Implications Of Indonesian Tea Industry Involvement in Global Production Network: Downgrading or Upgrading?

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ABSTRACT

Since 21st century, the production system of capitalism has experienced rapid development with the globalization of production. The pattern of production is segmented, where a product is not only produced in one country or what is called as global production network (GPN). As a developing country, Indonesia is also involved in the GPN and create global value chain (GVC). One of the industries favored by Indonesia in the GPN is the agricultural industry. Many studies have examined the extent of Indonesia’s involvement and how the impact of Indonesia’s involvement in the GPN will be. However, not many have studied the specifics of commodities. This study examines how tea industry involvement in GPN has a social and economic impact using the framework developed by Handerson on the influence of value, power, and embeddedness on the social and economic improvement of GPN activities. Taking tea industry as a case, the results show that the industry’s involvement in the GPN can have a positive impact on development in Indonesia.

Keywords: global production network, tea industry, upgrading, economic development.

INTRODUCTION

One of the most important stages in economic activity is commodity production. Along with the development of the industrial revolution, the pattern of production has also increased in terms of efficiency. The change in the pattern of production can be seen from the switch of Taylorism to Fordism, and continued to post-fordism in the early 21st century until now. Post-Fordism is characterized by a significant change in the principles of industrial governance, where the orientation of production depresses not only the cost of production, but also efficiency in the entire process of economic activity.

The existence of a transnational division of labor makes the industrial pattern in each country different. Countries with more advanced resource and infrastructure capabilities no longer produce raw and semi-finished materials in their countries, but
instead shift their manufacturing production tasks to developing countries. As a country that has a lot of raw material potential, Indonesia plays a role in the industrial manufacturing process of developed countries. The role taken by Indonesia is a supplier of raw materials and finished materials for products of international brands. Among the many sectors developed by Indonesia, agriculture is one which has a high potential in the involvement of global production chains. In addition to coffee beans and rubber, Indonesia also has tea commodities that contribute to the growth and development of the national economy through export activities.

According to research conducted by Sri Anna Febriyanthi (2008) during the period 1996 - 2005 the development of the growth rate of tea productivity in Indonesia showed an increase of 11.7%, but the growth rate of Indonesian tea commodity production only increased slightly, namely by 0.71%. In terms of export power, Indonesia had a high export value in 2000 to 2003, but experienced fluctuations afterwards, until it fell steadily from 2010 to 2015. The low value of tea exports is accompanied by a decrease in the area of tea plantations from year to year. This is unfortunate considering that the demand for tea in the global market is quite high. According to the secretary of the FAO intergovernmental tea group during an international tea meeting in Bandung in 2014, it is estimated that tea production, consumption and exports will continue to grow for the next decade. Global production which in 2012 ranged from 3000 tons will increase to 3400 thousand tons, consumption from 3000 thousand tons to 3500 tons more and exports from 1500 rise slightly to 1600 thousand tons (Chang, 2014).

Although it has potentiality to improve the welfare of the national economy, research on the tea industry in Indonesia has not been as much as coffee, cocoa, rubber, and palm oil commodities. This is because the tea commodity is not a leading export commodity in the Ministry of Trade so it does not have infrastructure support for its development. The absence of serious attention in the development of the domestic tea industry eventually led to a relatively small contribution value in the export value of Indonesian agricultural commodities.

So far, research on the involvement of the Indonesian agricultural industry in the global chain still focuses on leading commodities such as coffee. Ibnu’s research (Ibnu, 2023) proves the upgrading of market access in coffee commodities in Indonesia which is achieved through a combination strategy in GVC. Another research on upgrading in the
Indonesian agricultural industry sector was conducted by Vicol et al (Vicol et al., 2018) which criticized the dominant development discourse in Indonesia’s coffee industry, which only gives benefits for certain individuals in the producer community who are able to accumulate wealth and consolidate their social position, rather than for the poor farmers (Vicol et al., 2018). Among the existing researches, it is still rare to analyze how Indonesia is positioned in the global production chain process of the tea industry. This paper will discuss how the Indonesian tea industry’s involvement in global production networks and its effect on national development will be portrayed.

ANALYTICAL FRAMEWORK

In order to determine the analysis of the involvement of the Indonesian tea industry in the global production network and its implications for development, this paper uses the framework of the global production network theory and its implications for development developed by Henderson, et al (Henderson et al., 2002). This theory explains how a company's involvement in a global production network can have implications for economic upgrading. Through this theory, there are three conceptual categories that drive the success of an enterprise in the global production network, thus having implications for economic development. The three conceptual categories include:(Henderson et al., 2002)

1. Value. The value in question is an excess value or surplus in the orthodox economic sense. The added value of a product can increase as the production process improves, the quality of technology and labor. In addition, branding is also one of the efforts to increase value through product marketability.

2. Power. Power or power in question is the relationship between business people and other institutions that can exert pressure on business actors in the production process. This relationship can sometimes be a barrier or impetus for business actors to achieve development and prosperity. In the global production network, there are three powers that play a significant role, including: 1) corporate power, whose decisions can affect the allocation of resources and whose strategy can be an input for other policymakers; 2) institutional forces, whether originating from local or national governments, regional organizations and associations such as ASEAN, European
Union, international financial institutions, and other international organizations or associations such as the United Nations. 3) Collective power, that is, power that comes from civil society or NGOs and can influence the policies of local governments and international organizations.

3. Embeddedness. The concept of embeddedness in question is the spatial and territorial aspect in which a company is integrated with a certain network. When a company with a global production network commits to a region, it certainly has an impact on creating and adding value. In addition to spatial aspects, embeddedness also includes networks that are established between business people, for example mutual trust with other actors who are members of a global production network. This is needed in building a stable business.

According to Henderson, the three categories include four dimensions of actors, namely firms or companies, sectors (technology and products/markets), institutions and networks. Each of those actor dimensions is configured and aligned to shape economic development.

The conceptual framework can explain how added value is attached to tea commodities in Indonesia, be it by adding production processes, branding, or improving labor skills. Elaboration on value is important in order to know three things. First, how far Indonesia tea production in the international market and where the value is created from. Thus, it can be understood how much benefit Indonesia has gained for its participation in the global production network for tea commodities. Second, knowing how foreign and domestic policies affect the growth of Indonesia’s tea industry in the global production network of tea commodities. Third, how the attachment of Indonesian tea commodities to networks and territories provides confidence so that Indonesia’s tea commodities have smooth process of creating added value. From these three analyses, it will be known the implications of Indonesia’s involvement in the global production network of tea commodities on national economic development. Can this be categorized as social economic upgrading or economic downgrading?
RESULT AND DISCUSSION

According to regulation of the Minister of Agriculture of Republic Indonesia in 2014, the agricultural sector plays a strategic role in the Indonesian economy because it can raise up to US$ 156.74 million in foreign exchange until 2014. This is the net foreign exchange from the small import component. The tea industry contributes around Rp. 1.2 trillion to the national GDP. According to BPS statistical data (2017), the GDP contribution increased in 2017 (BPS, 2018). Of the contribution of business fields of 13,589 trillion, the contribution of the tea sector to GDP in 2017 consisted of 2,739 trillion (20.16%) in the processing industry, 1,786 trillion (13.14%) trillion in agriculture, 417 trillion (3.47%) in the plantation subsector. The tea sector is managed by three parties, namely People’s Plantations (PR) covering an area of 46%, State Large Plantations (PBN) amounting to 31%, and Large Private Plantations (PBS) amounting to 23% of the total plantations. The productivity of each area includes PR of 36%, PBN of 40% and PBS of 24% (Ministry-Agriculture, 2016).

At least, there are 71 countries that are the market share of Indonesian tea. In 2017, the top five countries that became importers of Indonesian tea successively were the Russia Federation with a total export volume of 9,324 tons or 17.20 percent of the total export volume of Indonesian tea with a value of US$ 15.7 million. The second is Malaysia with an export volume of 8,795 tons or has a contribution of 16.23 percent and an export value of US$ 14.7 million. The third is Pakistan with a contribution of 7.89 percent or its export volume of 4,277 tons with an export value of US$ 10.5 million, while the US and Germany, are in fourth and fifth positions. Meanwhile, tea exports to the US in 2017 reached 3,665 tons or around 6.76 percent with an export value of US$ 5.8 million, while for Germany, it was 3,571 tons or 6.59 percent with an export value of US$ 5.7 million. Next are Poland, the United Arab Emirates, Taiwan, Australia, and China with a contribution of between 3.03 percent and 5.01 percent to Indonesia’s total tea exports in 2017. Nevertheless, in the same year Indonesia was among the countries that experienced a decline in tea sales, with a total decline of -27.6%, along with Vietnam (down -46%), India (down -27.6%), the UK (down -26.1%) and Argentina (down -26.1%). -18,2%) (Workman, 2022).
Among the entire market share, Western Europe is the market leader in tea products. Western Europe accounts for about 6% of the world’s tea consumption. Most tea products are dominated by several major players who have certificate labels (environmental quality, social, justice, etc.) which are much loved by European consumers. With a 63% market share, the United Kingdom is Western Europe’s largest tea consumer. Black tea, which is imported from Kenya and other East African countries, accounts for approximately 90% of tea consumption in the United Kingdom. In 2010, tea consumption in the country reached nearly 122,000 tons. Although Kenya supplied more than half of the UK’s tea import volume, other big suppliers included Indonesia, China, and India (Groosman, 2011).

Indonesia tea exported to these countries is premium tea, produced by large state-run plantations (PT. Nusantara Plantation) and private (KBP. Chakra, etc). Premium tea is hardly consumed domestically, because domestic consumption is still much lower than the global market, judging from Indonesia’s low per capita tea consumption level when viewed from Indonesia’s per capita tea consumption rate. Even if domestic middle-class consumers consume premium types of tea, the products purchased are not the result of downstream of Indonesian products, but packaged teas from well-known brands such as Twinings and Dilmah that are imported. The Indonesian tea industry has tended to act as a supplier of blender companies that have world-scale tea brands, such as Unilever, Twinings, Tata Tea Beverages.

Seeing the high demand for global tea, the role as a supplier, is still an opportunity if the quality produced by Indonesia can compete on a global scale. The world’s own black tea production is expected to increase by 2.2 percent per year over the next decade, reaching 4.4 million tons by 2027, reflecting only China, Kenya, and Sri Lanka as the world’s largest exporters of black tea. Meanwhile, green tea production is expected to grow at a rate faster than 7.5 percent per year, reaching 3.6 million tons by 2027, largely driven by China. (FAO, n.d.).

Data from the Indonesian Ministry of Agriculture, during the period 2010-2014 there were five countries that contributed to producing the largest tea in the world. The five countries in total contributed a cumulative of 81.71% to the total area of plants
producing tea in the world. China is the largest, with 49.51% of the world’s tea-producing plant area. India is the second country with a plant area producing 16.90% tea, Sri Lanka (6.35%) and Kenya (5.45%). Indonesia is in fifth place with a plant area producing 122 thousand ha or contributing 3.50% to the tea area in the world. The rest are the various other countries that contribute 18.29% to the total area of the world’s tea-producing plants (Ministry-Agriculture, 2016).

**Value Analysis in Tea Industry**

Indonesia currently exports tea to 71 countries. In 2017, the top five countries that became successive importers of Indonesian tea were the Russian Federation, with a total export volume of 9,324 tons, or 17.20 percent of the total export volume of Indonesian tea, valued at US$ 15.7 million. The second is Malaysia with an export volume of 8,795 tons or has a contribution of 16.23 percent and an export value of US$ 14.7 million. The third is Pakistan with a contribution of 7.89 percent or its export volume of 4,277 tons with an export value of US$ 10.5 million, while the US and Germany, are in fourth and fifth positions. Meanwhile, tea exports to the US in 2017 reached 3,665 tons or around 6.76 percent with an export value of US$ 5.8 million, while for Germany, it was 3,571 tons or 6.59 percent with an export value of US$ 5.7 million. Next are Poland, the United Arab Emirates, Taiwan, Australia, and China with a contribution of between 3.03 percent and 5.01 percent to Indonesia’s total tea exports in 2017 (Workman, 2022).

All Indonesian tea exported to these countries is premium tea, produced by large state-run and private plantations. Premium tea is hardly consumed domestically, because domestic consumption is still much lower than the global market, judging from Indonesia’s low per capita tea consumption level when viewed from Indonesia’s per capita tea consumption rate. As a global exporter, Indonesia was once the fifth largest tea producing country in the world after India, China, Sri Lanka, and Kenya. Most of the exported (about 94%) are still in bulk form (Suprihatini, 2016). Indonesia’s tea exports are generally divided into black tea and green tea. During 2008-2012, Indonesia exported more black tea despite fluctuations in the period (Samudera et al., 2017).
In 2011-2015, the development of Indonesia’s tea trade balance tended to be positive. In 2011, the tea trade balance experienced a surplus of 139 million US$. However, in 2015, the surplus of tea fell to 100 million US$ (Kementrian-Pertanian, 2016). According to data in Statista, Indonesia was ranked 7th in the world as a tea exporter country in 2014. Indonesian tea has a fairly strong comparative competitiveness when compared to six countries in Southeast Asia with a tendency to become an exporter at the export expansion stage (Nursodik et al., 2022). The export value of Indonesian tea was reported at 1,535 million USD in May 2019. This amount is up compared to the previous 0.396 million USD in April 2019. Data on the value of tea exports from January 2012 to May 2019 reached the highest figure of 13,351 million USD in February 2013 and the lowest figure of 0.054 million USD in July 2017 (CEIC, n.d.)

Indonesia’s position as a supplier to major Western European countries also contributes to market creation and has implications for value creation. However, over the past decade, the Central Statistics Agency (BPS) noted that the value of tea exports has decreased by 7.43% with an export value of US$ 89.16 million in 2021 (Widi, 2022). This decrease in surplus has also occurred before accompanied by the area of tea in Indonesia which experienced fluctuations in 1980 - 2016. However, there is no significant influence between the amount of tea production and the volume of exports, because not many factories are able to meet export quality standards, thereby reducing supply in the global supply chain (Inzani et al., 2022). This means that the influence of technological developments and infrastructure is the most influential in the availability of tea supply to the international market.

The level of competitiveness of tea in 2010 and 2016 showed a high competitive value when compared to other domestic commodities, where the factors that support the competitiveness of the tea industry are the development of the agro-tourism industry and tea ready-to-eat beverage companies (Djohar, 2018). However, at the international level, the results of research conducted by Zakariya et al (Zakariya et al., 2012) found that the competitiveness of Indonesian tea is relatively lower than Kenya, Sri Lanka, India but still higher than China while competitively showing that Indonesian tea commodities have strong competitiveness because internal and external factors in tea production are
readily available. Tea commodities from Indonesia and Vietnam are highly competitive in the global, Russian, and Pakistani markets. In the global market, Vietnamese tea is more competitive than Indonesian tea, whereas in the Russian market, the opposite is true. In the global market, Indonesia and Vietnam have a tendency to be exporting countries for tea commodities, as do Russia and Pakistan (Jannati et al., 2020).

**Power analysis in tea industry**

In the global production of tea industry, Indonesia has always tended to act as a supplier of blender companies that have world-scale tea brands, such as Unilever, Twinings, Tata Tea Beverages. As a supplier of raw materials for the large tea blender company, there are implications for the governance of its domestic tea industry. One of the implications of involvement in this global production network is the adjustment of Indonesian tea companies to lead firm policies, for example requiring Indonesia to adjust the rules regarding sustainability which is the vision of the brand company. When Unilever initiated the sustainable sourcing method through Lipton tea products, it caused Indonesian supply companies to have the same certification. PT. PN (Perkebunan Nusantara) VIII as the main tea supplier in Indonesia must implement the certification desired by Unilever. Rainforest Alliance (RA).

Unilever works with a third party, a certified agency called the Rainforest Alliance, to assess suppliers based on an evaluation of how far supply companies meet certification standards and how strategic they are in meeting Unilever’s needs in large-scale markets. This prompted Unilever to form an assessment group comprised of brand developers, inventory managers, corporate responsibility executives, and Unilever managers to conduct an integrated analysis of social, environmental and economic. For over a four-month period, this program impacts the entire supply chain o Lipton’s and its product value chain (Braga & Strebel, 2011). With a third-party guaranteeing product standard determined by Unilever, there is an effort by the lead firm to control product quality in each of its supply chains.

The encouragement to implement production ethics from Unilever is also inseparable from the encouragement of norms and rules from international and regional
organizations related to sustainable business ethics. Since 2016, the United Nations (UN) has initiated the Sustainable Development Goals (SDGs), which was inaugurated at the United Nations Conference on Sustainable Rio de Janeiro's growth in 2012. The goal of SDGs is to create a universal set of goals that address the world's most pressing environmental, political, and economic challenges. The program is a continuation of the Millennium Development Goals (MDGs) on global efforts in 2000 to address poverty. The SDGs target 17 interconnected points, where success in one affect success for another. The points added to the SDGs address the threat of climate change, specifically how to manage natural resources, achieve gender equality and better health, aid in poverty eradication, and promote peaceful and inclusive societies in order to reduce inequality and build a prosperous economy. Sustainable development according to Brundtland’s definition is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Ekiugbo & Papanagnou, 2017).

The principles in the SDGs affect not only the public sector, but also the private sector as a practical opportunity for companies to provide global solutions. Ban Ki Moon, the UN Secretary-General at the time, was candid that in the next 15 years it would not go without cooperation with the private sector. The existence of this principle has influenced the company's Corporate Social Responsibility model, not just philanthropy, but companies are required to be authentic, transparent, and responsive to the needs of society. In the end, this principle also affects the company’s business model.

In addition, at the regional level, the European Union also has rules to enforce the norms of sustainable production by issuing the New Industrial Strategy for Europe. The EU's green industry policy framework aims to contribute to green industry, by establishing a set of principles and guidelines for the development of a strong EU green industry policy (Tagliapietra & Veugelers, 2021).

Regulations around production ethics for companies arise inseparable from consumer demands in European countries that encourage the growth of environmental awareness among industry. Campaigns on environmental awareness that are rife in Europe have made consumer’s interest change, no longer just in the quality of the product, but also the social consequences behind the production process. This is a
manifestation of the existence of collective power that comes from civil society or NGOs and can influence the policies of international organizations that encourage changes in production ethics (Josephine & Are, 2022).

The embeddedness of tea industry

The concept of embeddedness is the spatial and territorial aspect in which a company is integrated with a certain network. When a company with a global production network commits to a region, it certainly has an impact on creating and adding value. In addition to spatial aspects, embeddedness also includes networks that are established between business people, for example mutual trust with other actors who are members of a global production network. This is needed in building a stable business.

In Indonesia, there are 15 companies supplying tea to Unilever brands consisting of private and state-owned companies (Unilever, 2020). These companies are spread in various regions, not only on the island of Java. However, of all the existing supplier companies, PTPN is the largest. Tea area plantation of PTPN is in Java and outside Java, consist of PTN VI, PTPTN VII, PTPN VIII, PTPN IX. PTPN's business activities consist of crop cultivation, processing/production, and commodity sales from tea plantations (PTPNVIII, 2013).

Tea plantations have a significant social and economic impact on the communities around the production area. For example, the Tambi plantation in Kertek district, which is now managed by PTPN, has had a positive impact on residents through the creation of jobs for residents. Community welfare is built through schemes to improve the welfare of company employees with life support facilities. The existence of the Tambi tea factory in Kertek District has also had an impact on the livelihoods of the surrounding community, both direct and indirect impacts. In addition, the existence of a tea plantation area also invites the exoticism of the panorama in the area, so many visitors come to enjoy the tea garden. This has implications for the creation of micro-businesses outside tea factories such as food stalls, workshops (Agung, 2010). In addition to Tambi, socioeconomic impacts also occurred in the Wonosari Tea Plantation, Toyomarto village, Malang regency. The development of the tea plantation business in the village has brought a
positive influence to the community with the existence of jobs and plantation facilities that can also be enjoyed by the community in meeting the daily needs of its residents. This is also supported by the advancement of the company's infrastructure in the form of renovation and repair of machines, the development of equipment capacity in the production process so that it is able to increase production activities that have an impact on the welfare of its workers (Imama & Parwata, 2014).

CONCLUSIONS

In terms of value creation, Indonesia has a great opportunity to create added value in the sector, this is because the competitiveness of Indonesian tea production in the world market is quite high. However, the existence of power regarding environmental certification standards and worker feasibility makes it difficult for Indonesian tea supplier companies to manage production costs efficiently. This is because certification labels are obtained through certification bodies that are quite highly paid. As for the risks that will be explored if they do not have the certification label, Indonesia will be vulnerable to accessing several world markets, for example markets in Europe. As is the case in oil palm plantation commodities, the European Union has officially endorsed a draft energy proposal that eliminates the use of oil palm. The energy proposal provides for the use of renewable energy at least 35 percent of Europe's overall energy use by 2030. With this commitment, the European Union stopped palm oil exports based on production processes that led to the burning of forest land. Meanwhile, in terms of business growth, supplier companies that are permanent suppliers of international brands such as Unilever already have well-established plantation areas with large production capacities and tend to be stable. This has implications for the economic and social welfare of the communities around the plantation, either directly or indirectly. The opening of the plantation area, not only opens job opportunities for residents, but also grows the microeconomic sector with the presence of new tourist attractions due to the panorama that stretches from the results of the planting (European Union Officially Bans the Use of Palm Biodiesel, n.d.)

From these findings, the involvement of the Indonesian tea industry in the global production network tends to have an upgrading impact in terms of community economic
development. Nevertheless, Indonesia must continue to control its production capacity and production quality in order to remain competitive in the international market, to create higher added value.

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