

IMPACTS OF THE COVID-19 PANDEMIC ON EXPORT COMMODITY TRADING

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Abstract

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This study examines the impact of COVID-19 on the export commodity sector in North Kalimantan province, Indonesia. The sector's heavy reliance on hydrocarbon, seafood, and agricultural products, and lack of diversification in the commodity market pose significant risks to its long-term sustainability and growth. Studies critically analysing the trading of this commodity and the pandemic's impacts on this sector remain lacking. Using a content analysis approach on data and information sourced from government reports and statistics, this qualitative-based study provides insight into the impacts of the COVID-19 pandemic and its resultant government intervention measures on North Kalimantan's export commodities. Findings show that export commodities handled by the province's ports decreased by 7 percent from 2019 to 2020, but in 2021, export values almost doubled compared to pre-COVID levels. The province's economic growth has been heavily dependent on hydrocarbon, seafood, and agricultural products before and during the pandemic. To create a more business-friendly environment and reverse the downward trend of export commodities, the study suggests diversifying the commodity market, enhancing human resource capacity, and forging stronger private-public partnerships. The study provides insight into the effects of the pandemic on North Kalimantan's export commodity sector, highlighting the need for long-term sustainability strategies.

Keywords: Cross-Border Trade, International Trade, Economic Growth, Socio-Economics, COVID-19 Pandemic

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1. INTRODUCTION

Indonesia is blessed with diverse and plentiful terrestrial and aquatic resources, ecosystems, and endemic species that stretch across its far-flung

islands and territorial waters (Dutton et al., 2009). Bountiful natural resources and fertile agricultural lands afford the country a continuous supply of export commodities, foods, and employment. Since immemorial times, the oceans and seas surrounding

this maritime nation have also served as a fertile fishing ground (Apridar, 2014). Over the last decade, Indonesia has been consistently ranked among the world's top ten producers of marine captured fisheries (Food and Agriculture Organization [FAO], 2010, 2020a). Besides seafood, hydrocarbon (e.g., petroleum, natural gas) and mineral resources (e.g., coal, bauxite, tin), along with agricultural and forestry products (e.g., coffee, tea, spices, timber, plywood), constitute major contributors to Indonesia's export revenues.

The spill-over effects from the recent outbreak of COVID-19 on global trade and economic sectors cannot be overstated. But unlike the continued downward trend of trade and export performance experienced at global and regional levels, Indonesia's international trade sector showed an encouraging sign of resilience since the last quarter of 2020, with optimistic anticipation for the aforementioned sector to recover as early as 2021. Even at the height of the pandemic, Indonesia's Central Statistics Agency (hereafter *Badan Pusat Statistik* — BPS) reported that the country's export value recorded US\$16.54 billion in December 2020, a 14.63% growth when compared to the same month in 2019 (Suroyo & Diela, 2021). In comparison to December 2019, the value of Indonesia's imports shows a negligible decline of 0.47% as it registered US\$14.44 billion in December 2020 (BPS, 2021a). Despite the country's exports of oil and gas being valued at US\$1.48 billion in December 2020, both were ranked among the worst export-performing commodities when matched to the same month in 2019 with a whopping 30.54% decline in terms of value (BPS, 2021a). Overall, Indonesia's export performance in 2020 was still commendable in light of the relatively dismal trade performance of other neighboring countries in the region.

A salient feature of government intervention measures to halt the outbreak of the COVID-19 pandemic is the adoption of stringent health quarantines and business shutdowns, which have been widely blamed for causing disruptions to trade and economic sectors across Indonesia's provinces, including North Kalimantan. Lockdowns and travel restrictions have interrupted the transportation of goods and cargo movements in and out of the hinterland areas to the coastal and adjacent cities in North Kalimantan. Urban transportation networks and warehousing operations were nearly paralyzed due to the temporary suspension of their operations. In Sebatik, one of the outer islands of Indonesia located in North Kalimantan, the closing of the Malaysian border reduced the demand for fish from that country (Darmawan & Yanudin, 2020). Subsequently, local fishermen in the province were forced to sell their catches as the cold storage facilities refused to accept their catches. The facilities were at full capacity due to the storage of unsold fish destined to be exported overseas (Darilaut, 2020).

The remainder of this paper is structured as follows. Section 2 provides a literature review, highlighting existing studies on the impact of COVID-19 on various areas and sectors, as well as export commodities and the need for a more specific analysis of the trading of these commodities in North Kalimantan province. Section 3 describes the research methodology, including the content analysis approach used to gather and analyse data

and information sourced from government reports and statistics. Section 4 presents the results, highlighting the impact of the pandemic on export commodities handled by the province's ports, government interventions to curb the epidemic outbreak and their implications on export commodity trading, and the heavy reliance on hydrocarbon, seafood, and agricultural products for economic growth. Section 5 offers discussions, interpreting the results, and drawing conclusions from the findings. Finally, Section 6 presents the conclusion, summarising the research findings and emphasising the need for long-term sustainability strategies, such as diversifying the commodity market, enhancing human resource capacity, and forging stronger private-public partnerships to reverse the downward trend of export commodities in North Kalimantan province.

2. LITERATURE REVIEW

Since the first confirmed case of COVID-19 was reported in late December 2019 in Wuhan, China, a significant body of scholarly and grey literature has made the coronavirus disease and its multiple impacts on different fronts their principal subject of investigation. Several empirical studies focus on government intervention policies and strategies designed to halt the spreading of the COVID-19 outbreak. Many of them concentrate on the types and effectiveness of individual countries' intervention measures. Health intervention measures, such as social distancing and good hygiene (e.g., wearing masks and washing hands), were widely promoted and practiced (Ganasegeran et al., 2020; Qian & Jiang, 2022). Restrictions on traveling and people's movement have been discovered to be effective in slowing the spread of the coronavirus (Tang, 2022). Moreover, heavy monetary fines and imprisonment have been widely used as a deterrence tool against those who flout social distancing policies and rules in public spheres, such as restaurants, public parks, and places of worship (Wai et al., 2021; Mat et al., 2020). In addition, the government-imposed shutdown of factories and stores during the early period of the COVID-19 pandemic has led to a sizeable number of the workforce being either retrenched or forced to have reduced wages (Gong, Zhang, et al., 2020).

Several Asian countries have taken drastic steps to restrain the transboundary spreading of COVID-19, even at the expense of their national revenue and domestic economic growth. Such steps included restricting air travel or even imposing an outright ban on commercial flights (Ling, 2021). In spite of the forecasted and actual significant drop in tourist arrivals ensuing from such policies, the respective governments of South Korea, Singapore, and Hong Kong were steadfast in imposing such measures to limit the risk of local and foreign travelers spreading the coronavirus into their country (Gwee et al., 2021).

The outbreak of COVID-19 and the resultant lockdown were intended to reduce the infection rate of this highly contagious coronavirus but instead, international trade has also been negatively affected. Several studies forecasted that global trade would experience a severe downward trend arising from the disruptions in supply and demand inflicted

by the pandemic (Vidya & Prabheesh, 2020; Barlow et al., 2021). The Organisation for Economic Co-operation and Development (OECD, 2020) predicted that the growth rate of the global economy is to decline from 2.9% to 2.4% in 2020 due to the coronavirus pandemic. Meanwhile, UNTAD (2020, as cited in Mishra, 2020) reveals that the global economy could lose up to US\$2 trillion by the end of 2020 due to the pandemic.

Several studies have confirmed the negative impacts of the COVID-19 outbreak on trading activities and Indonesia is no exception. The country's export and foreign exchange earnings registered a decline worldwide due to multiple factors, ranging from financial market turmoil, and falling commodity prices, to unfavourable consumer sentiment (Pati, 2020). Moreover, the pandemic has exposed the detrimental effects of one State's heavy reliance on certain countries for their export markets. Before the outbreak of COVID-19, China was the largest trading partner and foreign direct investments (FDIs) for Indonesia (Astuti & Mahardhika, 2020; Pamungkas & Hussin, 2022). The imposition of nationwide lockdown and travelling restrictions in China did successfully curtail the widespread spread of the coronavirus. These measures, nevertheless, also led to the shutdown of the country's ports, logistical and storage facilities, as well as the suspension of international flights and closing of national borders. These actions inevitably caused negative multiplier effects on other countries. For instance, Indonesia's exports and tourist arrivals from China suffered a drastic decline (Rohmi et al., 2021).

At the national level, the COVID-19 crisis has also profoundly affected the productivity of manufacturing sectors and the overall trade activities of different economies. Many of the studies investigated the changing export and import patterns of major trading nations before and during the pandemic, with the descriptive analysis concentrating on their value and volume. There is a consensus that the pandemic has been responsible for causing export and import revenue decline in different economies (Rangkuty et al., 2021; Gupta, 2020). Based on an analysis of monthly export data, Hidalgo (2020) claimed that the two largest export economies in the world, namely the United States and Germany, encountered a continuing contraction in their export volume in April 2020 and were unable to recover as quickly as China. China's exports did temporarily experience a downward trend in 2020 but rose quickly and came back to normal within the same year (Gong, Hassink, et al., 2020). It can be concluded that the COVID-19 pandemic has severely disrupted the international trade of individual countries with varying effects.

Research on COVID-19 and its effects on agriculture and the food supply chain has been extensive. A striking feature is the number of works on the disruption of the food supply chain worldwide caused by the ongoing COVID-19 pandemic. The pandemic has caused interruption to such chain where the biggest issue encountered by agriculture producers being limited to the accessibility of fertilizer and pesticides from suppliers and the continued movement of their products from agricultural fields to buyers (Barman et al., 2021). Both farmers and dairy farmers in many regions

were left with no choice but to destroy their unsold and often perishable agricultural products. Such action was necessary due to prolonged travel restrictions, the closing of processing factories, the labour shortage, and logistical difficulties (FAO, 2020b).

The impacts of COVID-19 on the demand and supply of seafood and aquaculture products cannot be discounted. The movement restriction policy has inevitably caused disruptions in the supply chain which, in turn, affect the sustainability of seafood sales. Unsold production escalated the levels of unsold live fish stocks, which subsequently triggered higher costs for feeding and this will eventually result in an increasing fish mortality rate (Pititto et al., 2021). In addition, the FAO (2020b) disclosed how the COVID-19 pandemic and travel restriction measures have adversely affected seafood sales. The demand for packed and frozen products recorded a surging trend starting from the second quarter of 2020. Demand for high-value perishable fresh fish and other aquatic food experienced a sharp decline due to the closure of restaurants and hotels. According to Villasante et al. (2021), the movement of people and goods caused abrupt shifts in the demand and supply of seafood, leading to disruptions in sales. For example, the Galician aquaculture sector in Italy experienced a significant decrease in production, imports, and exports of seafood products, including fresh, live, or frozen.

An in-depth analysis of the effect of the COVID-19 pandemic on trade and economic sectors in North Kalimantan, as a major subject of study, has not attracted the scholarly attention that it deserved, albeit it ranked among the largest trading provinces on the island of Borneo. A discernible feature of relevant studies on the impacts of the COVID-19 pandemic on Indonesia focussed on the country's overall economic performance and international trade activities (Susilawati et al., 2020; Astuti & Mahardhika, 2020; Olivia et al., 2020). Substantial numbers of published works present a general analysis of intervention measures adopted (or rather lack of it) by Indonesia's central government in combating the spread of COVID-19 (Andriani, 2020; Arumsari et al., 2021). Inevitable impacts triggered by lockdown and travel restriction policies on the trade and economic sector, particularly at the provincial or district levels have also become the main subject of investigation (Muhyiddin, 2020; Rosado et al., 2022; Rapitasari & Dwiarta, 2022). Other works focus on the utility of the central and provincial governments in promoting and facilitating the recovery and growth of trade and economic activities amidst the ongoing pandemic (Pati, 2020). The latest study by Didi et al. (2021) does explore the impacts of COVID-19 on the general economic performance and trends in North Kalimantan. However, a comprehensive descriptive analysis of the impacts of the pandemic and government restrictive movement measures specifically on the trading of export commodities in the province is distinctly missing.

Hence, several research questions need to be answered:

RQ1: What are the effects of the COVID-19 pandemic on the trading of export commodities in North Kalimantan province?

RQ2: How did government reactions to the COVID-19 pandemic impact export commodity trading in North Kalimantan province?

RQ3: How has the COVID-19 pandemic and associated government intervention measures disrupted trade activities and socio-economic well-being in North Kalimantan province?

Against this backdrop, this study aims to fill the research gap by providing insights into the effects of the COVID-19 pandemic on the trading of export commodities in North Kalimantan province. This study will also examine the impact of government reactions to curb the epidemic outbreak on export commodity trading. The paper argues that the COVID-19 pandemic and its associated government intervention measures, aimed at curbing the transmission of the coronavirus, have caused unprecedented disruptions in trade activities of export commodities and the socio-economic well-being of the people in North Kalimantan province.

The significance of the study can be divided into three folds. *Firstly*, this study provides valuable insights into the impact of the COVID-19 pandemic on the key export sector of North Kalimantan, particularly on hydrocarbon commodities, seafood trade, and agricultural products. It highlights the vulnerability of the province's export sector to global disruptions, particularly in terms of transportation and logistics.

Secondly, in terms of the application of research methodology, the study adopts a quantitative approach to analyze statistical data on export volumes and value of different commodities, as well as a qualitative approach to gather information on the impacts of the pandemic on key stakeholders such as government officials, logistical and warehouse companies, and seafood producers. This combination of methodologies allows for a more comprehensive understanding of the situation.

Lastly, the study has practical implications for various stakeholders in North Kalimantan, including the provincial government, export companies, and local communities. It highlights the need for diversification of export markets and the development of alternative transportation and logistics systems to mitigate the impact of future disruptions. It also emphasizes the importance of supporting local communities and industries that have been severely affected by the pandemic, particularly in terms of income and revenue loss.

3. RESEARCH METHODOLOGY

This study uses a mixed approach, and its analysis is explorative and explanatory. It adopts a content analysis approach by using selected primary and secondary data to frame a set of assumptions in explaining the investigated phenomena. Based on systematic content analysis and literature review, this study integrates and analyses a data set extracted from multiple document sources to determine the type and extent of the implications of the COVID-19 pandemic on North Kalimantan's key export commodities. By appraising this data, the types of commodities that had been affected by the COVID-19 impacts can be identified.

This study analysed a compilation of primary data, including statistical data and information, prepared and issued by selected central and

provincial government agencies in Indonesia. Examples of primary data sources derived from government annual and monthly reports issued by agencies such as the BPS, North Kalimantan Central Bureau of Statistics, Ministry of Trade of the Republic of Indonesia, Tarakan Fish Quarantine and Quality Control Centre (*Balai Karantina Ikan dan Pengendalian Mutu* – BKIPM), and Ministry of Transportation of the Republic of Indonesia. The main reference sources for determining the export status and trends of the province's seafood products were obtained by analysing the statistical data compiled and furnished by the BKIPM. The Centre afforded several unpublished datasets on seafood exports to Malaysia from 18 March 2020 to 4 April 2020.

The secondary data are mostly acquired from archival research materials sourced from both printed and online forms, including journals, books, book chapters, online news, local newspapers, and trusted government and private websites. To ensure data validity and reliability, both primary and secondary data are traced from credible and trusted sources that can be traced to published materials sought from the relevant government online portals, online database platforms, and reputable search engines such as Google Scholar and Scopus.

In this study, the researchers used some data primary and secondary which have been elaborated on the North Kalimantan province, Indonesia. It was on COVID-19 and its effects on agriculture and the food supply chain. So, in this study, the statistical analysis of export-import in the North Kalimantan province, Indonesia, has been discussed. It is noteworthy that this study does not adopt a quantitative research methodology such as a survey research design that could be used as an alternative to the mixed approach used in the study. This design involves the collection of data from a sample of individuals or organizations using a structured questionnaire or interview. The respondents for the survey could be from commodity producers, traders, the business community, and port and logistic operators in the North Kalimantan province to gather information on the impact of the COVID-19 pandemic on the export commodity sector. The survey data could be analyzed using statistical techniques, such as descriptive statistics, regression analysis, or factor analysis to identify patterns and relationships in the data. This would provide a quantitative assessment of the impact of the pandemic on the export commodity sector in the North Kalimantan province, which could complement the qualitative insights obtained from the mixed approach used in this study.

4. RESULTS

Cross-border and export commodity trading remains one of the mainstays for socio-economic growth, particularly along the coastal corridors of the North Kalimantan-Sabah border. It is widely acknowledged that both informal and formal cross-trade-related activities have become a way of life for many local people, farmers, and business communities. Barter trading, in particular, has been the main economic activity in the region for decades, mostly involving the trading of agricultural and food products (Rudiatin, 2017; Awang et al., 2013). Given the poor

connectivity of road, air, and railway in the province's interior areas, cross-border trading activities are predominantly concentrated around the provincial coastal towns bordering the Malaysian state of Sabah (e.g., Tarakan, Tanjung Selor, and Sebatik).

Mineral fuels, vegetable fats and oils, fish and crustaceans, and wood and wood articles dominated the types of products traded across the North Kalimantan–Sabah border. Meanwhile, hydrocarbon and mineral resources (e.g., petroleum, natural gas, tin, coal), fisheries and aquaculture, and timber-related products (e.g., plywood, furniture, and paper pulp) extracted or produced in North Kalimantan,

are primarily intended for overseas market (Kellen, 2019).

Among the principal export commodities for North Kalimantan, mineral fuels, such as crude oil, natural gas, and coal, together with petroleum-refined hydrocarbon products (e.g., fuel oil, diesel, and gasoline), bituminous substances, and mineral wax constituted among the largest contributors to the export revenue of North Kalimantan. The registered total export value of these commodities was US\$745,616,769.02 in 2020. Table 1 and Table 2 show a breakdown of the value and volume of export commodities from North Kalimantan.

Table 1. Export *volume* of commodity originated from North Kalimantan, 2019–2021

Type of commodity	Volume (Tonne)		
	2019	2020	2021
Mineral fuels, mineral oils, and their refined products, bituminous substances	20,733,905.16	18,492,213.21	20,700,000.00
Fish and crustaceans, molluscs, and other aquatic invertebrates	16,790.09	16,898.92	21,017.42
Timber and articles of wood, wood charcoal	89,956.05	76,212.87	72,439.51
Animal or vegetable fats and oils and their dissociation products, edible processed fat	97,457.22	58,341.62	6,461.64
Tobacco and tobacco substitutes manufactured	1,135.31	4,023.97	22,461.97
Seeds and fruit contain oil; various grains, seeds, and fruit, industrial plants or medicinal plants, and hay	35,008.73	22,852.89	17,172.86
Preparations of meat, fish, crustaceans, molluscs or other aquatic invertebrates	360.74	230.73	6,004.44
Preparations of cereals, flour, starch or milk, cake industry products	298.79	419.06	479.94
Residues and residues from the food industry, processed pet food	8,963.15	1,220.73	3,019.00
A variety of edible preparations	163.81	197.81	1,042.85
Others	3,988.36	15,980.67	1,962.18
Total	20,974,027.41	18,688,592.49	20,900,000.00

Source: BPS (2021a).

Table 2. Export *value* of commodity originated from North Kalimantan, 2019–2021

Type of commodity	FOB value (USD)		
	2019	2020	2021
Mineral fuels, mineral oils, and their refined products, bituminous substances	885,271,122.09	745,616,825.22	1,460,000,000.00
Fish and crustaceans, molluscs and other aquatic invertebrates	114,237,291.67	108,714,761.62	126,000,000.00
Timber and articles of wood, wood charcoal	78,492,633.71	62,865,759.40	76,759,265.00
Animal or vegetable fats and oils and their dissociation products, edible processed fat	42,228,266.82	38,837,687.48	61,282,846.00
Tobacco and tobacco substitutes manufactured	11,015,186.70	36,581,523.00	16,423,532.00
Seeds and fruit contain oil, various grains, seeds, and fruit, industrial plants or medicinal plants, and hay	53,964,007.91	20,945,441.61	15,265,514.00
Preparations of meat, fish, crustaceans, molluscs, or other aquatic invertebrates	3,144,573.58	1,863,049.91	4,610,042.00
Preparations of cereals, flour, starch, or milk, cake industry products	454,180.53	942,224.07	4,101,521.00
Residues and residues from the food industry, processed pet food	889,463.65	673,551.76	1,775,699.00
A variety of edible preparations	252,600.15	327,323.32	511,329.90
Others	13,96183.57	1024,415.17	1,870,537.00
Total	1,192,188,770.22	1,018,392,562.56	1,760,000,000.00

Source: BPS (2021a).

The North Kalimantan province is also traditionally known as a major supplier of fish, shrimps, crabs, and other aquatic products, particularly to Malaysia. Nunukan, for instance, is a major fish and seafood-producing district in the province, offering an array of commercially important fish species destined for Malaysia's market (Asrin & Sobirin, 2020). Examples of high-value aquatic species include black and white pomfret, red snapper, shrimps, and crabs. One of the key aquaculture commodities produced in this province is arguably the black tiger shrimp, of which Japan is the biggest importer. The data released by Bank Indonesia for the North Kalimantan office shows the composition and percentage of the market

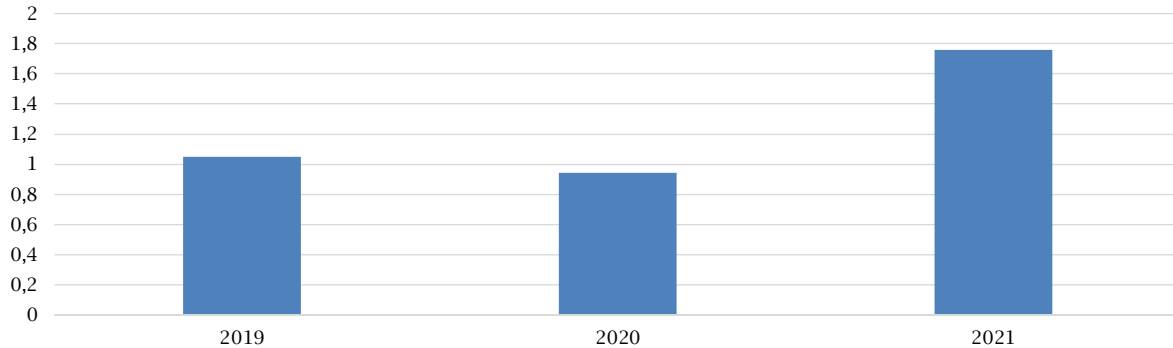
share of shrimps imported from North Kalimantan consisted of Japan (75%), the USA (14%), Taiwan (6%), and the rest were exported to China and Hong Kong (Mufid & Munisa, 2020).

Looking at the export amount of different commodities as stated in Table 2, the COVID-19 pandemic has affected the trading of export commodities in North Kalimantan. Such impacts were visible in the context of its monetary value. The percentage of export commodities handled by North Kalimantan's ports recorded a 7% decline from US\$1.050 billion in 2019 to US\$945 million in 2020. However, it returned to the peak point in the following year to US\$ 1.76 billion with an 11.76% increase (Figure 1). Interestingly, while the volumes

of export commodities in 2019 and 2021 share similar accounts (Figure 2), the values in 2021 are almost double 2019's. These are presumably due to the increase in the global prices of commodities,

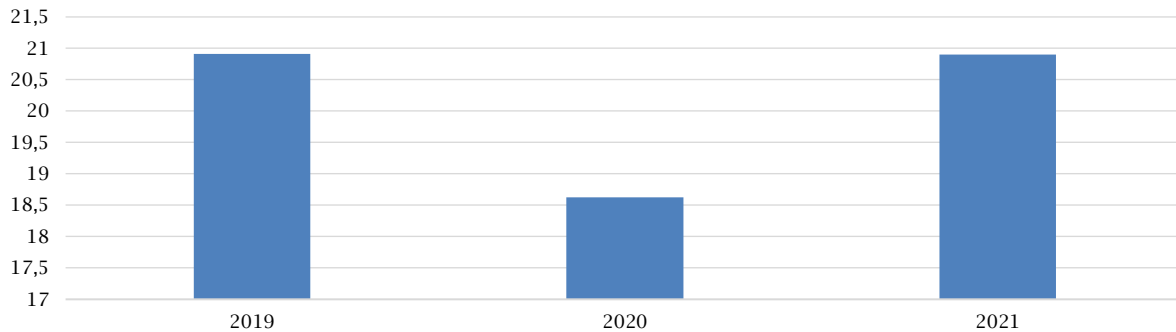
mainly mineral fuels and agricultural products, which attract more demand from overseas markets regardless of the COVID-19 pandemic.

Figure 1. Values of export commodities in North Kalimantan's port (US\$, in billion)



Source: BPS (2020c, 2021b).

Figure 2. Volumes of export commodities in North Kalimantan's port (tons, in billion)



Source: BPS (2020c, 2021b).

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In terms of the top overseas markets for North Kalimantan commodity products in 2019, the available data as stated in BPS (2020c) ranked India the first with US\$221.39 million of the total export values. This was followed by the Republic of Korea with US\$176.45 million. In 2020, however, the Republic of Korea replaced India as the biggest export destination for the province's export commodities, with the total export's values reaching up to US\$211.48 million, followed by China and India with US\$195.52 million and US\$179.12 million, respectively. In 2021, China was the main destination

of the province's export commodities, with the total export values amounted to nearly US\$811.83 million. The Philippines and Malaysia occupied second and the third place with US\$212.42 million and US\$174.81 million export values, respectively. Apart from discussing the overall export performance of North Kalimantan, the following paragraphs will give breakdown of the specific commodities that were severely affected by COVID-19 (BPS, 2020c, 2021b, 2022).

5. DISCUSSION

Even before the outbreak of COVID-19, the provincial government in North Kalimantan was aware that securing export growth was imperative for local socio-economic well-being. The province's export sector is an essential platform in facilitating market diversification for indigenous natural and agricultural products while securing sustained employment opportunities for local people. The revenues generated from the export earnings are critical for poverty alleviation, income disparity reduction, and infrastructure building in the province.

The impacts ensuing from the outbreak of COVID-19 had affected the export of these hydrocarbon commodities as witnessed by a sharp decline in earnings and volume in tandem with

the flagging demand for these commodities. There was a visible decrease in the export volume for these commodities, recording a 10.81% decline from 20,733,905.13 tons in 2019 to 18,492,213.20 tons in 2020 (BPS, 2021a). A sharp drop in demand for final products or services generally correlates with an acute decline in demand for raw materials. This notion evidently fits with the trading pattern of hydrocarbon commodities exported from North Kalimantan during the pandemic.

Travelling restrictions, and cancellation of commercial flights, compounded by a long period of border closures, not only hampered the growth of the tourism and hotel industry worldwide but also caused the demand for energy, especially fuels, to fall to levels not seen in decades. This is manifested in the price of hydrocarbon commodities. Oil, in particular, led to the price decline, falling 52% from December 2019 to May 2020, followed by natural gas and coal at 36% and 20%, respectively. It is noteworthy, a similar trend can also be seen in non-hydrocarbon commodities during the same period.

Besides oil and gas, coal is one of the province's major hydrocarbon commodities that suffered the worst export slump during the COVID-19 pandemic period. For example, the decline in the export value of the coal mined in the Nunukan Regency was marked by the lack of transport ships entering the regency's areas from April 2020 to August 2020. In March 2020, there were 48,800 tons, in April 2020, it decreased to 56,580 tons, in May 2020 and June 2020, there were no deliveries and in July 2020, 60,500 tons (Aminah, 2020). This situation deprived North Kalimantan of generating the much-needed revenue given that coal is ranked highest in terms of value and volume of the province's export commodity.

Similar to hydrocarbon resources, the growth of the seafood trade both in terms of value and volume in North Kalimantan was badly affected by the pandemic. The export volume of fisheries commodities recorded an almost 50% slump, while the prices of seafood fell in the range of 30-40% (Ariyanto, 2020). Malaysia and Hong Kong imported up to 720,000 live crabs and lobsters from the province in 2019. The outbreak of COVID-19 contributed to a drastic decline in terms of export volume in 2020 as only 260,000 of the same crustacean products were sent to these countries (Sahida & Lamunsri, 2020). Increased logistical and transportation costs were to be blamed for this sudden fall in seafood export, compounded by the shifting of consumer demands from overseas. Within such a short time, finding an alternative market for these commodities understandably turned out to be a much more difficult and complex task. As the spreading of the COVID-19 outbreaks was unexpected and swift, government officials, logistical and warehouse companies, and seafood producers in the province were not readily anticipating the loss of the export market for these lucrative aquatic commodities.

Other than fisheries and aquaculture belonged to key commodities which are severely affected by COVID-19, the province of North Kalimantan is also famously known across Indonesia as a significant contributor to the country's export of agricultural products. Palm oil, cocoa, coconut, and coffee beans

are among the key export commodities occupying vast agricultural land areas across the province. Palm oil itself constitutes more than 32,899.3 hectares, making it the biggest plantation area in the province (BPS, 2020b).

The intensification of the COVID-19 pandemic poses a serious threat to the provincial economy and the welfare of many local populations in North Kalimantan. Loss of income and revenue among those affected by the pandemic has substantially undermined the socio-economic well-being of the people. The pandemic and its resultant health intervention measures severely disrupted cross-border trading activities along the border of Malaysia-North Kalimantan. Nearly all these activities had to be suspended in the wake of the nationwide enforcement of the restrictive movement order (MCO) adopted by Malaysia, leading to the restriction of trade and movement and the closure of the land border (Lee, 2020). This dire situation had been made worse by the absence of an alternative export market for key commodities produced in North Kalimantan. As previously mentioned, this is illustrated in the trading of its lucrative shrimp and seafood export which has greatly relied on overseas markets, notably Japan and Malaysia.

Those affected by the movement restrictions and border closure were forced to find alternative employment or market for their merchandise and goods. This problem is particularly acute among the Indonesian local traders and business communities in Sebatik Island which borders the Sabah district of Tawau, Malaysia. Most of them suffered tremendous losses of income (Ramlan & Lamunsari, 2020), while depriving their access to basic needs that are generally subsidized by the Malaysian government, such as rice, cooking oil, flour, onions, gas, and sugar. The local residents living along the border have been heavily dependent on such goods even before the outbreak of COVID-19. It is a norm for them to cross the Malaysian border illegally to acquire these subsidized goods (Jatmika et al., 2021). The Indonesian Consulate in Tawau revealed that many Indonesian citizens managed to sneak across the Malaysian border and smuggled Malaysia's subsidized goods using illegal access routes in Sei Pancang, Sei Nyamuk, Sei Taiwan, Tinabasan dan Sebaung (Radar Kaltara, 2020).

This paper proposes several solutions for mitigating the adverse impacts of the COVID-19 pandemic on the trading of export commodities in North Kalimantan province.

Firstly, diversification of the market for export commodities should be considered and prioritized by the relevant government authorities. Finding alternative markets for these commodities is the best possible way to attain economic recovery instead of heavily relying on overseas markets. The strategy is warranted given that Indonesia has a huge population of nearly 273 million people, which is sufficient enough to meet the domestic market for certain commodities (e.g., seafood and palm oil-related products).

The second alternative solution for alleviating the disruptive effect of COVID-19 on the trading of export commodities is to forge a stronger private-public partnership that should be pursued by both Indonesia's central and provincial governments

despite the ongoing COVID-19 endemic status. Consultation and dialogue between the government and private stakeholders should be deepened and expanded, creating a more practical and conducive business-friendly environment. They also provide a useful platform for business communities to relay and share their concerns and grouses to the government. They are concerned about the declining trade revenue due to lower market demand, stringent trade procedures, and disruption of logistical operations from anti-COVID government intervention measures. Input from these affected stakeholders would enable the central and provincial governments to formulate the best possible COVID-19 response plan and strategy. Such an approach could promote and enhance the economic growth generated from export commodities in North Kalimantan without compromising public health.

Lastly, enhancing the individual and teamwork capacity of provincial government personnel should be a policy priority in North Kalimantan. Leadership and skill set enhanced training activities are a prerequisite condition to transform them into better and competent leaders, administrators, and negotiators. Communication, adaptive thinking, and analytical skills are all critical and useful for conducting effective negotiation and situational analysis, a skill set that will be beneficial in defending and promoting the province's trade and economic interests when needed. Furthermore, the level of English proficiency among many provincial government officers remains far from satisfactory, a language that is universally used in international trade sectors and has yet to be mastered by them.

The spreading of COVID-19 and its adverse consequences in a rapid and unexpected manner have exposed local officers' inability to foresee and promptly react to the volatility of regional and global prices and market demands for the province's export commodities. This, in turn, justifies the importance of government officers being more competent in performing their assigned tasks. As argued by Rizaldy et al. (2021), "forecasts and their associated uncertainty can and should be an integral part of the decision-making process" (p. 52). A case in point is the failure of the relevant government agencies to immediately identify and seek alternative markets for seafood commodities. Their readiness and willingness to swiftly respond or act in any gradual or sudden changes in this current interdependent global business and trade environment demand that they possess certain skills and traits (e.g., flexibility, temperament, and intelligence) to perform their assigned tasks effectively.

6. CONCLUSION

This paper deals with the assessments of the impact of the COVID-19 pandemic on the trading of export commodities and its ensuing socio-economic conditions affecting North Kalimantan. In some ways, this study contributes to the enrichment of the existing body of literature on the impacts of this pandemic on the trading activities of the province's export commodities. This is attained by providing a comprehensive review of primary government documents and secondary data concerning

the COVID-19 pandemic and its impacts on North Kalimantan. The consequences of COVID-19 have had a domino effect not only on Indonesia but also on its provinces, including North Kalimantan. Much of the export value and volume of commercial commodities from North Kalimantan, ranging from seafood products, and hydrocarbon resources (e.g., coal, crude oil, and natural gas) to agricultural products (e.g., palm oil) recorded a sizeable decline within a short span of time. The weakening of the province's exports and imports was further compounded by the concurrent decline of the economy suffered by the province's key trading partners such as Malaysia and China.

The implementation of movement restriction measures and lockdown policies in North Kalimantan has been blamed for severely disrupting the trading of export commodities, albeit temporarily. These disruptions have led to revenue loss, declining exports, reduced production, labor shortage, and loss of employment opportunities. The pandemic has jeopardized the province's short-term economic growth and undermined sustained employment opportunities, entailing increased income disparity among the local populations. A growing number of the rural population has been forced to live below the national poverty line. Social inequality and economic vulnerability exacerbated by the poverty trap were more prevalent during the COVID-19 pandemic. It can be argued that inequality and disparity in the distribution of income and wealth between rural and city populations have arguably become more prevalent since the outbreak of the coronavirus.

Lessons learned from the ongoing outbreak of COVID-19 point to several recommended measures for the provincial government in North Kalimantan to undertake to maintain and restore trade activities and growth at least akin to the pre-pandemic period. The domestic and export markets for its hydrocarbon and agricultural-based commodities should be diversified, and the policy of forging a stronger private-public partnership should be pursued by both central and provincial governments to create a more practical and conducive business-friendly environment that would expedite economic recovery without compromising public health.

This paper proposes several solutions to mitigate the adverse impacts of the COVID-19 pandemic on the trading of export commodities in North Kalimantan Province. These include diversifying the market for export commodities, forging a stronger private-public partnership, and enhancing the individual and teamwork capacity of provincial government personnel. Diversification of the market for export commodities is the best way to attain economic recovery while forging a stronger private-public partnership creates a more practical and conducive business-friendly environment.

In sum, the COVID-19 pandemic and the subsequent government intervention measures to prevent the spreading of the coronavirus have unprecedentedly disrupted the trading of export commodities, as well as the social-economic well-being of the people living in North Kalimantan province.

COVID-19 has significantly impacted the export of hydrocarbon commodities, leading to a decline in earnings and volume. Travel restrictions and border

closures have hampered the tourism and hotel industry, causing a decline in energy demand. Coal, a major hydrocarbon in North Kalimantan, experienced the worst export slump, with a 3% contraction since the pandemic. This decline was attributed to the lack of transport ships entering the region's areas from April 2020 to August 2020. Indonesia should prioritize diversification of export commodities markets to achieve economic recovery. With a large population of 273 million, Indonesia

can meet domestic markets for certain commodities. To alleviate COVID-19's impact on export trading, Indonesia's central and provincial governments should forge stronger private-public partnerships, deepen consultation, and dialogue, and enhance the individual and teamwork capacity of provincial government personnel. This will enable effective negotiation and situational analysis, defending and promoting the province's trade and economic interests.

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