



# The Indonesian Global Cocoa Chain's Position in the Pandemic Era

Hasna Wijayati<sup>1</sup>, Halifa Haqqi<sup>2</sup>

<sup>1,2</sup>Department of International Relations Studies, Universitas Slamet Riyadi, Indonesia

---

## Article Info

### Article history:

Received: April 22, 2022

Revised: May 11, 2022

Accepted: May 27, 2022

---

### Keywords:

Cocoa;

Global Value Chain;

Indonesia;

Pandemic.

---

## ABSTRACT

In the GVC of cocoa commodities, Indonesia has a potential position as one of the suppliers of cocoa commodities. However, the cocoa industry sector is increasingly threatened when the world enters a crisis period due to the global pandemic in early 2020. For this reason, Indonesia has made many efforts to maintain its position in the GVC of cocoa commodities. This study attempts to analyze Indonesia's position in the global cocoa chain in the pandemic era. The method used is qualitative research with a library research approach. The theory used to analyze focuses on global value chain theory. This study finds that Indonesia's tried to maintain its position in global cocoa chain through economic stability, both at the domestic and global levels. This position is described in the aspect of increasing the contribution of cocoa commodities to GDP, increasing the export market share of Indonesian cocoa commodities in the global market, as well as increasing the competitiveness of the Indonesian economy. This condition becomes a parameter to measure the performance of Indonesia's political economy as well as demonstrates the capability of the Indonesian government in dealing with the global crisis due to the pandemic and minimizing the impact of the crisis on national stability. Thus, it can be concluded that Indonesia can still maintain its position in the global cocoa chain as an important supplier.

---

*This is an open access article under the [CC BY-NC](https://creativecommons.org/licenses/by-nc/4.0/) license.*



---

## Corresponding Author:

**Hasna Wijayati,**

Department of International Relations,

Universitas Slamet Riyadi,

Jl Sumpah Pemuda 18, Surakarta, Jawa Tengah 57136, Indonesia.

Email: [hasna.wijayati@unisri.ac.id](mailto:hasna.wijayati@unisri.ac.id)

---

## 1. INTRODUCTION

For Indonesia, cocoa is one of the important sectors to boost the economy. Cocoa commodity opens up wider job opportunities, as well as increases the country's foreign exchange. Data from the International Cocoa Organization (ICCO) places Indonesia as the third largest cocoa producer in the world, which accounts for up to 15% of the world's total cocoa consumption. It's just that, judging from the quality and quality, Indonesia is still in fifth place after Ivory Coast, Ghana, Nigeria and Cameroon (Eko Nurhadi, 2019). This condition shows that the competitiveness of Indonesian cocoa commodities in the global market is not yet optimal.

The competitiveness of Indonesia's cocoa commodity which is not yet optimal is a challenge for Indonesia to be able to continue to develop. Moreover, Indonesia is not yet a major exporter of

cocoa in the international market. Indonesia is not even in the top five global cocoa exporters, with only 1.01% share of Indonesia's cocoa exports going global in 2019 (oecd, 2021). Although, for Indonesia, cocoa industries are dominated by international trade due to this the low consumption of local communities to cocoa and the low absorption capacity of the domestic cocoa processing industry (Wardhany & Adzim, 2018: 237).

However, when viewed from the Global Value Chains (GVC) scheme, Indonesia already has a strategic position in the global cocoa chain. This can be seen from the high production potential of Indonesian cocoa beans, so that they are able to export various processed cocoa products. Almost 80% of Indonesian cocoa production was exported to the international market (Wardhany & Adzim, 2018). This shows that Indonesia's contribution to global value chains or global production networks (GPN) is quite potential. However, the value added produced is not optimal because it still dominated by cocoa beans so this industry depends on the cocoa processing industry sector of other countries. So, when a problem occurs in the international market, this has the potential to have an impact on Indonesia's cocoa supply.

In GVC, a country is said to occupy a strategic position in the commodity market by optimizing the value added obtained. The value added of Indonesian cocoa in GVC can be said to be low with a low export share. Moreover, Indonesia is at the level of suppliers of semi-finished commodities. The majority of Indonesian cocoa commodities exported are still in the form of semi-finished raw materials, such as cocoa butter, cocoa powder, and other industrial raw materials. Products with value added that are not yet optimal are sent as main commodities to various cocoa processing industries in importing countries to increase their added value (Shandri, 2017).

The Indonesian cocoa grinding industry is also developing quite slowly. The level of innovation presented by Indonesian cocoa producers is low. This is because the majority of Indonesian cocoa producers are produced from smallholder plantations. At least 92.34 percent or 1,400,636 MSMEs of cocoa farmers dominate Indonesia's cocoa plantations (Shandri, 2017). It is from these farmers that cocoa beans are obtained and processed to be shipped as a commodity that contributes to global value chains. The majority of cocoa products produced by smallholders are actually used to meet the needs of foreign markets, and only a small part is marketed domestically. The main export markets for Indonesian cocoa products include Malaysia, America, China, India, and the Netherlands (BPS, 2017: 14).

As a result of Indonesia's position in the global value chain, Indonesia must continue to be alert to changes in the global situation. Moreover, when the world entered the era of the covid-19 pandemic. Covid-19 Pandemic brought the cocoa industry into shocks. Of course, Indonesia will also not be able to avoid the impact of this global crisis situation. In mid-2020 when the pandemic was at its peak, cocoa commodity prices declined by -11,6 percent. On the other hand, cocoa commodity experienced a high price increase in 2018 at 27,7 percent (UNCTAD, 2020: 7). There are many challenges faced by the supply chain of cocoa industry during the pandemic, with borders closing and travel grinding to a halt. Even more concerning, the Covid-19 crisis had a serious impact on the Ghanaian and Ivorian cocoa sector over the medium and long term. Both countries are the leader in the global cocoa industry, but it was expecting serious impact and gave billions of dollars of losses (Nieuwsbericht, 2021). Meanwhile, what about the resilience of the Indonesian cocoa industry?

For Indonesia, cocoa industry still plays an important role for the economy and international trade activity. Besides Covid-19 continuing to disrupt supply chains, industries, and markets across the globe in cocoa industry, this pandemic also reveals the resilience of the cocoa industry in Indonesia and its role in the global cocoa chain. Indonesian cocoa production has the potential to substantially increase. This can be seen from the insignificant impact of the pandemic on the Indonesian cocoa industry (Wijayati, 2022). But, sure the resilience of the Indonesian cocoa industry would depend on local political and economic factors. Therefore, this study seeks to analyze the importance of cocoa industry for Indonesia and what the Indonesian interest in this sector. This research questions about to describe how cocoa as a strategic industry in the pandemic era to increase Indonesia's global value chain contribution.

## 2. RESEARCH METHOD

This research is a type of qualitative descriptive research. Qualitative descriptive research seeks to capture meaning, process, and context that are not standardized in numbers. The approach used is the method of literature study. A literature study is a research method that focuses on content analysis through library data or literature studies. The process of collecting primary and secondary data is carried out by relying on library sources, both from official government documents, news, journals, and reference books. The data was then processed by qualitative descriptive analysis. Descriptive analysis was carried out through data sorting by looking at the validity of the data. Then data verification was carried out and continued with data analysis.

## 3. RESULTS AND DISCUSSIONS

### 3.1. Global Value Chain Development

Global Value Chain is a study that seeks to explore the interactions that occur between value distribution mechanisms and companies as actors of production and consumption that occur in international trade, or across countries. The concept of GVC was originally an initiation that was discussed in the Global Value Chains Initiative discussion sponsored by the Rockefeller Foundation. This concept was further crystallized by [G. Gerrefi \(2005\)](#), so it has an analytical focus that lies on the governance structure in managing international production networks.

UNCTAD's 2013 World Investment Report states that GVCs play an important role in world economic growth. In fact, the majority of world trade takes place in the scheme of intermediate products and services as part of the GVC process that continues to evolve over time. GVC can be said to be a complex concept so that it also gives rise to various concept definitions related to the global production paradigm. In this case, for example, ([Baldwin, R. and Venables, 2013](#)) introduced the concept called "spiders", which means that the production process takes place through many parts and components that are inseparable from each other, and "snakes", which means there is a sequential process from upstream to downstream that always has added value at each stage. In the end, this complexity resulted in a "factory-less goods producer" scheme.

In GVC, a producer can carry out a series of pre-production activities, such as design, engineering, and semi-finished processing, to gain control over the production of manufactured goods from upstream to downstream by involving many parties who can come from various countries. Each stage provides a certain amount of added value to the product. This means, in this activity, these producers do not fully enjoy the added value of their production goods, but are divided among various parties in various countries ([Amador, 2014](#)). This concept also needed reputation-building and manifested through joint purposes, collaboration practices, boundary-crossing processes, and also division of labor into which value chain members ([Yeoman & Santos, 2019](#)). The value chain talk about this in the interventions model, explained in the interaction between context, socio-economic constraints and intervention strategies ([Hainzer et al., 2019](#)).

GVCs explain how the fragmentation of production takes place with the support of a very diverse range of production, investment, human and technological organizations ([Barusman & Habiburrahman, 2022](#)). This complex value chain concept sometimes seems to only occur in the domestic sector. For example, when a producer in one country produces a semi-finished product and then exports it, The product is processed to obtain added value in one or more other countries, then re-imported to the initial producer so as to produce optimal added value for the final consumer. ([Casella et al., 2019](#)).

The high complexity and different scales of analysis of this production process make GVC a complex concept, and it is difficult to define, measure, and map the GVC of a commodity. There are many studies with various perspectives and concepts to define GVCs, for example, looking at the perspective of economic, social, and political interests. However, GVCs always show the same thing, namely the existence of an international trade process that encourages the process of optimizing the added value of the product range until the product is ready for consumption. The value chain that

used to take place mostly at the domestic level has grown to involve more than one country. In this case, there are complex interests that arise from countries that are involved or interact with each other (Christopher Sausman, 2015; Lindic, J., & da Silva, 2011).

When compared with the value chain proposed by Porter, the concept of GVCs has a difference. Porter's value chain focuses on how a company's strategy is implemented in business activities. While in GVCs, there is a broader discussion, including systems developed to optimize production networks, distribution mechanisms, organizational structures, and various other things in international production network schemes, for the interests of a country (Inomata, 2017). The analysis of GVCs is built on the basis of the policies of the actors involved in international relations, which are value-added while taking into account the production chain and market (Christopher Sausman, 2015).

The implementation and implications of GVCs within a country can vary widely. Some countries can take full advantage of GVCs to fulfill their national interests by increasing the benefits to the economy through GVCs. In this case, the activities of GVCs in a country can affect the macroeconomics of that country. The implications of GVC on the interests of the state can be seen in:

1. Impact on GDP (Gross Domestic Product) growth.
2. The impact on export market share
3. Determination of a country's international price and cost competitiveness

Judging from the government's interest in GVC analysis of a commodity, we can refer to several components that form the core of GVC, as stated by Raphael Kaplinsky and Mike Morris. The GVC analysis tools include (1) rents, (2) governance, and (3) upgrading (Raphael Kaplinsky, 2000). Rents are a form of the ability of companies or chain participants to protect themselves from competition that arises due to certain advantages that are not owned by all countries. Rents are considered a determining factor in aiding the specialization or differentiation of a country's international trade.

Governance indicators talk about power relations between actors in a value chain. This is illustrated by the relationship between the controllers of the value chain in a production process. (G. Gerrefi, 2005). This condition is closely related to the national interests. The government is the one has the power to coerce or suppress other parties in the value chain. Government policies can be forced to be implemented so that the direction of industrial development will run according to government policies. Through the industrial policies implemented, the government can play a role as the party that builds the operational environment at the domestic and global levels. The government can put intensive investment in the SMEs of cacao industries to accelerate development (Al-Nazer, 2022: 301).

The government has the authority to direct the operational environment that supports or otherwise hinders the development of the production of a commodity. This condition is very dependent on the supporting policies taken by the government (Widiartanti, 2016). These various policies and synergies with the industrial world can eventually lead to upgrading so that certain commodities can contribute to global supply value chains.

This theory will be a reference that is considered appropriate to the research. The rents, governance, and upgrading components can be used as an analytical tool to see how far the implementation of GVC in Indonesian cocoa commodities is in the pandemic era. Then, the analysis is also strengthened to analyze Indonesia's interest in the GVC from the implications of the GVC in the form of competitiveness, market share, and economic strength (GDP).

### **3.2. Indonesian Interest in Global Cocoa Chain**

Global Value Chains are concepts that present their own complexity in the interaction of the world economy. When talking about political economy, GVC is often considered an interesting topic and the most capable of explaining the globalization process. GVC dramatically changes the explanation of how the production process is organized to account for the increase in interdependence between

countries and also shifts the mercantilist paradigm in viewing the international trade process. Globalization gives birth to more complex economic interactions in international trade, both at the level of economic actors and governments. In this situation, GVC offers an explanation of the complexity.

The production of global value chains that are spread across countries makes the economies of the world's countries increasingly interconnected and even interdependent. This condition has implications for increasing the interdependence of a country. In other words, the interests of one country and those of another will be able to influence each other. The greater the economic integration, in the end, it will also reduce the political freedom of a country. The involvement and roles of the private, public, national, and international sectors are also becoming increasingly complex in one commodity, reducing the flexibility of government policy-making efforts.

The GVC study pays attention to the form of the transaction because the way the transaction is carried out reflects the structure of the power relationship between the parties, which ultimately determines the scope and magnitude of the distribution of value in trade. In the end, this also affects how a country packages its interests. For Indonesia, cocoa has great potential to fulfill its national interests, including when the pandemic hits Indonesia.

If traced further before the pandemic, Indonesian cocoa commodities continued to show positive developments. The government continues to try to fix various policies to encourage Indonesian cocoa productivity and increase its contribution to the global cocoa chain. This can be seen from the government's efforts to suppress exports of non-processed cocoa products and encourage efforts to develop cocoa bean processing. These efforts have a positive impact and provide strength for the Indonesian cocoa industry in the global market.

For example, in the last 25 years, for example, we can see that the Indonesian cocoa sector has experienced massive progress and growth. This can be seen from the wider base of cocoa plantations managed by domestic farmers. Interestingly, the strength of Indonesia's growing cocoa industry lies in the activities of small farmers. In fact, around 90% of Indonesian cocoa is produced by family farmers with cocoa trees managed by their private plantations. The ease of developing cocoa trees has increased the number of massive cocoa plantations. Indonesia currently has around 1.5 million hectares of cocoa plantations. The largest cocoa-producing area in Indonesia is on the island of Sulawesi, with an estimated percentage of 75 percent of Indonesia's total cocoa production area (Alifiberizky, 2021).

Analyzed with GVC, the first implication that can be generated from optimization is to increase GDP. With the ease of land expansion for smallholder farmers, the cocoa commodity clearly has great potential in its contribution to increasing GDP. The more people who expand their land and enjoy the benefits of cocoa, the greater the potential to increase GDP. This is also related to the second implication, namely its influence on the export market share. Small farmers, being the primary producers are the key players in the many area of food supply chain. They remain the most marginalized in the value chain and this can affect food sustainability (Hassan et al., 2021).

Cocoa is a commodity that is not only attractive in the domestic market. In fact, the majority of its commodities are intended to fulfill the export market. At least 80% of Indonesia's cocoa production is destined for the export market (Industry, 2020). Indonesia's cocoa exports have even become the fourth largest foreign exchange contributor to exports from the agricultural sector (after vegetable oil, rubber, and coconut). This condition further increases Indonesia's potential and its interest in carrying out wider integration in the global market through cocoa.

### **3.3. The Challenges of Indonesian Global Cocoa Chain in Pandemic**

Besides the potential effect of global cocoa chain, there are still weaknesses in Indonesia's cocoa commodities in the global market, namely the low value added or the low position of Indonesian cocoa commodities in the global market. This is because most of Indonesia's cocoa exports are raw beans. Only a small number of cocoa exports are processed cocoa (Wardhany & Adzim, 2018). This condition shows that the value added that contributes to the global market share obtained by Indonesia from the cocoa industry is still not optimal.



In recent decades, Indonesia has been trying to improve the competitiveness of this cocoa commodity in order to fulfill its interests. However, in the midst of efforts to continuously improve the quality and quantity of cocoa exports, a crisis arose due to the COVID-19 pandemic that took place all over the world. The presence of a global pandemic has affected the cocoa industry sector. Moreover, the GVC concept explains that the integration and interdependence due to the value chain that is formed is getting bigger. That is, when a shock occurs in one country, the impact will be felt more easily in other countries. This is because there are interrelated interests in commodity trading.

Cocoa for Indonesia is an important sector that also attracts national interest. This makes the government pay attention to the development of this sector. In the first semester of 2020, Indonesia still experienced an increase in exports of cocoa products by 5.13% compared to the previous year, or with a total export value of USD 549 million (Statista, 2021). This increase is the fruit of the government's efforts to improve the competitiveness of cocoa products. Indonesia has indeed shown a positive performance in recent years in the cocoa industry. However, due to the uncontrolled pandemic situation, cocoa commodities were also negatively affected.

Indonesia's cocoa production is facing the second deepest decline between 2019 and 2020. Indonesia experienced a decline in output of 20,000 tonnes year-on-year (YoY). The obtained production figure is 200,000 tons, which runs from month to month, mainly from October to September (Harsono, 2020). At the end of 2020, cocoa production in 2020 only reached 713.4 thousand metric tons, or decreased from the previous year, which reached 734.7 metric tons (Statista, 2021).

The COVID-19 pandemic has made the Indonesian cocoa industry still face big challenges, the main ones being cultivation methods and efforts to improve the quality of cocoa beans. These two challenges are related to the limited knowledge of farmers about cocoa beans and how to process them. In fact, these farmers dominate the number of managers of the largest cocoa plantations in Indonesia. Local farmers still use the traditional cocoa cultivation method. As a result, cocoa productivity is low in terms of both quantity and quality. The low cocoa production is also caused by the age of the cocoa beans, which are too old and the lack of nutrients provided (Annisa Bella Syana, 2020).

If processed, Indonesian cocoa beans have a high acidity level due to their low fat content, so they have an unfavorable effect on the taste of the compound. Although it is a main flag of Indonesian export commodity. Cocoa farming in Indonesia still has many obstacles as human resource capacity. This low capacity resulting in low post-harvest processing innovation. These limitations make Indonesian cocoa beans require further processing in order to improve their quality (Wardhany & Adzim, 2018: 287). In the global value chain scheme, the quality of the commodity affects the implications of export market share. Low value-added results in low competitiveness. In terms of importance, low competitiveness results in a low bargaining position.

In 2020, Indonesia run a specific policy strategy of resource-based industrialization, involving pre-export value addition to raw materials. This strategy was actually planned before the pandemic to make Indonesia a hub for the cocoa industry. However, the emergence of a pandemic presents its own challenges for the implementation of this policy. In the global production network theory, this policy can encouraging growth of a domestic cocoa processing sector, through the use of export restrictions. Industrial policies in the contemporary global economy are strongly influenced by Indonesia's position within globally-connected networks (Neilson et al., 2020).

During the COVID-19 pandemic, the prices of various commodities also experienced changes, including cocoa. These price changes occur due to changes in currency exchange rates. Currency exchange rates in the floating exchange rate system will change according to the economic strength of a country. That is, this value also reflects a country's economic competitiveness. In this case, we can see that Indonesia also has an interest in maintaining its overall economic competitiveness by maintaining the strength of its leading commodities, one of which is cocoa products.

The COVID-19 pandemic also affected the USD exchange rate against the Rupiah. The increase in the value of the USD against the Rupiah began on February 20, 2020. The rupiah exchange rate from below Rp. 14,000/USD weakened quite high until April 3, 2020, when it touched the figure of Rp. 16,500/USD (Abdoellah, 2021). On the other hand, the exchange rate also has an effect on international cocoa prices. International political and economic instability has an impact on international cocoa prices so that they experience a decline. International cocoa prices fell from USD 2716.21/ton in February 2020 to USD 2,386.47/ton in March 2020. On April 3, 2020, international cocoa prices fell again to USD 2,218.47/ton. International cocoa prices hit their lowest point on July 8 at USD 2,034.17/ton (Icco, 2021).

### 3.4. Indonesian Position in Global Cacao Chain in Pandemic

The continuous decline in global cocoa prices is certainly not what anyone wants. For a country with a high market share of cocoa, such as Indonesia, this decline has an impact on determining Indonesia's competitiveness. In this case, Indonesia's interest lies in the welfare of the people, including the resilience of the domestic economy. The fact that millions of smallholder farmers depend on cocoa for their economy has caused the decline in cocoa prices to also have an impact on their lives. When this continues, it is not impossible for farmers to leave this commodity and switch to other commodities or jobs. A dispersed value chain may imply different challenges and opportunities for farmers who are SMEs (Hernández & Pedersen, 2017).

As a precaution, the government tries to provide various stimulants and support, especially in terms of finance. One of the steps was carried out through a digital national strategy during the COVID-19 pandemic to increase the inclusiveness of the financial system and create economic equity. This strategy primarily targets cocoa farmers in rural areas (CSP, 2021). In addition, through the Cocoa Sustainability Partnership (CSP), there is also assistance for cocoa farmers affected by the COVID-19 pandemic, especially in the cocoa commodity development base area in South Sulawesi (CSP, 2021).

These various steps have also made farmers stick with cocoa commodities so that Indonesian cocoa commodities are still able to contribute to the GVC. When the global pandemic conditions began to be controlled, this resulted in a positive impact for Indonesia. At the end of the year, the international cocoa price increased again. In August, cocoa prices started to rise and reached a value above 2500 in November, which was USD 2,534.5 on November 20 (Icco, 2021).

Changes in price values that occur in international cocoa also have an impact on the cocoa industry in Indonesia. This is because the majority of Indonesian cocoa products are intended for the export market. This means that changes in the price of cocoa products in the global market also greatly affect the GDP that Indonesia gets from the cocoa industry sector. Exports of Indonesian cocoa products in 2020 experienced a decline in the GDP value of cocoa exports to USD 1,198,735, a decrease from the previous year when they reached USD 1,244,209 (Icco, 2021). This means that the global pandemic situation also affects the performance of the cocoa industry and its contribution to Indonesia's GDP.

The Indonesian cocoa industry has been widely integrated into the global value chain. Through intense international trade with various countries, Indonesia contributes to the global cocoa industry supply chain. Indonesia exports cocoa raw materials to the international market as one of the raw materials for the cocoa processing industry in other countries. In this case, international trade is accepted globally as a parameter to measure a country's economic performance. International trade contributes to gross domestic product (GDP), foreign exchange reserves, exchange rates, and inflation rates. This condition allows the state to maximize exports and minimize imports by relying on its competitive advantage (Priyono, 2021: 127).

For Indonesia, its cocoa industry has an attractive competitive advantage. Cocoa itself is the main raw material for the manufacture of chocolate and several luxury food products. However, in the global pandemic situation, the demand for chocolate and its derivative products has decreased. In fact, this is also experienced by Ivory Coast and Ghana as the first and second largest global

supplier countries for cocoa products (Statista, 2021). In Ghana, for example, it is estimated that there are 1 billion farmers who depend on the cocoa industry (Poku, 2021).

The COVID-19 pandemic has even resulted in a serious crisis for the cocoa sector in Ghana and Ivory Coast in the medium and long term. These two countries suffered significant losses due to the loss of the global cocoa supply market. Moreover, Ghana itself has experienced various problems in the cocoa industry sector due to structural problems before the pandemic took place. The pandemic condition has exacerbated the problems of the global cocoa industry (Nieuwsbericht, 2021). But, for those who have innovating products, the pandemic occurs can be metamorphose of industry that can survive in the global crisis. The main determinant of industrial success lies in the absence or presence of strategic industrial management related to setting long-term organizational goals and develop strength to face the crisis (Maulini et al., 2022: 341).

This condition is an opportunity for Indonesia to be able to increase its competitiveness and maintain the market, and even increase the export market share of cocoa commodities in the Global Value Chain scheme. When the production competitiveness of the two main cocoa exporting countries declines, and Indonesia is able to survive, this opens up new opportunities for Indonesia to increase its competitiveness. This at the same time demonstrates the ability of the Indonesian government to be resilient in dealing with crises and overcoming the adverse effects of its superior commodities. From the analysis of political interests, this can perceive Indonesia's power and improve Indonesia's bargaining position. In the end, Indonesia can balance the trade balance for countries importing cocoa products.

For Indonesia, the global pandemic turned out to have a better impact. Indonesia still has an active market share and continues to import Indonesian cocoa products. The main importers of Indonesian cocoa products are the United States, Malaysia, India, the Netherlands, China, Australia and several countries in Europe, and the position of these countries still hasn't changed during the pandemic (Trademap, 2021). Meanwhile, the United States and European countries dominate the global supply chain in the cocoa industry (Abdoellah, 2021: 3). This means that Indonesia plays a large role in the global supply chain for the cocoa industry. Indonesia contributes as much as 2.5% of global exports of cocoa products. However, this also means that global value chain disruptions can also limit the development of Indonesia's domestic cocoa industry sector. It is can be explained based on these previous models suggested in earlier works, that the internal factor play an important roles in green supply chain management (El Baz & Iddik, 2022).

The pandemic, which also hit Indonesia's cocoa importing countries, also had an impact on Indonesia's cocoa export performance. In the growth of the export value of Indonesian cocoa products in 2019-2021, it appears that its performance has decreased with several partners. With the United States, for example, there was a 20% decrease compared to the previous year. With Malaysia, the decline is up to 18% (Trademap, 2021) shows that Indonesia is losing potential value-added income.

The COVID-19 crisis poses a serious threat to the cocoa industry sector. This is due to ongoing market uncertainty that affects farmers' decisions to manage their cocoa plantations. If uncertainty persists, this may lead to a decrease in yield rates. In the long term, this condition also has the potential to affect chocolate processing companies. If this happens, Indonesia's position as one of the countries with a high global market share for cocoa commodities will also be threatened. This is what makes the Indonesian government strive to defend its interests through strengthening the cocoa industry sector.

In the global value chain, there is an increasingly close relationship between commodity prices and global liquidity cycles. This makes managing commodity-dependent macroeconomics more complex. Talking about sustainable supply chain management, there are some key point that matter the most such as up-to-date developments, trends and the current scenarios (sharma, V., Sachdeva, A., Singh, 2021). For the cocoa industry, the global macroeconomic also affects the financial channel. Like other agricultural products, Indonesia's cocoa exports tend to be inconsistent due to various factors. Research has identified several factors that affect the agriculture, processing,



production, and export of cocoa commodities. These factors are, for example, related to products, industry, government, or exports. This factor as a whole can affect the quantity and quality of Indonesian cocoa exports every year (Priyono, 2021: 127).

From a financial perspective, Indonesian cocoa industry companies also have the potential to be affected by the global pandemic. One example is one of the major cocoa producers in Indonesia, which is experiencing a financial crisis due to the pandemic, namely PT Wahana Interfood Nusantara. This PT issuer on the stock exchange experienced a decrease in sales by half due to public restrictions that occurred. This resulted in the company's revenue dropping 47% YoY to Rp 47.6 billion (USD 3.2 million) during the January-June 2020 period. One of the main factors causing the decline in revenue was the number of malls being closed so that tenants could not sell as usual (Alifiaberizky, 2021).

If you refer to the results of the FAO analysis, the COVID-19 pandemic has affected almost all aspects of people's lives, such as food and agriculture, including cocoa. This occurs due to restrictions on movement and restrictions on gathering, so that, in the end, it affects production. From the side of the cocoa farmers, they experience obstacles in the distribution of fertilizers and all production facilities. This leads to a decrease in production. Likewise, the transportation of produce to the market, processing in factories, and distribution of products to retail outlets are also affected.

Restrictions on human movement and the recommendation to work from home make many workers, especially in the non-formal sector, lose their income. This condition also resulted in the low purchasing power of the people. In fact, cocoa is not a staple food commodity, so it will not be placed in a priority position to be purchased. This is what makes the demand for chocolate and cocoa products decrease. This is also estimated to be the cause of the sharp decline in world cocoa prices in mid-2020. The COVID-19 pandemic has caused a decline in cocoa demand and consumption. In this case, policy implications needed to guarantee the degree of quality, standards and research deficiencies in firms and industry in cocoa beans (Tardzenyuy et al., 2020). Thus, even though demand decreases, the quality of cocoa offered can still be maintained or even increased. This has the potential to increase market opportunities for cocoa products again.

COVID-19 has hit all countries in the world. Big countries that are the world's biggest cocoa consumers, such as the US and countries in Europe, are also affected by the pandemic. In the food industry case, it is needed to unprecedented safety, technology & policy-measures to shine again and manage the supply chain operations (Mor, R., Srivastava, P., Jain, R., Varshney, S., Goyal, 2020). The presence of policymakers and agri-food marketers in the emerging economy are very important to maintain the whole value chain (Dung et al., 2020). It is a need to expand value chain resilience analysis to incorporate phases of system disruption like in the pandemic era (Linkov et al., 2020).

This pandemic also affects the global economy, currency exchange rates, and import flows for countries that are integrated with international trade. When viewed from the production and needs of the domestic industry, Indonesia itself is also a net importer of cocoa. In the last five years, imports of Indonesian cocoa beans have also continued to increase. In 2019, Indonesia's cocoa imports reached 235,000 tons. Cocoa imports are carried out to meet domestic cocoa needs with various variants. However, Indonesia has now developed a lot of cocoa processing industries so that it is able to produce cocoa liquor, cocoa cake, cocoa butter, and cocoa powder (Ministry of Industry, 2020). In fact, Indonesia continues to try to expand cocoa production in various regions, such as in Bali, and make cocoa its main commodity (Kemenkopukm, 2021).

In terms of policies and supportive regulatory frameworks, it is showed that Indonesia try to maintain its position in global cocoa chains. Increasing the opportunities of local firms (suppliers) or local individuals (workers) can be benefit for upgrading its position (De Marchi et al., 2020). Study examines that supply chain disruption has interrelated to orientation management's intention, digital infrastructure capability, innovation adoption, supply chain resilience, and operational performance (Kang & Stephens, 2022). The pandemic may disrupt the supply chain of Indonesian cocoa, but by taking advantage of the interrelationships of various other factors, Indonesia has the strength to deal with it.

However, at the end of the pandemic at the end of 2020, Indonesia managed to maintain and even increase exports of its cocoa products to the global market. If you add them up, Indonesia's total cocoa exports throughout 2020 will be higher than Indonesia's total cocoa exports in 2019. Indonesia's total cocoa exports in 2019 stood at 358,481 tons. This figure actually increased sharply in 2020, reaching 558,659 tons, or an increase of up to 55% (Trademap, 2021). Some export destination countries that experienced an increase in export volumes were the United States, China, Singapore, Germany, Estonia, the Netherlands, Australia, Canada, the Philippines, Mexico, Spain, Brazil, France, United Arab Emirates, Turkey, Egypt, South Africa, Thailand, and Pakistan (Trademap, 2021).

In the GVC scheme, this shows that Indonesia has succeeded in increasing its position in the global cocoa industry sector. In addition to increasing export market share, Indonesia is also increasing the value-added of products aimed at the export market. Cocoa is also one of the leading commodities in maintaining economic stability at the domestic level. It can be concluded that cocoa can be placed as a strategic product in the pandemic era to increase Indonesia's global value chain contribution.

#### 4. CONCLUSION

This research shows that Indonesia's interest in cocoa commodity GVC lies in its efforts to maintain overall economic stability, both at domestic and global levels. This interest place cocoa as a strategic product in the pandemic era and brought Indonesia's global value chain contribution bigger. It is expressed in the aspects of increasing the contribution of cocoa commodities to GDP, increasing the export market share of Indonesian cocoa commodities in the global market, as well as increasing the competitiveness of the Indonesian economy. This condition is a parameter to measure Indonesia's economic performance so that it shows Indonesia's ability to face the global crisis due to the pandemic. The Indonesian government's efforts to maintain the competitiveness of cocoa commodities in the global market have increased Indonesia's position in the global value chain for cocoa commodities in terms of quantity and quality. The pandemic is a tough challenge for the Indonesian government to go through in maintaining its economic stability. But in the end, Indonesia managed to use it as an opportunity to attract a wider market for cocoa by increasing the total volume of cocoa exports in 2020 and during the pandemic.

#### REFERENCES

- Abdoellah, S. (2021). Analisis Kinerja dan Prospek KOMODITAS KAKAO. *Analisis Dan Opini Perkebunan*, 2(01, Februari).
- Al-Nazer, N. (2022). A study on the relationship between supply chain integration and firm performance. *Uncertain Supply Chain Management*, 10(2), 295–302. <https://doi.org/10.5267/j.uscm.2022.2.003>
- Alifiaberizky. (2021). *Chocolate as Valentine's Symbol: How is the Cocoa Industry in Indonesia?* Bright Indonesia. <https://medium.com/with-bright-indonesia/chocolate-as-valentines-symbol-how-is-the-cocoa-industry-in-indonesia-b1eba4e8e915>
- Amador, J. dan S. C. (2014). *Global Value Chains Surveying Drivers and Measures* (WORKING PAPER SERIES NO 1739 / OCTOBER 2014).
- Annisa Bella Syana. (2020). *Industri Pengolahan Kakao Sumbang Ekspor US\$ 549 Juta*. Marketeers. <https://www.marketeers.com/industri-pengolahan-kakao-sumbang-ekspor-us-549-juta/>
- Baldwin, R. and Venables, A. J. (2013). Spiders and snakes: Offshoring and agglomeration in the global economy. *Journal of International Economics*, 2(90), 245–254.
- Barusman, A. R. P., & Habiburrahman, H. (2022). The role of supply chain management and competitive advantage on the performance of Indonesian SMEs. *Uncertain Supply Chain Management*, 10(2), 409–416. <https://doi.org/10.5267/j.uscm.2021.12.011>
- BPS. (2017). Statistik Kakao Indonesia. Badan Pusat Statistik. In *Katalog BPS*.
- Casella, B., Bolwijn, R., Moran, D., & Kanemoto, K. (2019). UNCTAD insights: Improving the analysis of global value chains: the UNCTAD-Eora Database. *Transnational Corporations*, 26(3), 115–142. <https://doi.org/10.18356/3aadof6a-en>
- Christopher Sausman, et al. (2015). From Value Chain Analysis to Global Value Chain Analysis: Fresh Orange Export Sector in Mediterranean Partner Countries. In *Sustainable Agricultural Development* (pp.

- 197-225). Springer International Publishing. [https://doi.org/10.1007/978-3-319-17813-4\\_8](https://doi.org/10.1007/978-3-319-17813-4_8)
- CSP. (2021). *Pembayaran Digital yang Bertanggung Jawab Bisa Memberi Nilai Tambah Bagi Petani Kakao Rakyat di Indonesia*. Cocoa Sustainability Partnership. <https://csp.or.id/id/read/news/179/pembayaran-digital-yang-bertanggung-jawab-bisa-memberi-nilai-tambah-bagi-petani-kakao-rakyat-di-indonesia>
- De Marchi, V., Di Maria, E., Golini, R., & Perri, A. (2020). Nurturing International Business research through Global Value Chains literature: A review and discussion of future research opportunities. *International Business Review*, 29(5), 101708. <https://doi.org/10.1016/j.ibusrev.2020.101708>
- Dung, T. Q., Bonney, L. B., Adhikari, R. P., & Miles, M. P. (2020). Entrepreneurial orientation, knowledge acquisition and collaborative performance in agri-food value-chains in emerging markets. *Supply Chain Management: An International Journal*, 25(5), 521-533. <https://doi.org/10.1108/SCM-09-2019-0327>
- Eko Nurhadi, et al. (2019). Jurnal Sosial Ekonomi dan Kebijakan Pertanian. *Jurnal Sosial Ekonomi Dan Kebijakan Pertanian*, 8(1), 51-61. <https://doi.org/http://doi.org/10.21107/agriekonomika.v8i1.5017>
- El Baz, J., & Iddik, S. (2022). Green supply chain management and organizational culture: a bibliometric analysis based on Scopus data (2001-2020). *International Journal of Organizational Analysis*, 30(1), 156-179. <https://doi.org/10.1108/IJOA-07-2020-2307>
- G. Gerrefi, J. H. dan T. S. (2005). The Governance of Global Value Chains. *Review of International Political Economy*, 78-104.
- Hainzer, K., Best, T., & Brown, P. H. (2019). Local value chain interventions: a systematic review. *Journal of Agribusiness in Developing and Emerging Economies*, 9(4), 369-390. <https://doi.org/10.1108/JADEE-11-2018-0153>
- Harsono, N. (2020). *Indonesian cocoa to see deep dip, second-worst globally: ICCO*. Jakarta Post. <https://www.thejakartapost.com/paper/2020/10/07/indonesian-cocoa-to-see-deep-dip-second-worst-globally-icco.html>
- Hassan, S. Z., Jajja, M. S. S., Asif, M., & Foster, G. (2021). Bringing more value to small farmers: a study of potato farmers in Pakistan. *Management Decision*, 59(4), 829-857. <https://doi.org/10.1108/MD-12-2018-1392>
- Hernández, V., & Pedersen, T. (2017). Global value chain configuration: A review and research agenda. *BRQ Business Research Quarterly*, 20(2), 137-150. <https://doi.org/10.1016/j.brq.2016.11.001>
- Icco. (2021). *ICCO Statistic*. <https://www.icco.org/statistics/>
- Industry, M. of. (2020). *Di Kala Pandemi, Industri Pengolahan Kakao Sumbang Ekspor USD 549 Juta*. Kemenperin Indonesia. <https://kemenperin.go.id/artikel/22046/Di-Kala-Pandemi,-Industri-Pengolahan-Kakao-Sumbang-Ekspor-USD-549-Juta>
- Inomata, S. (2017). *Analytical frameworks for global value chains: An overview*. Institute of Developing Economies (IDE-JETRO).
- Kang, M., & Stephens, A. R. (2022). Supply chain resilience and operational performance amid COVID-19 supply chain interruptions: Evidence from South Korean manufacturers. *Uncertain Supply Chain Management*, 10(2), 383-398. <https://doi.org/10.5267/j.uscm.2021.12.013>
- Kemenkopukm. (2021). *TETEN MASDUKI: BALI MAKSIMALKAN KAKAO SEBAGAI KOMODITAS UNGGULAN*. Kemenkopukm.
- Lindic, J., & da Silva, C. M. (2011). Value proposition as a catalyst for a customer focused innovation. *Management Decision*, 49(10), 1694-1708.
- Linkov, I., Carluccio, S., Pritchard, O., Ni Bhreasail, Á., Galaitis, S., Sarkis, J., & Keisler, J. M. (2020). The case for value chain resilience. *Management Research Review*, 43(12). <https://doi.org/10.1108/MRR-08-2019-0353>
- Maulini, Y., Maulina, E., Purnomo, M., & Rizal, M. (2022). Knowledge integration and entrepreneurial capabilities for sustainable competitive advantage through supply chain management. *Uncertain Supply Chain Management*, 10(2), 333-344. <https://doi.org/10.5267/j.uscm.2022.1.005>
- Mor, R., Srivastava, P., Jain, R., Varshney, S., Goyal, V. (2020). Managing Food Supply Chains Post COVID-19: A Perspective. *International Journal of Supply and Operations Management*, 7(3), 295-298. <https://doi.org/http://dx.doi.org/10.22034/IJSOM.2020.3.7>
- Nieuwsbericht. (2021). *COVID-19 effects on cocoa sectors in Ghana and Côte d'Ivoire*. Nieuwsbericht. <https://www.agroberichtenbuitenland.nl/actueel/nieuws/2021/02/25/covid-19-effects-on-cocoa-sectors-in-ghana-and-cote-d'ivoire>
- oecd. (2021). *Global value chains and trade*. Oecd. <https://www.oecd.org/trade/topics/global-value-chains-and-trade/>
- Poku, N. A. A.-& S. van H. (2021). Commodity exporter's vulnerabilities in times of COVID-19: the case of Ghana. *Canadian Journal of Development Studies / Revue Canadienne d'études Du Développement*, 42(1-2), 122-144. <https://doi.org/10.1080/02255189.2020.1857225>
- Priyono, I. K. and Y. L. X. (2021). Cocoa Exports in Indonesia: Influencing Factors. *Journal of Economics*,

- Commerce and Management United Kingdom, IX(6).*
- Raphael Kaplinsky, M. M. (2000). *A Handbook for Global Value Chain Research*. International Development Research Centre.
- Shandri, D. (2017). *KEBIJAKAN PEMERINTAH INDONESIA MENETAPKAN HARGA PATOKAN EKSPOR PRODUK KAKAO DARI INDONESIA KE TIONGKOK TAHUN 2012-2015*. 4(1), 1-23.
- sharma, V., Sachdeva, A., Singh, L. (2021). A Meta Analysis of Sustainable Supply Chain Management from Different Aspects. *International Journal of Supply and Operations Management*, 8(3), 289-313. <https://doi.org/10.22034/ijso.2021.3.4>
- Statista. (2021). *Cocoa production in Indonesia from 2012 to 2020*. Statista. <https://www.statista.com/statistics/706993/production-of-cocoa-in-indonesia/>
- Tardzenyuy, M. E., Jianguo, Z., Akyene, T., & Mbuwel, M. P. (2020). Improving cocoa beans value chain using a local convection dryer: A case study of Fako division Cameroon. *Scientific African*, 8, e00343. <https://doi.org/10.1016/j.sciaf.2020.e00343>
- Trademap. (2021). *List of products exported by Indonesia, Product: Cocoa and cocoa preparations*. [https://www.trademap.org/Product\\_SelCountry\\_TS.aspx?nvpm=1%7C360%7C%7C%7C18%7C%7C%7C4%7C1%7C1%7C2%7C2%7C1%7C1%7C1%7C1%7C1](https://www.trademap.org/Product_SelCountry_TS.aspx?nvpm=1%7C360%7C%7C%7C18%7C%7C%7C4%7C1%7C1%7C2%7C2%7C1%7C1%7C1%7C1%7C1)
- UNCTAD. (2020). The Covid-19 Shock to Developing Countries : Towards a “ whatever it takes ” programme for the two-thirds. *United Nations*, 13.
- Wardhany, M., & Adzim, F. (2018). Determinant of Cocoa Export in Indonesia. *Economics Development Analysis Journal*, 7(3), 286-293. <https://doi.org/10.15294/edaj.v7i3.25262>
- Widiartanti, F. (2016). Mebel Ukir Jepara dalam Menghadapi Kompetisi Perdagangan Global: Analisis Upgrading dalam Global Value Chain. *Jurnal Sospol*, 2(1), 15.
- Wijayati, H. (2022). Dampak Pandemi bagi Global Value Chain Industri Kakao Indonesia. *Jurakunman*, 15(1), 109-120.
- Yeoman, R., & Santos, M. M. (2019). *Global Value Chains, Reputation, and Social Cooperation* (pp. 69-91). <https://doi.org/10.1108/S1064-485720190000018004>