the combination of capital and labor that will be used to produce a certain level of output.

Solow-Swan growth theory uses a view of the productive function developed by Charles Cobb and Paul Douglas (the Cobb Douglas productive function). As with the Harrod-Domar model, the Solow-Swan model focuses on how population, capital accumulation, technological advancement, and production influence the process of economic growth. (Hidayat, 2017)

Historical Theory

This theory was developed by many economists, such as Karl Buicher, Werner Sombart, and Frederich List, who have different views but focus on people's economic activities. According to Karl, the relationship between producers and consumers affects the country's economic growth, which itself occurs in communities, cities, and the whole world. Werner Sombart, on the other hand, classifying the role of society in economic growth from the closed economic stage, industrial growth, to the capitalist stage. (Christianti, 2022)

RESEARCH METHODS

The qualitative descriptive method is a type of research method that will be used in this research. The data sources used come from secondary data, through a study entitled literaturae review or literaturae, which is collected through websites, journals and newsletters, digitally and depending on the topic to be treated. (Purboseno et al., 2022). The data collected are secondary data obtained from the literature, journals, newspapers and the Central Statistical Agency (BPS). According to the necessary data, the GDP growth rate of manufacturing industry has occurred in the period 2017-2021.

RESULTS AND DISCUSSION

The existence of increasing and sustainable economic growth is the most important requirement in implementing the method so that Indonesia becomes a developed country. One of the things that must be done so that this goal can be realized is to seek support from several sectors, one of which is in the manufacturing sector. This has the same direction to continue to develop the manufacturing industry in providing support for economic growth and improving the ongoing transactions. The government also continues to provide a consistent way to provide support in the manufacturing sector from the existence of several established policies.

We need a manufacturing industry to develop economic growth in Indonesia. At present, the manufacturing industry has contributed 20.27% in ASEN, through a state economy. This can be seen through the activities of the Indonesian manufacturing industry to replace commodity-based ones and change manufacturing-based ones. Then you see the industry.

This manufacturing sector has great potential to increase employment, increase the value of raw materials and increase sources of foreign exchange.

The manufacturing industry's strategy to rise the hastening of Indonesia's economic growth is realized through the Industrial Strategy 4.0, i.e. the Indonesia Digital Industry 4.0 Center (PIDI 4.0), which is embodied with the concept of smart buildings. The purpose of the building is a shelter or home for research, creation, and development regarding intelligence that will be made by Indonesia in the industrial era 4.0 so that it continues to assist and support industrial activities carried out, especially in the manufacturing sector.

The making roadmap for industry 4.0 was initially only focused on 5 strategic industrial sectors nationally through the GDP (Gross Domestic Product) level, namely in the manufacturing sector as much as 57%, manufacturing industry exports as much as 64% and employment in the industrial sector as much as 59%. This includes several fields, namely: (Utomo & Harjono, 2021)

1. The industry in the food and beverage sector will become a strong and leading industry in ASEAN countries, especially the food and beverage powerhouse.
2. The automotive industry will be the most important industry in meeting the needs of the domestic and foreign market for motorized vehicles, especially for Electrified Vihacle (EV) and internal combustion engines (ICE).
3. Industry in the field of electronics, will be an industry that is able to meet the needs of foreign and domestic markets. Like a bunch of electronics.
4. The chemical industry must be prepared as an industry that knows the desires of domestic and foreign consumers.
5. Industries in the field of textiles and textile products will be used as industries that create clothing products such as sportswear.

With the industrial revolution being carried out, it will be able to provide changes in the way humans live life and survive using technological advances that provide information and have a positive impact on life in the wider community. Through technological developments that continue to develop over time, there are breakthroughs in the field of artificial intelligence,

this happens because technology can replace the role of humans in carrying out work automatically.

When an industrial business in the manufacturing sector carries out the industrial revolution 4.0 strategy, of course all activities will be carried out automatically due to the development of increasingly developing technological media. In today's era, only a few industries still use manual media. Because with the development of technology, companies are more effective and efficient in carrying out their business activities. Likewise, people will get the desired goods more easily and at affordable prices.

Through the media, the industrial revolution changed the way products were made, which were originally done by humans, so they used machine power. This is in line with the development of science so that it is able to create sophisticated and useful technology in growing the hastening of economic development in Indonesia because it is able to accelerate the production of goods.

The following are some of the principles that the industrial revolution 4.0 has in the economic field, namely:(Istikomah & Arsanti, nd)

1. The interaction is carried out with the help of machine capabilities with the existence of sensor devices, namely being able to communicate via the internet.
2. There is a transportation that can provide information through a system that has been provided through a virtual copy using sensor data.
3. The existence of assistance provided technically through a system that can be used as a tool to provide an evaluation of the right information and find solutions to a problem that is happening and requires a quick and precise resolution.
4. There is a decision made with the virtual world system that is carried out by its own decision and carries out the task effectively.

10 With the presence of Industrial Revolution 4.0, Indonesia is committed to implementing Industry 4.0 to build a globally competitive manufacturing industry. This can be marked in the launch of the Indonesian roadmap and in the creative strategy that is being introduced today in the digital age. The objective of the roadmap is to establish strategies for access to the industrial age 4.0. The objective of the implementation of Industry 4.0 is, in itself, to create a development for another economy. Making Indonesia 4.0 has 10 national initiatives and they are inter universal to accelerate the pace of growth of the manufacturing industry. Indonesia 4 enters the adaptation phase for Industry 4.

It is hoped that the management system in the industry 4.0 platform will become an important input in recommendations for the formulation of national strategies and policies in accelerating the implementation of industry 4.0 into the preparation of infrastructure needed for industrial players, especially for manufacturing industries whose priority is to transform into industry 4.0. because regulations have not been made in the relevant negotiations for the development of industry 4.0 formally as a reference for implementation, at this time many industries are still having trouble finding a reference for implementation in the development of industry 4.0. With support in the form of an industrial development platform 4.

CONCLUSION

At present, the manufacturing industry has contributed 20.27% in ASEN, through a state economy. This can be seen through the activities of the Indonesian manufacturing industry to replace commodity-based ones and change manufacturing-based ones. The manufacturing industry's strategy to accelerate Indonesia's economic growth is embodied with the implementation of an Industrial 4.0 strategy, i.e. a planet for the implementation of the **Indonesia Digital Industry Center 4.0 (PIDI 4.0)**. The Minister of Industry hopes that the great vision will be achieved with the implementation of industry 4.0. The goal is for the top 10 economies by 2030 to be welcomed to return 10% of the net export figure. Increase labor productivity twice as much as the increase in labor costs and allocate two percent of GDP to technological and innovation activities.

In addition, the development of Indonesia's manufacturing industry must be supported by stakeholders such as government, businessmen and the general public.

CONFLICT OF INTEREST

The authors declares that there is no conflict of interest.

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Self

REFERENCES

Arifin, I. (nd). Opening the Economic Horizon. PT Grafindo Media Pratama.

Asmara, K. (2018). Analysis of the Role of the Manufacturing Industry Sector on Labor Absorption in East Java. *Journal of Economics Development Issues*, 1(2), 33–38. <https://doi.org/10.33005/jedi.v1i2.18>

Christianti, TL (2022). Economic growth theories and their relationship with macroeconomic variables. Media Scholar Partners.

Hidayat, W. (2017). Regional development planning: Approach to economic growth, income disparity and poverty. Malang Muhammadiyah University.

Istikomah, N., & Arsanti, M. (nd). Indonesia's Strategy to Enter the Industrial Revolution 4.0. Academia.Edu, 4–7.

Lestari, EP (2017). Analysis of Manufacturing Industry Performance in Indonesia. *Journal of Economic Research And Management*, 17(1), 183. <https://doi.org/10.17970/jrem.17.170115.id>

Lestari, Etty Puji, & WSU, I. (2017). Analysis of Manufacturing Industry Performance in Indonesia. *Journal Research Economy And Management*, 17(1), 183. <https://doi.org/10.17970/jrem.17.170115.id>

Nikensari, SI (2012). Industrial Economics. In Gadjah Mada University Press (Vol. 66). Nugroho, YD, & Wahyuni, KT (2019). Industrial Agglomeration and Dynamics manufacturing in the Era of the Industrial Revolution 4.0 In the Java Economic Corridor (Agglomeration and the Dynamics of Manufacturing Industry on the. National Seminar on Official Statistics 2019: 1–13.

Purboseno, S., Hermantoro, & Sunardi. (2022). The Role of the Millennial Generation in Driving the Acceleration of Digital Transformation in the Plantation Industry. Proceedings of the Instipier National Seminar, 1(1), 37–45. <https://doi.org/10.55180/pro.v1i1.240>

Sholihah, IM, Syaparuddin, S., & Nurhayani, N. (2017). Analysis of investment in the manufacturing industry sector, its influence on economic growth and employment in Indonesia. *Journal of Economic Paradigm*, 12(1), 11–24. <https://doi.org/10.22437/paradigma.v12i1.3930>

Sukamulja, S. (2021). Corporate Financial Management. ANDI Yogyakarta.

Syara, FA (2019). FACTORS AFFECTING PRODUCTION MANUFACTURING INDUSTRY IN INDONESIA. *Journal of Economic and Development Studies*, 1(2), 365–374.

Utomo, S., & Harjono, AN (2021). The Importance of Building a Multi-Stakeholder Collaboration Platform as a Key Enabling Factor in Building the Industry 4.0 Innovation Ecosystem in the New Normal Era. Pamulang University *Informatics Journal*, 6(1), 67. <https://doi.org/10.32493/informatika.v6i1.8142>

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