ECONOMIC PERFORMANCE OF THE FOOD INDUSTRY AND ITS CORRELATION WITH FOOD AFFORDABILITY IN INDONESIA

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Abstract

This study aims to examine the economic performance of the food industry in Indonesia and identify its correlation with the level of food affordability by the community. Using a literature review method, this study collects and analyzes various academic sources, policy reports, and statistical data from national and international institutions to describe the dynamics of the food sector in the context of economic growth, production efficiency, and food distribution. The results of the study indicate that the food industry has a strategic role in the national economy, both as a driver of the agribusiness sector and as a determinant of social stability through the availability and affordability of food. However, structural challenges such as distribution inequality, dependence on imported raw materials, and fluctuations in food commodity prices are still major obstacles in realizing equitable food affordability. A positive correlation was found between the growth of the food industry's performance and increased food affordability, although the impact was not evenly distributed throughout Indonesia. Therefore, strengthening national food policies and increasing supply chain efficiency are key to encouraging food security and justice in the future.

Keywords: food industry, economic performance, food affordability, food security, Indonesia

INTRODUCTION

Food availability and affordability are two main pillars in ensuring a country's food security. In the context of Indonesia, which is an agricultural

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country with a population of more than 270 million people, the issue of food affordability has major implications for social, economic, and political stability. When food prices soar or its distribution is uneven, low-income groups are the most affected (de Pee et al., 2021). Therefore, it is important to examine how the economic performance of the food industry as the main driver of the national food system correlates with the level of food affordability for the Indonesian people. The food industry in Indonesia is a strategic sector that not only plays a role in meeting domestic consumption needs but also has a significant contribution to Gross Domestic Product, job creation, and state revenue from exports. In recent years, the government has encouraged the growth of this sector through various policies such as agricultural downstreaming, strengthening food MSMEs, investment incentives for agricultural processing industries, and development of logistics infrastructure. However, classic problems such as dependence on imported raw materials, low farmer productivity, inefficient supply chains, and market dominance by a handful (Arifin et al., 2019) of major players are still serious challenges in creating a fair and inclusive food system.

On the other hand, according to (Srinita, 2018) food affordability is not only about low prices, but also includes people's purchasing power for nutritious, balanced, and sustainable food. When the performance of the food industry improves, for example through increased productivity, distribution efficiency, or product innovation, the impact should be reflected in increased public access to decent food at affordable prices. However, in reality, the growth of the food industry is not always linear with increased food affordability. Sometimes the economic growth of this sector actually strengthens the inequality of access due to the high concentration of production and distribution in certain areas or certain producer groups. Thus, it is important to examine the extent to which the economic performance of the food industry has a real impact on food affordability.

In addition, recent global economic transformations and geopolitical dynamics, such as supply chain disruptions due to the COVID-19 pandemic and global conflicts affecting food commodity trade, have added to the complexity of the relationship between food industry performance and food affordability (Setiawan et al., 2012). Indonesia's dependence on imports of strategic raw materials such as wheat, soybeans, and corn makes domestic food price fluctuations very vulnerable to price changes in the international market. In conditions like this, the role of the domestic food industry is crucial to strengthen national production capacity and create a more resilient food

system (Rozaki et al., 2023). Therefore, efforts to deeply understand the relationship between the economic strength of the food sector and the level of affordability felt by the community are becoming increasingly relevant and urgent.

In a regional context, the disparity in development between regions in Indonesia also affects the performance of the food industry and access to food. The Java region as the main production and distribution center has very different conditions compared to areas outside Java such as Maluku, Papua, or parts of Kalimantan and Sulawesi. Differences in infrastructure, market access, production technology, and local policies cause disparities in the efficiency of the food industry which ultimately affect the price and availability of food in each region. This indicates that food affordability cannot be viewed in terms of national aggregate alone, but must be analyzed by considering the diversity of geographical, social, and economic conditions between regions in Indonesia (Amalia et al., 2024). The phenomenon of rapid urbanization also shapes people's food consumption patterns. In big cities, the demand for processed, ready-to-eat, and functional foods is increasing, which opens up opportunities for the growth of the food processing industry. However, on the other hand, the increasing consumer lifestyle can cause a shift in the orientation of the industry from basic food needs to products with high added value that do not necessarily contribute to meeting the basic food needs of low-income communities. Therefore, it is important to ensure that the growth of the food industry also prioritizes aspects of justice in the distribution of economic benefits, including through affordable prices for all levels of society.

Within the framework of public policy, the Indonesian government has issued various strategies such as the Food and Nutrition Action Plan, the food price stabilization program by the National Food Agency, fertilizer and seed subsidies, and support for sustainable agriculture. However, the effectiveness of these policies in improving the performance of the food industry and increasing food affordability still requires evaluation based on empirical data. The large number of actors involved from the government, private, and civil society sectors makes policy coordination and consistency crucial to avoid overlapping or conflicts of interest that lead to inefficiency in the national food system.

Furthermore, technological developments and digitalization have opened up new opportunities for the food industry to increase production and distribution efficiency. Innovations such as food e-commerce, digital logistics systems, the use of big data for demand and weather predictions, and

precision agriculture can be solutions to overcome various structural obstacles that have so far hampered the performance of the food industry. However, the adoption of this technology is still limited to large players or areas that already have adequate supporting infrastructure. Therefore, equal access to technology and increasing human resource capacity are important keys to ensuring that the digitalization of the food industry can encourage increased food affordability in an inclusive and sustainable manner (Faharuddin et al., 2022).

Research on the relationship between the economic performance of the food industry and food affordability is very important as a basis for formulating evidence-based policies. Using a literature review approach, this study aims to present a synthesis of various empirical studies, policy reports, and relevant statistical data to understand how the dynamics of the food sector in Indonesia affect people's access to adequate food. Through a comprehensive analysis, it is hoped that patterns of relationships can be found between economic indicators of the food industry such as output growth, investment, exports-imports, and distribution efficiency with indicators of food affordability such as the consumer price index, the proportion of household spending on food, and price disparities between regions.

The conclusion from this background is that the issue of food affordability in Indonesia cannot be separated from the overall economic performance of the food sector. Increasing the efficiency, sustainability, and inclusiveness of the food industry is a challenge as well as an opportunity in realizing a resilient and equitable food system. Therefore, it is important for researchers, policy makers, and industry players to understand more deeply the correlation between the development of the food industry and the level of community food affordability as a foundation for creating a responsive and socially just national food policy.

RESEARCH METHOD

The research method used in this study is a descriptive-analytical literature review method. This approach was chosen to explore and analyze various relevant scientific sources related to the economic performance of the food industry and food affordability in Indonesia. This study aims to present a comprehensive understanding of how the dynamics of growth and productivity of the national food industry affect the aspect of food affordability for the community, especially in the context of food security and sustainable economic development. This study is based on previous studies,

reports from national and international institutions, scientific journals, and secondary statistical data from the Central Statistics Agency, the Ministry of Agriculture, and trusted research institutions.

The data collection process in this study was carried out through a systematic search of relevant academic publications and policy documents over the past ten years. Inclusion criteria were set to ensure the quality and relevance of the sources used, covering topics on the growth of the food industry, the sector's contribution to Gross Domestic Product, the value of food exports and imports, food distribution, and indicators of food affordability such as relative prices and people's purchasing power. The analysis was carried out by comparing various findings, synthesizing existing data, and identifying patterns or relationships that emerged between the economic growth of the food sector and its impact on people's access to decent and affordable food.

In the analysis stage, a thematic approach is used to identify common threads from various literatures reviewed, especially those concerning the interaction between aspects of production, distribution, pricing policy, and food consumption. By compiling a conceptual synthesis of various available perspectives, this study is expected to be able to provide a comprehensive picture of the correlation between the economic performance of the food industry and food affordability. In addition, this method also provides a theoretical and empirical basis for formulating policy recommendations aimed at increasing food accessibility without ignoring the economic growth of the food sector itself.

RESULT AND DISCUSSION

Economic Performance of Food Industry in Indonesia

The food sector is a strategic part of national economic development that plays an important role in maintaining food security, increasing people's income, and encouraging inclusive economic growth. In Indonesia, the growth trend of the Gross Domestic Product of the food sector shows a fairly stable and resilient development despite being faced with various global and domestic economic dynamics. This sector has consistently been a major contributor to the GDP of the non-oil and gas processing industry, where the food and beverage industry holds a significant portion in the national economic structure. This growth is driven by several factors, including increasing domestic demand along with population growth, increasing

people's purchasing power, and a shift in lifestyle towards consuming processed and ready-to-eat food products (Afriyanti et al., 2023).

The development of digital technology and changes in consumption patterns during and after the COVID-19 pandemic have also encouraged the food sector to continue to adapt and grow. In recent years, this sector has shown the ability to recover faster than other sectors, given its role as a basic need for society. The growth of the food sector GDP is also reflected in the expansion of business actors, the increasing number of micro, small, and medium enterprises (MSMEs) in the food sector, and investment flowing into sub-sectors such as processed foods, soft drinks, palm oil-based products, and seafood. However, this growth is not yet fully even, because there is still a gap between advanced industrial areas and areas that have not been optimally touched by supporting infrastructure for the food industry (Jailani & Adinugraha, 2022). Although the quantitative growth of the food sector is quite promising, the productivity and competitiveness of the local food industry are still major challenges that must be faced. In many cases, the local food industry is still dominated by small and medium-sized businesses that have limitations in terms of technology, capital, and access to markets. This causes productivity per worker and production efficiency to still be relatively low when compared to neighboring countries that have previously developed their food industries in a modern and integrated manner. In addition, the ability to innovate products is also a crucial issue. Many local food industry players still rely on conventional products that have low added value, without sufficient diversification of products based on local wisdom or in accordance with global market tastes.

Other factors that weaken competitiveness are the limited use of technology and low involvement in research and development (R&D) activities. In fact, to be able to compete in the global market, the food industry needs to produce products that are not only of high quality and safe for consumption, but also unique, innovative, and highly competitive. In addition, aspects of standardization and certification have not been evenly applied by local food industry players. Many MSME players have not been able to meet international quality standards, such as ISO, HACCP, and halal certification which are needed to penetrate the export market. This problem is exacerbated by the lack of assistance and incentive policies from local governments in supporting increased production capacity and marketing of local food products (Juliani et al., 2023). In the context of international investment and trade, the food sector shows enormous potential as a driving

force for the national economy. Data in recent years shows that investment flows in the food and beverage industry sector continue to increase, both from domestic and foreign investors (2024). Investor confidence in the stability of domestic demand, availability of raw materials, and export potential make this sector a promising destination. Investment not only plays a role in driving production capacity and technology adoption, but also creates a chain effect on labor absorption and industrial infrastructure development in various regions.

Exports of Indonesian food products also show a fairly positive trend, especially for leading commodities such as palm oil, coffee, tea, cocoa, fishery products, and other processed foods. However, the contribution of food industry exports to total national exports is still not optimal. Indonesia still faces challenges in increasing the added value of export products, most of which are still based on raw materials or semi-finished products. Compared to countries such as Thailand or Vietnam, Indonesia is still lagging behind in terms of product branding, logistics efficiency, and speed in responding to global market demand. On the other hand, the contribution of the food sector to labor absorption is quite significant, especially in upstream sectors such as agriculture and fisheries, as well as downstream sectors in the form of processing and distribution. The food industry is one of the sectors that absorbs a lot of female labor and informal workers, so it has an important social impact in creating jobs and reducing income inequality (Intan et al., 2024).

However, behind the potential and achievements that have been achieved, the food industry in Indonesia still faces a number of complex structural challenges and obstacles. One of the biggest obstacles is the lack of integration of the supply chain system from upstream to downstream. Dependence on imports of certain raw materials, such as wheat and soybeans, makes this sector vulnerable to global price and supply fluctuations. In addition, many food production centers are not well connected to processing industry centers due to limited transportation, storage, and logistics infrastructure. This causes distribution inefficiencies and very high post-harvest waste.

Another obstacle is the suboptimal synergy between government agencies in developing the food industry as a whole. Unsynchronized regulations between the central and regional governments, as well as frequent policy changes, often create uncertainty for business actors. Meanwhile, structural challenges also include the issue of human resources

that are not fully ready to face the transformation of the modern food industry. Low technical skills, lack of training, and minimal understanding of industry standards are barriers to improving the quality of the workforce in this sector (Dharmayanti et al., 2023).

Aspects of food safety and consumer protection are also increasingly important issues in the context of the modern food industry. Many local food products still do not meet adequate safety and hygiene standards, either due to limited technology or weak quality control. On the other hand, the threat of climate change that has an impact on the availability of food raw materials, such as agricultural and marine products, is also a long-term challenge that must be anticipated. This requires adaptive and innovative policies that integrate a sustainability approach throughout the food industry value chain.

To overcome these challenges, a comprehensive and collaborative policy approach is needed between the government, private sector, research institutions, and the community. The transformation of the food industry towards a more sustainable, innovative, and global market-oriented direction requires major investments not only in the form of physical capital, but also in strengthening institutions, increasing human resource capacity, and building an inclusive innovation ecosystem. Support for small and medium industry players through training, access to financing, and technical assistance is key to increasing the competitiveness of the local food industry in the era of the digital economy and free trade.

Conditions of Food Affordability in Indonesia

Community access to staple foods is a central issue in the debate on national food security. Amid economic growth and modernization of the agricultural sector, most Indonesians still face obstacles in obtaining sufficient, nutritious, and affordable food. Staple foods such as rice, corn, cooking oil, sugar, and eggs are important indicators because they directly affect household consumption, especially for low-income groups. This limited access is not only influenced by the availability of national supplies, but also by geographical distribution, logistics infrastructure, and uneven purchasing power. In this context, structural factors and government policies play a very important role in determining how people can obtain staple foods properly (Dwiartama et al., 2023).

Disparities in food prices between regions and income groups are a reflection of imbalances in the distribution system and market access. In large urban areas, access to food tends to be more stable with relatively

competitive prices due to the existence of infrastructure and proximity to distribution centers. In contrast, people in remote, border, and island areas face higher food prices due to expensive transportation costs, long supply chains, and minimal market intervention. This creates inequality that exacerbates economic vulnerability, especially for poor households. In addition, low-income groups tend to allocate a much larger proportion of their income to food needs than high-income groups, making food price fluctuations have a significant impact on their economic resilience. When prices rise, consumer choices become limited, and balanced nutritional consumption is often sacrificed, which then leads to chronic nutritional problems such as stunting or chronic energy deficiency. In an effort to address this inequality, food subsidies and price policies are strategic tools used by the government. Subsidies, such as the Non-Cash Food Assistance program or the distribution of rice through the National Food Agency, aim to ease the burden on poor households so that they still have access to basic food. Price stabilization policies through market interventions such as low-cost market operations, setting the highest retail price, and strengthening government food reserves are steps to reduce price fluctuations in the market. However, the effectiveness of these policies often faces challenges such as inappropriate distribution, inaccurate data on aid recipients, and weak supervision in the field. On the other hand, subsidies are also vulnerable to deviation if not accompanied by a good monitoring and evaluation system (Stöber et al., 2021). Therefore, food policy requires an approach that not only focuses on economic aspects but also considers the social and cultural dimensions of community consumption. Household food security is a direct reflection of socio-economic conditions and the ability to access nutritious food sustainably. Households with irregular incomes, working in the informal sector, or living in areas with limited market access tend to experience instability in food consumption. Food security is not only about availability, but also includes physical and economic access, as well as proper utilization in consumption patterns. When food security is disrupted, households will take adaptation strategies such as reducing portion sizes, choosing cheap foods with low nutritional quality, or even reducing meal frequency. If this strategy continues for a long time, it can reduce the quality of life and cause food poverty. In this context, food poverty refers to a condition when households do not have the ability to meet basic food needs in sufficient quantity and quality for a healthy and productive life (Mukhlis & Gürçam, 2022). This

situation becomes even more complex when linked to aspects of health, education and work productivity.

Food security and food poverty are important indicators in assessing the quality of human development. In the long term, limited access to staple foods can reinforce the cycle of intergenerational poverty. Children from families with low food security are at risk of experiencing developmental disorders, poor academic achievement, and low levels of productivity as adults. Therefore, interventions to strengthen household food security must be multisectoral, involving synergies between social, economic, agricultural, and infrastructure policies. An inclusive and data-driven approach will help identify the most vulnerable groups and design targeted programs. In this regard, strengthening local food systems, empowering small farmers, and diversifying food sources are important steps to ensure equitable access to staple foods for all levels of society, as well as reducing social and geographic inequalities that have been the main obstacles to achieving sustainable food security in Indonesia.

Correlation Analysis between Industrial Performance and Food Affordability

The relationship between food industry growth and price reductions or increased access reflects the complex dynamics between production, distribution, and market policies that influence each other. When the food industry experiences growth, whether in terms of production capacity, technological innovation, or process efficiency, it will theoretically increase the supply of food to the market. This increase in supply can suppress food prices in general, especially if demand tends to be stable. The long-term effect is better food affordability, because lower prices allow more people to access food that was previously difficult to reach, either due to price or geographic distribution (Mekonnen et al., 2023). However, this relationship is not always linear or automatic, because industrial growth does not necessarily guarantee cheaper prices or more equitable access without being supported by infrastructure, fair distribution policies, and effective price controls. In the context of developing countries such as Indonesia, food industry growth is often concentrated in certain areas with adequate infrastructure, such as Java or other strategic industrial areas. This creates a gap in access for people in remote or disadvantaged areas, where distribution costs are the main factor determining the final price of food. Therefore, the role of distribution and logistics is very crucial in connecting the food industry with end consumers. An efficient logistics system allows food products produced by the industry to be

distributed widely to various regions, maintaining freshness, reducing waste, and reducing transportation costs which are usually the main cause of price spikes in non-producing areas. Cold chain technology, modern warehousing systems, and optimization of multimodal transportation are part of logistics efforts that can shorten the supply chain and reduce price disparities between regions (David et al., 2022). On the other hand, the role of logistics does not stop at technical efficiency, but is also related to the design of an inclusive distribution system. Inequality in the distribution of food industry products to vulnerable populations is a problem that cannot be ignored. Community groups such as the urban poor, indigenous peoples in remote areas, or households without access to formal markets are often those who do not directly benefit from the growth of the food industry. The distribution of food industry products tends to follow market logic, which prioritizes economic efficiency and profit, rather than social justice. As a result, these vulnerable groups continue to have difficulty obtaining food at affordable prices or of decent quality, even in conditions where national food production is increasing (Kim et al., 2021). This inequality reflects a failure to integrate food industry policies with inclusive food security goals. State intervention or regulations are needed to direct the distribution of food products to channels that reach economically or geographically marginalized populations. For example, logistics subsidy programs, strengthening food SOEs to reach 3T (underdeveloped, frontier, outermost) areas, or incentives for industry players who distribute products to areas with low market potential but high demand. Without such policies, industrial growth could actually widen the gap in food access between community groups, where only certain groups can enjoy stable food prices, while others must face high price volatility and limited supply (Mostenska et al., 2022).

In the long term, solutions to the inequality of food distribution and efforts to increase community access to staple foods require a systemic and cross-sectoral approach (Xie et al., 2022). Collaboration between industry players, government, logistics players, and non-governmental organizations needs to be developed within the framework of food justice (Ambikapathi et al., 2022). In addition, investment in rural logistics infrastructure, training of small business actors in the distribution sector, and the use of digital technology to shorten distribution channels can be concrete steps that improve connectivity between production centers and end consumers. Realizing an inclusive food system is not only about increasing production volume, but about how to ensure that the results of this production actually

reach every level of society without exception, both in terms of quantity, quality, and affordability. Thus, the growth of the food industry that is not accompanied by improvements in distribution and logistics actually risks creating a paradox, where the country experiences a production surplus but some people remain hungry or malnourished. Therefore, the distribution aspect must be a key element in the national food industry development strategy. Efficient, equitable and integrated distribution is the main bridge that transforms industrial growth into real benefits for all people, especially vulnerable populations who have been on the fringes of the national food system. In an era where food security is increasingly linked to social stability and sustainable development, addressing distribution inequality is no longer an option, but an urgent need.

CONCLUSION

The economic performance of the food industry in Indonesia has shown significant development in recent years, marked by the growth of the sector's GDP, increased investment, and a large contribution to job creation. The productivity and competitiveness of the local food industry continue to be encouraged through strategic policies, technological innovation, and improvements in the quality of human resources. However, amidst this progress, the national food industry still faces structural challenges, such as limited infrastructure, uneven distribution, and dependence on imports of certain raw materials that can affect the stability of supply and prices.

The relationship between the economic performance of the food industry and food affordability shows a close correlation. When the food industry develops positively, production capacity increases, distribution becomes more efficient, and food prices are relatively more stable. This has a direct impact on people's access to basic food, especially for low-income groups and people in remote areas. Conversely, when the industry experiences obstacles, such as disruptions to the supply chain or increases in production costs, food affordability is also disrupted, which can increase the risk of food vulnerability in various levels of society.

Overall, the findings show that improving the economic performance of the food industry needs to be accompanied by policies that ensure fair and equitable distribution of production results. The government plays an important role in creating a conducive business climate, strengthening food logistics infrastructure, and stabilizing prices through targeted market interventions. Thus, the growth of the food industry is not only a

macroeconomic indicator, but also a foundation for realizing inclusive and sustainable food security for all Indonesian people.

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