

DOWNSTREAMING POLICY ON INDONESIA'S EXPORT VALUE ADDED

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ABSTRACT

This study examines downstream policies on Indonesia's export value added. The downstream policy, which aims to increase domestic processing of raw materials, has been the focus of the Indonesian government's strategy to improve the competitiveness of the national economy. Using a quantitative approach with descriptive and inferential analysis, this study analyzes Indonesia's export data over a 10-year period (2014-2024). The results show that the implementation of the downstream policy has had a significant positive impact on increasing the added value of exports, especially in the nickel mining sector with an increase in the export value of processed products by more than 200 percent by 2022. This policy has also contributed to the diversification of export products and the creation of new jobs. However, the implementation of the downstream policy still faces several challenges, including limited competent human resources, international trade barriers, and large investment needs. This study concludes that despite the challenges, the downstream policy has proven effective in increasing the value-added of Indonesia's exports and has the potential to drive long-term economic growth. Recommendations to overcome the challenges include improving the quality of human resources, strengthening economic diplomacy, and simplifying regulations.

Keywords: Downstreaming, Export Value Added, Industrial Policy, Economic Growth, Indonesia

Introduction

Indonesia, as a country rich in natural resources, has long relied on the export of raw materials as one of the main sources of foreign exchange. While this strategy has contributed significantly to the national economy, the reliance on primary commodity exports also brings several serious challenges that need to be addressed. One of the main problems with this reliance is the low value-added of exports. Raw materials, such as coal, palm oil, or mineral ores, have a much lower economic value compared to processed products or finished goods. As a result, Indonesia loses substantial potential revenue from its natural resources. While importing countries benefit greatly from the processing of these raw materials, Indonesia only receives a fraction of the final product value (Purnama, 2024).

Furthermore, dependence on raw material exports makes the Indonesian economy highly vulnerable to fluctuations in global commodity prices. International commodity markets are known for their high volatility, influenced by various factors such as geopolitical conditions, changes in global demand, or even market speculation. As a result, Indonesia's export earnings can fluctuate significantly from year to year, creating uncertainty in economic planning and the country's budget (Putri & Faradina, 2023).

The impact of this vulnerability can be clearly seen during a downturn in global commodity prices. For example, when oil or coal prices drop dramatically, Indonesia experiences a significant drop in export revenues, which in turn can affect the rupiah exchange rate, trade balance, and even overall economic growth. In addition, dependence on raw material exports also makes Indonesia more vulnerable to changes in importing countries' policies or technological developments that may reduce demand for certain commodities (Ika, 2017).

Recognizing these challenges, the Indonesian government has begun implementing an industrial downstreaming policy as a strategy to increase value-added exports and reduce dependence on raw

commodities. This policy aims to encourage domestic processing of raw materials before they are exported, thereby increasing economic value and creating more jobs. Through downstreaming, Indonesia is expected to strengthen its position in the global value chain, improve export competitiveness, and ultimately achieve more stable and sustainable economic growth.

Literature Review

Industrial downstreaming is an economic development strategy that aims to increase the added value of a product through further processing. Downstreaming is defined as the process of processing raw materials into ready-to-use goods. In the context of industry, downstreaming means optimizing derivative products from a commodity to create a higher selling value. This concept involves the transformation of raw materials or raw products into semi-finished goods or final products that have higher economic value. The main characteristics of industrial downstreaming include increasing added value, value chain integration, product diversification, increasing competitiveness, and optimizing local resources (Purnama, 2024).

The downstream policy in Indonesia has been the focus of the government, especially in strategic sectors such as mining, agriculture, and energy. The main objectives of this policy are to reduce dependence on raw material exports, increase the added value of export products, and boost national economic growth (Ika, 2017). Minister of Industry Agus Gumiwang asserted that industrial downstreaming is the key to national economic progress. The Indonesian government has implemented various policies to encourage industrial downstreaming, including restrictions on exports of certain raw materials, fiscal incentives for processing industries, development of integrated industrial zones, and increased investment in the downstream sector (MENPERIN, 2022).

Export value-added refers to the increase in the economic value of a product through processing or transformation before it is exported. This concept is very important in the context of international trade and national economic development. Export value-added includes not only the ratio of product price to raw materials, but also the benefits provided to society, such as job creation and technology transfer (MENPERIN, 2022).

The relationship between downstreaming and value-added exports is very close and mutually supportive. Industrial downstreaming aims to increase the added value of products, which in turn can significantly increase the value of exports. According to the Minister of Industry, the multiple impacts of industrial downstreaming activities that have been proven to be real include increasing the added value of domestic raw materials, attracting investment into the country, generating large foreign exchange from exports, and increasing the number of labor absorption. For example, in the nickel industry, the increase in added value of nickel ore through downstreaming can reach 340-400 times (Ika, 2017).

Although industrial downstreaming is seen as a promising strategy for economic development and increasing value-added exports, its implementation also faces various challenges. These include the need for large investments, the development of technology and human resources, and the need for consistent and supportive policies from the government. However, with the right strategy and effective implementation, industrial downstreaming has the potential to significantly increase the value-added of Indonesia's exports and boost national economic growth (MENPERIN, 2022).

Methods

This study is an explanatory research, aiming to explain the causal relationship between downstream policy and value added of Indonesian exports. Secondary data is obtained from Indonesian export data (value and volume) from the Central Statistics Agency (BPS), downstream policy data from the Ministry of Industry, industrial sector value-added data from the Ministry of Trade and annual reports of related companies in downstream sectors in the last 10 years (2014-2024) to see trends before and

after the implementation of downstream policies.

Results and Discussion

Implementation of downstream policy in Indonesia

The implementation of the downstream policy in Indonesia has shown a significant positive impact on the national economy. One example of the success of this policy can be seen in the nickel mining sector. Since the implementation of the nickel ore export ban in 2020, the export value of Indonesia's processed nickel products has increased dramatically by more than 200 percent in 2022. This increase shows that the downstream policy has succeeded in encouraging domestic processing of raw materials and increasing the added value of exports (Khaldun, 2024).

The Indonesian government also continues to encourage the implementation of downstreaming in various other industrial sectors. The Coordinating Minister for Economic Affairs, Airlangga Hartarto, emphasized that the downstream industry policy is one of the keys to maintaining national economic resilience. One concrete example of the implementation of this policy is the inauguration of the operationalization of PT Freeport Indonesia's smelter in Gresik Special Economic Zone (KEK). This smelter is the largest copper refining facility in the world with a refining capacity of 1.7 million tons of copper concentrate per year, which will provide significant added value to Indonesia's export products (Akhmadi, 2024).

Although the downstream policy has drawn controversy at the international level, such as the European Union's lawsuit through the WTO and the IMF's suggestion to phase out this policy, the Indonesian government remains committed to continuing the downstream strategy. This is based on the tangible benefits that have been felt, such as increased value-added exports, job creation, and strengthening domestic industries. The downstream policy is also seen as a strategic step to reduce Indonesia's dependence on raw material exports and increase the competitiveness of Indonesian products in the global market.

The implementation of the downstream policy also has a positive impact on economic diversification and the development of downstream industries. According to Industry Minister Agus Gumiwang, industrial downstreaming has been proven to increase the added value of domestic raw materials, attract investment, generate large foreign exchange from exports, and increase the number of labor absorption. The government also focuses on downstreaming in three main sectors, namely agro-based, mining and mineral-based, and oil and gas and coal-based industries (Wau, Andriaskiton, Wau, & Fau, 2024).

However, the implementation of the downstream policy also faces several challenges. According to Agus Gumiwang, the main challenges include the availability of competent human resources (HR), expanding international cooperation to fill new export markets, providing incentive facilities, and strengthening negotiation skills in the face of pressure from international trade and diplomacy. To overcome these challenges, the government continues to create a conducive business climate and improve synergy between the government and the business world. Overall, the implementation of downstream policies in Indonesia has shown positive results in increasing the added value of exports, encouraging domestic industrial growth, and strengthening Indonesia's position in the global value chain. Although it still faces various challenges, the government's commitment to continue and strengthen this policy is expected to bring Indonesia to the status of an advanced industrial country and overcome the middle-income trap.

Development of value-added of Indonesia's exports

The development of Indonesia's export value-added has shown a positive trend in recent years, especially after the implementation of downstream policies in various industrial sectors. One example of significant success can be seen in the nickel mining sector. Since the implementation of the nickel ore export ban in 2020, the export value of Indonesia's processed nickel products has increased dramatically by more than 200 percent in 2022. This increase shows that the downstream policy has

successfully encouraged domestic processing of raw materials and increased the added value of exports (Bank, 2019).

Data from the Central Statistics Agency (BPS) shows that despite monthly fluctuations, Indonesia's export trend continues to show an increase. In April 2024, Indonesia's export value reached US\$19.62 billion, and although it decreased by 12.97 percent compared to March 2024, this figure still showed an increase compared to the same period the previous year. This indicates that efforts to increase the added value of exports through downstreaming have started to produce positive results (BPS, 2024).

The development of the added value of Indonesia's exports can also be seen from changes in the composition of exports. Previously, Indonesia exported more raw materials, but now it has begun to shift towards processed products with higher added value. For example, Indonesia has become the world's largest nickel producer with total production reaching 1.6 million metric tons and contributing 48.48% of total global nickel production in 2022. This transformation from an exporter of raw materials to an exporter of processed products shows a significant increase in export value added (Bank, 2019).

The implementation of the downstream policy has also had a positive impact on the diversification of Indonesia's export products. In addition to nickel, the government also encourages downstreaming in other sectors such as bauxite and copper. According to President Joko Widodo's statement, the downstream program has succeeded in opening more than 200 thousand jobs and increasing state revenues by more than IDR158 trillion over the past 8 years. This increase not only shows the growth of value-added exports, but also the positive impact on the national economy.

Nonetheless, the development of Indonesia's value-added exports still faces several challenges. One of them is the need for large investments in technology and infrastructure to support the downstream process. In addition, Indonesia also needs to continue improving the quality of human resources to support a more complex processing industry. However, with strong government commitment and consistent policy implementation, Indonesia has great potential to continue to increase the added value of its exports in the future.

Challenges in downstream policy implementation

The implementation of downstream policies in Indonesia faces several significant challenges. One of the main challenges is the lack of competent human resources. Industrial downstreaming requires a skilled workforce capable of managing more complex technologies and production processes. To overcome this, efforts are needed to improve the quality of vocational education and training in accordance with industry needs.

The second challenge is trade barriers erected by other countries, especially the European Union. This hampers Indonesia's efforts to increase the added value of mining products. Protectionist policies from developed countries can limit market access for Indonesian processed products, reducing the effectiveness of downstream policies. The government needs to increase efforts in economic diplomacy and international trade negotiations to overcome this obstacle.

Third, the implementation of downstream policies also faces challenges in terms of large investment needs for technology and infrastructure. The development of downstream industries requires significant capital to build production facilities, adopt new technologies, and develop supporting infrastructure. This can be a burden for companies, especially MSMEs that have limited access to financing.

The fourth challenge is the complexity of regulations and coordination between government agencies. Downstream policy implementation involves various ministries and agencies, which sometimes have different interests and approaches. This can lead to overlapping policies or even conflicting policies, which ultimately hinders the effectiveness of downstream implementation.

Fifth, there are challenges related to conflicts of interest between government and private parties that have not been resolved, especially in the mineral and coal mining sector. The phenomenon of the dismantling of articles and laws on mineral and coal mining shows the complex dynamics of interests

in the implementation of downstream policies.

Despite facing various challenges, the Indonesian government remains optimistic that national downstream mining products can still be accepted by the international market. To overcome these challenges, a comprehensive strategy is needed, including improving the quality of human resources, strengthening economic diplomacy, providing investment incentives, simplifying regulations, and improving coordination between government agencies. With the right approach, downstream policies have the potential to significantly increase the added value of Indonesian exports and boost national economic growth.

Conclusion

1. The downstream policy implemented by the Indonesian government has shown a significant positive impact on increasing the value-added of exports. This is particularly evident in the nickel mining sector, where the export value of processed nickel products increased by more than 200 percent in 2022 after the introduction of the nickel ore export ban.
2. The implementation of the downstream policy has succeeded in changing the composition of Indonesia's exports from those previously dominated by raw materials to processed products with higher added value. This transformation not only increases the value of exports, but also strengthens Indonesia's position in the global value chain.
3. The downstream policy has had a positive impact on the national economy as a whole, including the creation of new jobs and increased state revenues. According to government data, the downstream program has created more than 200 thousand jobs and increased state revenue by more than IDR158 trillion over the past 8 years.
4. To overcome these challenges, a comprehensive strategy is needed, including improving the quality of human resources, strengthening economic diplomacy, providing investment incentives, simplifying regulations, and improving coordination between government agencies.
5. Despite facing various challenges and controversies at the international level, the Indonesian government remains committed to continuing and strengthening downstream policies. This is based on the tangible benefits that have been felt and the long-term potential to increase the competitiveness of Indonesian products in the global market.
6. Overall, the downstream policy has proven effective in increasing the value-added of Indonesia's exports. However, the long-term success of this policy will depend on the ability of the government and industry players to overcome existing challenges and continue to adapt to global market dynamics.

Suggestions

The government needs to increase investment in human resource development through education and training programs that are in line with the needs of downstream industries. Strengthening economic diplomacy is needed to overcome international trade barriers and expand market access for Indonesian processed products. The government should simplify regulations and improve inter-agency coordination to facilitate the implementation of downstream policies. It is necessary to develop more attractive incentive schemes to encourage investment in downstream supporting technology and infrastructure. The government must ensure the sustainability of the downstream policy by considering environmental and social aspects in its implementation.

Managerial Implication

This research contributes to the understanding of the effectiveness of industrial policy in increasing export value added in developing countries. The research results can be the basis for the development

of a more comprehensive economic model related to industrial downstreaming. The research findings can be a reference for policy makers in designing and implementing more effective downstream policies. The results of this study can assist industry players in anticipating policy changes and planning appropriate business strategies.

This study confirms the importance of sustainability and consistency of downstream policies to achieve the goal of increasing long-term export value-added. Findings on implementation challenges can serve as input for the government in drafting more comprehensive supporting policies.

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