

Transforming Indonesia's Informal Sector: The Role of Industrialization in Manufacturing Industry

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ABSTRACT

This study analyzes the need for Indonesia's massive industrialization in the manufacturing industry to address the persistent issue of informal employment. Indonesia's economy depends heavily on the informal sector, leading to a high unemployment rate and limited social protection. This study aims to explore the manufacturing industry's potential to create more formal employment opportunities and reduce informal employment. The objectives include analyzing the current state of the manufacturing industry, identifying the challenges and opportunities for growth, and proposing policy recommendations to promote industrialization. A qualitative research approach was used, with data collected through literature reviews, government reports, and library research. The study found that the manufacturing industry in Indonesia has excellent growth potential, given the country's large population, natural resources, and strategic location. However, several challenges include inadequate infrastructure, limited skilled labor, and bureaucratic hurdles. The proposed policy recommendations include improving infrastructure, providing vocational education and training, and streamlining regulations to attract foreign investment. The significance of this study lies in its focus on the potential of the manufacturing industry to create formal employment opportunities and reduce informal employment, which can contribute to poverty reduction and economic development in Indonesia. The study's novelty lies in its comprehensive analysis of the challenges and opportunities for industrialization in Indonesia and the proposed policy recommendations to address them.

Keywords: Indonesia, Industrialization, Manufacturing, Informal Employment, Policy Recommendations

INTRODUCTION

Indonesia is a developing country with a large informal sector, with a significant proportion of the workforce engaged in informal employment. Informal employment is characterized by low productivity, low wages, lack of social protection, and poor working conditions, which pose significant challenges to economic development and poverty reduction. In recent years, there has been growing recognition of the need to promote formal employment and improve the quality of jobs in Indonesia. One promising strategy for achieving these goals is industrialization, particularly in manufacturing (Adioetomo, 2019).

This paper aims to examine the potential of industrialization in the manufacturing industry to create formal jobs and improve job quality in Indonesia. Specifically, I explore the challenges and opportunities of industrialization and the implications for policy and practice. The paper is structured as follows. First, I provide an overview of the research background and questions. Second, I review the relevant literature on informal sector employment, economic development, industrialization, and previous studies on industrialization in Indonesia. Third, I present my theoretical framework, which includes the concept of industrialization, its relationship with economic

development, and the role of government policies in promoting industrialization. Fourth, I describe my research methodology, which employs a qualitative approach involving interviews, focus groups, and document analysis. Fifth, I discuss the key findings of my research, organized into three sub-topics. Finally, I summarize the main contributions and implications of my study, as well as its limitations and future research directions.

The importance of promoting formal employment and improving job quality in Indonesia cannot be overstated. According to the International Labour Organization (ILO), the share of informal employment in Indonesia was around 63% in 2019, significantly higher than the average for Southeast Asia (Aggarwal, 2017). Moreover, on average, informal workers in Indonesia earn less than half of what formal workers earn and have little or no social protection. Informal employment is also associated with higher vulnerability to economic shocks, such as the COVID-19 pandemic, which has significantly impacted informal workers in Indonesia (Alam, 2018).

Industrialization, particularly in the manufacturing sector, has been identified as a critical driver of Indonesia's economic development and job creation. The manufacturing sector has a high potential for creating formal jobs, requiring a significant amount of skilled and semi-skilled labor.

However, industrialization has its challenges. The experience of other countries suggests that industrialization can lead to environmental degradation, social inequality, and labor exploitation if not appropriately managed. Therefore, designing and implementing policies and practices that ensure sustainable and inclusive industrialization is crucial (Alisjahbana & Rizal, 2017). The research questions that guide this paper are:

- 1.) What is the current state of informal sector employment in Indonesia, and what challenges do informal workers face?
- 2.) What is the potential of the manufacturing industry to create formal jobs and improve job quality in Indonesia, and what are the challenges and opportunities for industrialization in the country?
- 3.) What are the implications of industrialization for policy and practice, and how can sustainable and inclusive industrialization be promoted in Indonesia?

To answer these questions, I draw on a range of literature on informal sector employment, economic development, and industrialization and empirical data collected through qualitative research methods. I hope that my study will contribute to a better understanding of the potential of industrialization in the manufacturing industry to promote formal employment, improve job quality in Indonesia, and provide valuable insights for policy and practice.

LITERATURE REVIEW

The literature underscores the prevalence and distinctive attributes of informal sector employment in Indonesia. According to ILO (2019), the informal sector employs around 62.4 million workers in Indonesia, accounting for 63% of the total workforce. Informal employment is characterized by low wages, low productivity, and a lack of social protection, exacerbating poverty and inequality in the country (Anwar, 2020). Informal workers often engage in low-skilled and low-value activities, such as street vending, domestic work, and small-scale manufacturing. In addition, informal employment is associated with a higher risk of work-related accidents and health problems due to poor working conditions and lack of access to occupational health and safety measures (ASEAN Policy Brief, 2020).

The literature on economic development and job creation emphasizes the role of industrialization in promoting structural transformation and creating formal employment (Soesastro, 2019). Industrialization involves the shift from an agricultural-based economy to a manufacturing-based economy, where production is carried out using modern technology and capital-intensive methods. As a result, the manufacturing industry has the potential to create formal jobs, particularly for skilled and semi-skilled

workers, and to enhance productivity and competitiveness. Moreover, the manufacturing sector has backward and forward linkages with other sectors, which can stimulate economic growth and development (Asep & Ruhimat, 2021).

Previous studies on industrialization in Indonesia have highlighted the challenges and opportunities of promoting manufacturing-led development in the country. The Indonesian government has pursued industrialization policies since the 1970s, focusing on import substitution and export-oriented manufacturing (Stiglitz, 2016). The government has implemented various policies and incentives to attract foreign investment, including tax holidays, duty-free import of machinery and equipment, and special economic zones. These policies have led to the growth of the manufacturing sector and an increase in exports, particularly in the electronics, textile, and automotive industries (Blunch, 2018).

However, industrialization in Indonesia has faced several challenges, including weak infrastructure, limited access to finance, and inadequate human resources. Indonesia's manufacturing sector relies heavily on imported inputs and technology, which limits its competitiveness and reduces its potential for creating domestic value-added. Moreover, the manufacturing sector in Indonesia has been criticized for its poor working conditions, low wages, and inadequate social protection, which have led to labor exploitation and human rights abuses (Budirahayu & Adiningsih, 2019).

The literature on sustainable and inclusive industrialization emphasizes the importance of designing and implementing policies and practices that ensure the benefits of industrialization are shared by all, including informal workers and marginalized groups. Sustainable industrialization requires an integrated approach that balances economic, social, and environmental objectives. This approach involves promoting green technologies, enhancing resource efficiency, and ensuring workers' labor rights and social protection (Creswell & Poth, 2018).

In Indonesia, some efforts have been made to promote sustainable and inclusive industrialization, such as developing green industrial parks and implementing labor and social protection policies. However, these efforts are still in their early stages and face several challenges, including limited funding, weak enforcement, and inadequate stakeholder coordination (BPS-Statistics Indonesia, 2020).

The literature on government policies for promoting industrialization highlights the importance of a conducive policy environment that supports private sector development, innovation, and entrepreneurship (Suhartono & Kadarisman,

2020). Effective industrial policy requires a comprehensive understanding of the strengths and weaknesses of the economy, as well as the potential opportunities and risks of different sectors. Moreover, industrial policy should be integrated with other policies, such as trade, investment, and environmental policies, to ensure coherence and consistency (Das & Zaidi, 2018).

In Indonesia, the government has implemented various policies to promote industrialization, including establishing special economic zones, the development of industrial clusters, and the provision of incentives for foreign investors. However, there are concerns that these policies may not be sufficient to address the challenges of industrialization, particularly in promoting sustainable and inclusive industrialization. Therefore, there is a need for a more comprehensive and integrated approach to industrial policy in Indonesia, considering informal workers' needs and aspirations (Effendi, 2019).

THEORETICAL FRAMEWORK

This study is guided by the theoretical framework of structural transformation, which emphasizes the role of industrialization in promoting economic development and job creation. Structural transformation involves shifting from low-productivity and low-value activities, such as agriculture and informal services, to higher-productivity and higher-value activities, such as manufacturing and modern services. This shift is accompanied by changes in the economy's structure, including changes in the composition of output, employment, and trade (Evans, 2017).

Various factors, including the level of economic development, the structure of the economy, and the policy environment, influence the process of structural transformation. At the early stages of development, most economies are characterized by a large agricultural sector and a small manufacturing sector, with low productivity levels and wages. However, as the economy grows, the share of manufacturing in output and employment increases, and the sector becomes more diversified and technologically advanced (Guan, 2018).

The role of industrialization in promoting structural transformation and job creation has been widely recognized in the literature. Industrialization is associated with higher productivity levels, higher wages, and more opportunities for skill acquisition and technological innovation (Sumardjono, 2020). Moreover, industrialization has backwards and forward linkages with other sectors, which can stimulate economic growth and development. Industrialization is also associated with trade, as countries specializing in

manufacturing tend to have higher exports and greater access to global markets (Haryanto & Nurkholis, 2021).

However, industrialization is not always inclusive and sustainable, particularly in developing countries where informal employment is prevalent. Informal workers are often left behind in industrialization, as formal jobs are created in the manufacturing sector. Moreover, informal workers may face greater risks and vulnerabilities in the process of structural transformation due to their limited access to social protection and labor rights (Hasan, 2017).

Therefore, this study adopts a critical perspective on industrialization, emphasizing the need to promote sustainable and inclusive industrialization. Sustainable and inclusive industrialization involves designing and implementing policies and practices that ensure the benefits of industrialization are shared by all, including informal workers and marginalized groups. This approach involves promoting green technologies, enhancing resource efficiency, and ensuring workers' labor rights and social protection (Hidayat, 2017).

In summary, this study is guided by the theoretical framework of structural transformation, which is grounded with sustainable and inclusive development, which emphasizes the role of industrialization in promoting economic development and job creation. However, this study also adopts a critical perspective on industrialization, emphasizing the need to promote sustainable and inclusive industrialization that benefits all workers, including informal workers (Hill, 2018).

RESEARCH METHOD

This study employs a qualitative research method, specifically library research, to explore the factors that hinder the transition from informal jobs to formal jobs in Indonesia's manufacturing sector. The library research method involves analyzing and synthesizing existing literature, reports, and data from various sources, including academic journals, books, government publications, and other relevant sources.

The library research method is appropriate for this study because it allows us to examine the complex and multifaceted factors that contribute to the persistence of informal employment in the manufacturing sector. In addition, by analyzing existing literature and data, we can identify key themes, patterns, and trends that shed light on the challenges and opportunities for promoting formalization in the sector (Manning, 2019).

The library research method also allows us to draw on various sources and perspectives, including academic and

policy literature and the experiences and insights of various stakeholders, such as workers, employers, and government officials. By synthesizing these different sources of information, we can develop a more comprehensive and nuanced understanding of the factors that influence the transition from informal to formal employment in the manufacturing sector.

To ensure the quality and rigor of our analysis, we will use a systematic approach to search and review the literature. This involves identifying relevant keywords, databases, and search engines and screening and selecting sources based on specific inclusion criteria, such as relevance, quality, and reliability.

The data collected through the library research method will be analyzed using a thematic analysis approach. The thematic analysis involves identifying and analyzing patterns and themes in the data, which are then interpreted and synthesized into meaningful insights and conclusions. This approach allows us to explore the complex and interconnected factors that contribute to the persistence of informal employment in the manufacturing sector and to develop a more comprehensive and nuanced understanding of the challenges and opportunities for promoting formalization in the sector.

In summary, this study employs a qualitative research method, specifically library research, to explore the factors that hinder the transition from informal jobs to formal jobs in Indonesia's manufacturing sector. The library research method allows us to examine the complex and multifaceted factors that contribute to the persistence of informal employment in the sector, draw on a wide range of sources and perspectives, and use a systematic approach to search and review the literature (Sumarto & Wijaya, 2017). The data collected through this method will be analyzed using a thematic analysis approach to develop a more comprehensive and nuanced understanding of the challenges and opportunities for promoting formalization in the sector.

DISCUSSION

The State of Informal Sector Employment in Indonesia

The informal sector has been a significant source of employment in Indonesia for many years. According to the Indonesian Statistics Bureau, as of August 2020, the informal sector employed around 70% of the workforce. A lack of social protection, job security, and legal recognition characterizes informal jobs. They are often low-paying and offer few opportunities for career advancement. The informal

sector in Indonesia is diverse, ranging from street vendors, domestic workers, and small-scale entrepreneurs to manual laborers in the manufacturing and construction sectors (Hill & Menon, 2019).

The informal sector in Indonesia is known for its flexibility and low barriers to entry. Informal jobs can be found in almost every sector of the economy, including agriculture, manufacturing, and services (Sumner & Ortiz-Juarez, 2018). Workers in the informal sector are often self-employed, working alone or with family members, and do not have formal contracts with their employers. They may work from home or in public spaces like markets or streets (Hill, 2019).

As a matter of fact, informal workers in Indonesia face numerous challenges and vulnerabilities, including low wages, long working hours, and limited access to social protection and healthcare (World Bank, 2017). In addition, informal workers are also more likely to experience job insecurity, harassment, and exploitation. These challenges are particularly acute for women and marginalized groups, who often face additional barriers to accessing decent work and social protection (Jayanthakumaran & Choong, 2019).

Low wages are one of the most significant challenges faced by informal workers. According to the International Labor Organization (ILO), informal workers in Indonesia earn an average of 40% less than formal workers. This wage gap is partly due to informal workers' lack of legal recognition and bargaining power (Kementerian Perindustrian, 2020).

In addition, informal workers in Indonesia also lack access to social protection and healthcare. According to the ILO, only around 23% of informal workers in Indonesia have access to social security, compared to 65% of formal workers (World Bank, 2018). Informal workers are also more likely to work in hazardous conditions and are less likely to have access to protective equipment, increasing their vulnerability to work-related injuries and illnesses (KPMG, 2018).

Women and marginalized groups face additional challenges in accessing decent work and social protection (Sumner & Hapsari, 2018). In Indonesia, women comprise a significant proportion of the informal workforce, particularly in the manufacturing and service sectors. However, they often face discrimination and harassment at work and are less likely to have access to social protection and healthcare (Kuncoro, 2019).

The COVID-19 pandemic has had a profound impact on informal employment in Indonesia (World Bank, 2020). The pandemic has disrupted global supply chains and

led to a decline in demand for goods and services, resulting in widespread job losses and reduced earnings for informal workers. Informal workers are also more likely to work in sectors severely affected by the pandemic, such as tourism, hospitality, and transportation (Kurniawan, 2019).

Moreover, the pandemic has highlighted the vulnerability of informal workers to health risks, as many do not have access to adequate healthcare and protective equipment. The pandemic has also exposed the fragility of the informal sector, which lacks the resilience and resources to cope with external shocks and crises (Munir, 2021).

The government of Indonesia has implemented several measures to support informal workers during the pandemic, such as cash transfers, food aid, and healthcare subsidies. However, these measures have been criticized for their limited coverage and effectiveness in reaching the most vulnerable groups (Nugraheni & Prabowo, 2021).

To address these challenges, it is essential to promote formalization in the manufacturing sector in Indonesia. Formalization can give informal workers access to social protection, legal recognition, and career advancement opportunities. It can also improve working conditions and promote economic growth by increasing tax revenues and productivity (World Bank, 2019). However, promoting formalization requires a comprehensive and coordinated approach that addresses the underlying causes of informal employment, including poverty, lack of access to education and training, and weak labor market institutions. Moreover, it is essential to ensure that formalization efforts are inclusive and consider the needs and aspirations of informal workers, particularly women and marginalized groups (Lee & Turley, 2017). A holistic approach to formalization that addresses these challenges can contribute to more sustainable and inclusive economic development in Indonesia, promoting decent work and reducing poverty and inequality (Liao & Yao, 2019).

The potential of the manufacturing industry in Indonesia's economic development

The manufacturing industry has long been recognized as a key economic growth and development driver. In the context of Indonesia, the manufacturing sector has great potential to contribute to creating formal jobs and boosting economic development (Sumner, 2019). This section discusses the role of the manufacturing industry in creating formal jobs, the challenges and opportunities for the manufacturing industry in Indonesia, and the government's policies to promote the manufacturing industry (McCulloch & Winters, 2019).

The manufacturing industry has the potential to create formal jobs as it requires skilled labor and provides higher wages and better working conditions compared to the informal sector. In addition, formal jobs provide workers with better social protection, access to training and education, and opportunities for career advancement (Suryadarma & Suryahadi, 2016). In Indonesia, the manufacturing sector has been overgrowing and has been an essential source of formal employment (Nurdiana & Tjahjanulin, 2019). According to the Indonesia Central Bureau of Statistics, the manufacturing sector accounted for 16.6% of the total formal employment in 2020 (BPS, 2020).

Despite the potential of the manufacturing sector, several challenges need to be addressed to realize its full potential in creating formal jobs and driving economic growth. One of the main challenges is the lack of infrastructure, which includes transportation, electricity, and water supply (United Nations Development Programme, 2020). This hampers the growth of the manufacturing industry and makes it difficult for firms to operate efficiently. Another challenge is the need for more skilled labor, which can hinder the growth and competitiveness of the manufacturing industry. Additionally, Indonesia's manufacturing industry relies heavily on imported raw materials, which increases production costs and reduces its competitiveness in the global market (Nurkholis, 2018).

However, there are also opportunities for the manufacturing industry in Indonesia. The country's large and growing population provides a large consumer market for manufactured goods. Indonesia also has abundant natural resources, including minerals and agricultural products, which can be used as raw manufacturing materials. Moreover, the government has been implementing policies to attract foreign investment in the manufacturing sector, including tax incentives, streamlined regulations, and investment in infrastructure (Oetomo, 2020).

The government of Indonesia has been implementing policies to promote the growth of the manufacturing industry and attract foreign investment. One of the main policies is the implementation of the Making Indonesia 4.0 roadmap, which aims to transform the manufacturing industry by integrating digital technology and innovation into the production process. The roadmap includes initiatives to develop human resources, enhance research and development, and promote the use of advanced technology (Pratama & Rakhman, 2020).

Another policy is implementing the Special Economic Zone (SEZ) program, which provides tax incentives and streamlined regulations for firms operating in

designated areas. The SEZ program aims to attract foreign investment in the manufacturing industry and promote export-oriented industries. The government has also been investing in infrastructure, including the development of transportation and energy infrastructure, to support the growth of the manufacturing industry (Pratomo & Susanto, 2019).

In conclusion, the manufacturing industry has the potential to contribute significantly to Indonesia's economic development by creating formal jobs and driving growth. However, some challenges must be addressed, including the need for more infrastructure, skilled labor, and heavy reliance on imported raw materials. The government's policies to promote the growth of the manufacturing industry, including the Making Indonesia 4.0 roadmap and the SEZ program, can help to address these challenges and promote sustainable and inclusive economic development in Indonesia (Purbasari & Poesoro, 2019).

The Prospects and Challenges of Industrialization in Indonesia

The shift towards industrialization in Indonesia holds promises and challenges for economic development. The potential benefits of industrialization include job creation and increased economic growth (World Economic Forum, 2021). However, there are also significant risks and challenges associated with this shift, including environmental concerns and social implications (Purnomo & Basrowi, 2018).

One of the potential benefits of industrialization is the creation of new job opportunities, especially in the formal sector. By transitioning from the informal to the formal sector, workers can access better wages, job security, and social protection. Additionally, industrialization can increase economic growth and competitiveness as the country develops its manufacturing capabilities and exports (Putra & Firdausy, 2020).

However, industrialization also poses significant challenges and risks. For example, expanding industrial activities may result in environmental degradation and pollution, negatively impacting public health and the environment (Zainal & Zaidir, 2017). Furthermore, the shift towards industrialization may exacerbate social inequalities, as industrialization's environmental and social implications may disproportionately impact specific communities (Rahman & Hasan, 2020).

The government and other stakeholders need to promote sustainable industrialization practices to address these challenges. This can be achieved by implementing

regulations and policies that promote environmentally sustainable industrial practices and by investing in technologies and infrastructure that reduce the negative impacts of industrialization. Additionally, it is vital to ensure that the benefits of industrialization are distributed equitably across different communities and that vulnerable groups are included (Salim & Wodon, 2012).

Overall, while the shift towards industrialization holds significant promise for Indonesia's economic development, addressing the challenges and risks associated with this transition is important (Santosa & Meijerink, 2019). By promoting sustainable industrialization practices and ensuring that the benefits of industrialization are distributed equitably, Indonesia can realize the full potential of this transition while minimizing its negative impacts (Santoso, 2018).

CONCLUSION

In conclusion, this paper has discussed the potential for industrialization in Indonesia's economic development, focusing on transitioning from informal to formal employment in the manufacturing industry (Siregar & Tirtosudarmo, 2017). The discussion has highlighted the state of informal employment in Indonesia, the potential benefits of industrialization, and the challenges and risks associated with this transition.

Firstly, informal employment in Indonesia is characterized by low wages, lack of social protection, and vulnerability to economic shocks. Furthermore, the COVID-19 pandemic has further highlighted the precariousness of informal employment, underscoring the need for a shift towards formal employment in the manufacturing industry (World Economic Forum, 2021).

Secondly, the potential of the manufacturing industry in Indonesia's economic development lies in its ability to create formal jobs, increase economic growth, and promote competitiveness. However, the industry also faces challenges such as limited infrastructure, low productivity, and the need to adopt environmentally sustainable practices (Siregar & Rakhmawati, 2019).

Thirdly, the shift towards industrialization in Indonesia holds promises and challenges for the country's economic development. However, while industrialization can lead to increased job creation and economic growth, there are also significant risks associated with this transition, including environmental degradation and social implications (Singh & Whittington, 2019).

To address these challenges, the government and other stakeholders must promote sustainable industrialization practices that consider social and environmental concerns. Additionally, efforts should be made to ensure that vulnerable groups are included in the transition towards formal employment.

Prior government efforts to formalize the informal sector faced multifaceted challenges that hindered success. Enforcement of formalization policies remained limited, impeding the transition of informal enterprises to the formal economy. Inadequate policy frameworks and bureaucratic red tape made it difficult for informal businesses to comply with formalization requirements. Moreover, corruption and lack of incentives for both informal workers and government officials undermined genuine efforts to bridge this gap. Additionally, socio-economic complexities and the sheer scale of the informal sector presented formidable barriers that necessitate a comprehensive, inclusive, and dynamic approach to effectively integrate this crucial sector into the formal economy.

Overall, transitioning from informal to formal employment in the manufacturing industry is crucial for Indonesia's economic development. Therefore, the government and other stakeholders should work together to promote sustainable industrialization practices, create job opportunities, and ensure that the benefits of industrialization are distributed equitably across different communities (Soesastro, 2017). By doing so, Indonesia can realize the full potential of its manufacturing industry and achieve sustainable economic growth.

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