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IMPACT OF COVID-19 ON MALAYSIAN DRY BULK BUSINESS

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Abstract: During the COVID-19 pandemic, international cross-border restrictions were implemented worldwide. In Malaysia, it was anticipated that the Movement Control Order (MCO) would negatively impact the maritime business as badly as it would on most other economic activities in the country. However, the lockdown in Malaysia, which aimed to “restrict movement”, “reduce contact” and further “isolate the virus”, did not impact maritime business as much as other industries. In fact, the maritime waterways remained the main artery to transport essential goods nationwide during the pandemic. This paper analyses the impact of the pandemic on the maritime business in Malaysia by studying the commercial and technical aspects. Primarily, the paper focuses on dry bulk trade, container business, port infrastructure, and parties involved in the maritime supply chains. It finds that the impact of the pandemic was minimal, and certainly not as prominent as anticipated; in fact, the Baltic Dry index touched a new high during this period. This paper uses secondary data and draws on the analyses of the Baltic Dry Index, Platts Report by S&P, and Review of Maritime Transport by the United Nations Conference on Trade and Development. The paper is divided into three sections: The changes in selected maritime sectors before and during the pandemic, the factors affecting dry bulk market growth in Malaysia, and the lessons learnt and corresponding recommendations to improve Malaysian maritime business post-pandemic.

Keywords: Dry bulk trade, maritime business, port infrastructure, COVID-19 impact and movement control order.

Introduction

When the Defence White Paper (DWP) was introduced in 2019, policymakers did not view Malaysia as a maritime nation purely in the strategic and defence context, but also in maritime economy settings. Located in the middle of Southeast Asia (SEA) with the South China Sea and the Pacific Ocean on one side, and the Indian Ocean and Straits of Malacca on the other (Defence White Paper, 2019, pg. 4), Malaysia is a hub that bridges the east and west sea lanes of communication (SLOC). During the 15th century, Malacca was known as the “Emporium of the East” that commanded the major sea route between India and China (Defence White Paper, 2019, pg. 17). The Straits of Malacca provides leverage to the nation as a major international trading and

shipping route that is still prominent today. The globalisation of the world economy has also positively positioned Malaysia in terms of port connectivity and the shipping industry — Port Klang and Port of Tanjung Pelepas, for example, are ranked as the 12th and 19th busiest container ports in the world.

This leverage poses both opportunities and challenges. In terms of opportunity, Malaysia’s geographical proximity to main seaports in the Far East contributes significantly to the country’s global maritime economy and businesses, which are main drivers of the country’s development. The contribution of maritime trade to the Malaysian economy can be ascertained from the fact that the industry contributes about 40% of the country’s gross domestic product (GDP). Indeed, more than 90%

of Malaysia's exports are transported by sea. One serious challenge to Malaysia's position as a maritime nation is the business environment and operations during the COVID-19 pandemic that began at the end of 2019. Due to its infectious nature, the disease has led to international cross-border restrictions. Malaysia imposed its own restrictions in the form of the Movement Control Order (MCO), which aimed to "restrict movement", "reduce contact" and further "isolate the virus".

This paper observed that the international cross-border restrictions had effectively restricted activities on land and air, but not at sea. Port activities, for instance, remained the main artery for delivery of medical equipment and essential goods worldwide during the pandemic. Whilst all other industries like transportation, tourism, hospitality and education suffered disruptions, Asia's dry bulk shipping market actually experienced growth, even seeing a sharp rebound in the second half of 2020, and it continued to be strong in 2021. A positive outlook is justified since the Baltic Dry Index (BDI) touched a ten-year high in 2021 (Divekar, 2021).

There is no doubt that the COVID-19 pandemic had impacted the global economy. In Malaysia, the majority of businesses and their operations were affected by MCO restrictions and border closure. The hospitality sector had lost almost RM3.3 billion in revenue by June 2020 (Khan & Hashim, 2020, pg. 56). However, in the context of dry bulk trade, container business and port infrastructure, Malaysia had done well as a major player in SEA. As other businesses were put on hold during the pandemic, maritime trade, particularly dry bulk shipping remained more or less unaffected. Palm oil, grains and container cargoes, for instance, were considered essential goods and depended highly on the sea as their major and cheapest medium for transport. As a country with

an economy that is heavily dependent on these products, Malaysia has seen growth despite the pandemic. Maritime connectivity and spillover from global maritime trade dependency also suggest that Malaysia will continue to enjoy positive growth.

Against this background, this paper analyses the impact of the COVID-19 pandemic on the maritime business in Malaysia by studying key commercial and technical aspects. It will focus on dry bulk trade, the container business, port infrastructure and parties involved in maritime supply chains. The paper finds that the impact of the pandemic on global maritime trade was minimal, not nearly as prominent as was anticipated, and the impact on Malaysia was also minimal.

Literature Review

Dry Bulk Market Performance during Pandemic

The dry bulk market in most countries contributes heavily to their maritime economies. For Malaysia, this market is huge with many opportunities for growth. During the pandemic, it was anticipated that with international border restrictions worldwide, the maritime business and dry bulk trade would under perform and subsequently impact many economies. Border restrictions did somewhat impact the dry bulk trade performance — 2020 was challenging for this market, and some decline was observed from January to June. However, from June 2020, the charter hire rate rose sharply from US\$3k/day to US\$35k/day (S&P Global Platts, 2020). This increase may be mainly attributed to the strong iron ore demand from China. This section presents an analysis on the dry bulk market performances during the pandemic by drawing data from prominent market index reports, such as the BDI, Platts Report by S&P and Bloomberg's analysis. The section then analyses how these market performances had impacted Malaysia.

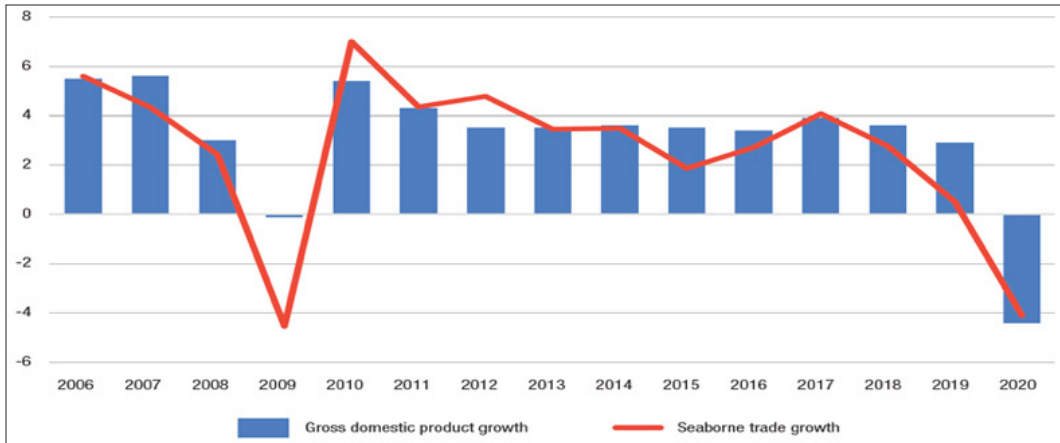


Figure 1: Development of international maritime trade and global output, 2006–2020

Source: UNCTAD calculations based on data from UNCTAD stat. (2020)

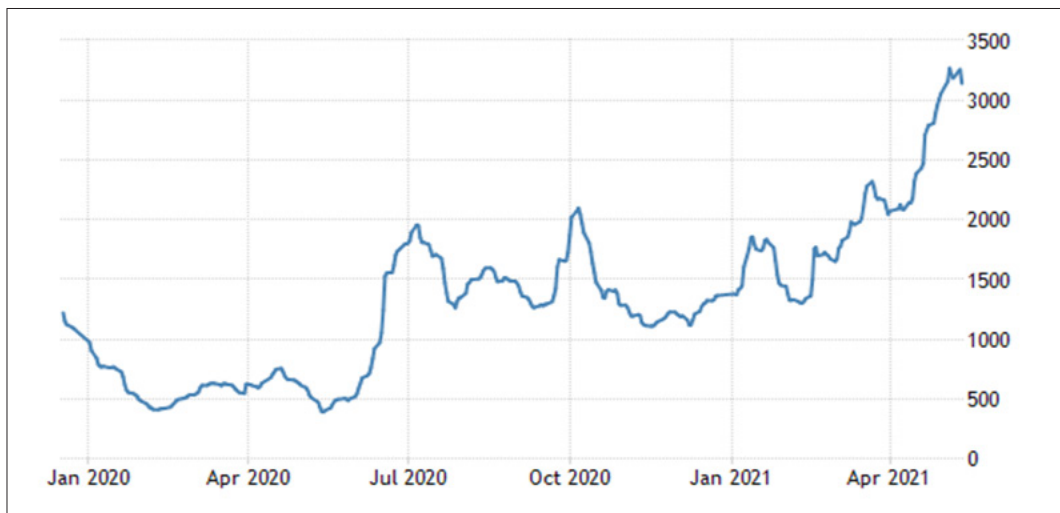


Figure 2: Baltic Dry Index from November 2019 – May 2021

Source: Baltic Dry Index (2021)

In general, it has been predicted that the dry market will be adversely affected. The United Nations Conference on Trade and Development (UNCTAD), in its annual review on maritime transport, warned that global maritime trade would plunge by 4.1% in 2020 due to the interruption in sea communications caused by COVID-19 (COVID-19 cuts global maritime trade, transforms industry, 2020).

However, in bucking the trend, the dry bulk market showed an exceptional recovery in the second half of the year when the pandemic was at its peak. The COVID-19 outbreak did cause the dry bulk market to descend in the first half of the year, driving certain indices (such as Handysize and Supramax) to their lowest second-quarter

average in 50 years (A relook on the dry industry and ponder on Maybulk, 2021). However, the dry bulk demand and freight earnings from May 2020 onwards showed positive improvement even as the market entered 2021. Two main factors were behind the market tumble in the first-half of the year: a seasonal spring festival period in China and the prolonged bad weather in Brazil and Australia (S&P Global Platts, 2020). These factors, followed by COVID-19, took a toll not only on maritime trade, but also on new building, demolition and scheduling for spot ships. The market recovery could also be due to the fact that world markets needed time to adjust to the new normal brought on by the pandemic — the shipping industry was most likely finding ways to sustain its market performances.

In mid-May 2021, the dry bulk market performances had risen. The BDI gained 3,266 points up to mid-May 2021 as Capesize rates soared with an index rise of 284 points, or 5.8%, to 5.180 and were marked at US\$20,575 for 38,000 deadweight tonnes (DWT) (Reuters, 2021). According to the *Hellenic Shipping News* (2021), this number is the highest level since June 2010. This rise was driven strongly by industrial players seeking iron ore and coal purchases. As a result, Capesize bulkers with the capacity to carry around 180,000 DWT and suitable to load iron and coal reached year-to-date highs (Miller, 2021). The Baltic Exchange's 5TC index time-charter equivalent (TCE) rates for Capesize vessels were burning 0.5% sulphur fuel

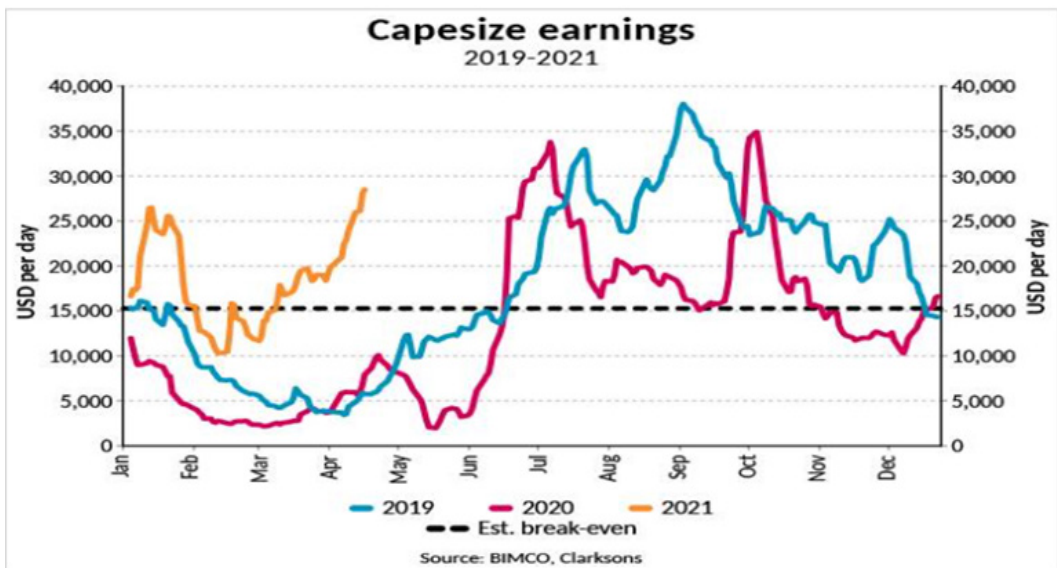


Figure 3: Capesize Earing 2019 - 2021

Source: BIMCO, Clarksons (2021)



Figure 4: Supramax and Handysize market spot rates from 2017 to 2021

Source: Baltic Dry Index (2021)

worth US\$34,293 per day — this was an enormous 127% month-on-month rise, marking the highest daily average since 2019, and a year-on-year rise of 45% (Miller, 2021). The Platts CapeT4 index rates for Capesize vessels stated that bulkers were burning 0.5% sulphur fuel worth US\$33,438 per day (Miller, 2021).

The dry bulk freight market, which was induced low in May, staged a remarkable recovery after 2020. The high market rates experienced in the first quarter remained for the following months, and as the end of June 2020 approached, the Supramax freight index rose 48 points to 2,802. This record is said to be the highest level of freight over the last ten years (Hellenic Shipping

News, 2021). Average time charter earnings surpassed the barrier of US\$30,000 per day to close at US\$30,819, recording a 332% year-on-year increase, which increased the shipping investors' interest and resulted in even greater purchase of second-hand bulkers at higher values (Hellenic Shipping News, 2021). In June 2020, the index was recorded at 2,840 points, and supply fundamentals indicated that the rebound would be sustained up to the third quarter of 2021 (Hellenic Shipping News, 2021). The market rates report in Figure 5 shows the increase of the spot rate on US\$ per tonne from January 2018 up to 2021 for all major Supramax trading routes in a round-trip voyage to Pacific and Atlantic destinations.

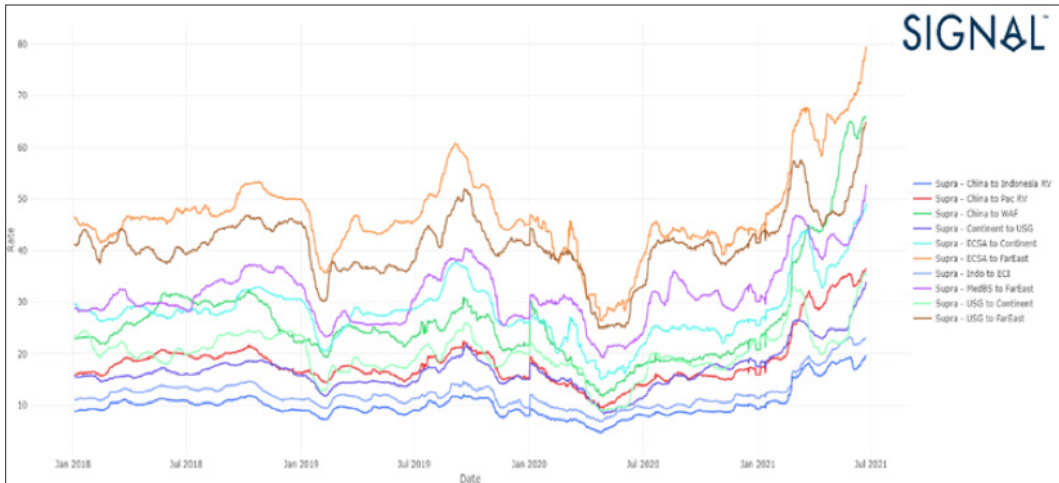


Figure 5: Market Rates for all Major Supramax Trading Routes from 2018 To 2021

Source: Signal Ocean Platform Data (2021)

In Malaysia, as a result of a spillover from the BDI productive market performances, the dry bulk market was anticipated to perform on a positive line. Bursa Malaysia-listed dry bulk operators, which showed some level of suffering due to depressed freight rates and excess capacity dating back to 2008 and 2009, had experienced similar downturn during the pandemic due to high commodity demands and stronger push for manufacturing activities in the country (Kang, 2021). However, the dry bulk freight rates rose and ship owners,

such as Malaysian Bulk Carriers Bhd (MAYBULK), one of the predominant dry bulk cargo operators that cover the world's shipping lanes, began postulating their highest performances. The group recorded a net profit of RM15.01 million in the first quarter financial year (FY) ended March 31, 2021 (1QFY2021) compared with a net loss of RM49.78 million in 4QFY2020 (Kang, 2021). The Handysize and Supramax market freight rates (MAYBULK's nine out of 12 vessels) had almost quadrupled since May to ten-year highs (Kang, 2021).

Table 1: Valuation of Selected Shipping Stocks in Malaysia

BLOOMBERG

Valuations of selected shipping stocks

COMPANY	SHARE PRICE ON JULY 8	1-YEAR HIGH	MARKET CAP (RM MIL)	YTD SHARE PRICE CHANGE (%)	TRAILING 12-MONTH PER (TIMES)	FORWARD 12-MONTH PER (TIMES)	LATEST PBV (TIMES)
Malaysian Bulk Carriers Bhd	71 sen	82 sen	710	36.5	NA	NA	2.404
Hubline Bhd	4 sen	9 sen	166.46	-20	NA	NA	1.044
Shin Yang Shipping Corp Bhd	35 sen	45.5 sen	414.62	12.9	NA	NA	0.444
Harbour-Link Group Bhd	RM1.03	RM1.15	412.41	27.2	10.74	NA	0.913
PDZ Holdings Bhd	3.5 sen	23.5 sen	30.97	-56.3	NA	NA	0.798

THE EDGE MARKET

Source: The Edge Market (2021)

In comparison, Hubline Bhd, a dry bulk operator and aviation company based in Sarawak, believes it is likely to gain further increase from the high rates as capacity is likely to get even tighter. The BDI, a bellwether for global dry bulk shipping, has risen 137% year to date to close at 3,241 points, and it touched a multi-year closing high of 3,418 points on June 29, 2021. The positive performances of BDI have had notable effect on some shipping stocks in Malaysia. The stocks have shown an outstanding level of performance that is expected to stay elevated throughout the year. According to a statement by the managing director and chief executive officer of Hubline, the dry bulk market will be in good form for the next three years, and the freight rates will climb about 40% (Kang, 2021) in the second half of 2021 (including container shipping).

The net profit for financial year 2020–2021 reported by the company is RM12.95 million compared to its previous year's loss of RM2.5 million. The company expects positive growth for the financial year ending Sept 30, 2021, (FY2021) driven by its dry bulk segment which accounts for two-thirds of the group's revenue (Kang, 2021). Even

the state-owned MAYBULK reported a rise in its share for 2020–2021. Harbour-Link Group Bhd and Shin Yang Shipping Corp Bhd have also seen their share prices rise 27% and 13% year to date to close at RM1.03 and RM0.35, respectively (Kang, 2021).

Factors for Positive Global Dry Bulk Market Growth

Many factors contributed to the increase in the dry bulk market performances and subsequently impacted Malaysia's dry bulk market growth positively. First and foremost, many essential goods are categorised as dry bulk and during the pandemic, the production of essential goods such as food items did not stop, hence the industry continued as usual. Rise in iron ore and coal demand, coupled with need for food grains, drove the market growth. While air and land transportation faced restrictions, supply of goods and commodities via the sea continued. Transport by sea is the cheapest and most economical option, so the dry bulk shipping market also enjoyed a maximum profit during the pandemic. Nevertheless, many other substantive reasons have shaped the global dry bulk

shipping market positively, including the rebound of economic activities in China, and recovery and growth of the iron industry in Australia, Brazil and India.

Rebound of Economic Activities in China

In general, the global dry bulk ship market is sectioned into phosphate rock, iron ore, coal, grains and bauxite/alumina. In this regard, iron ore is a market dominant due to its huge demand. The same is true for coal. The key to recovery in the dry bulk market is largely due to some level of easing in border restrictions by some countries to ensure that their economic activities could continue as usual. This easing of restrictions is the particular reason behind the recovery in the dry bulk market from March to May 2021. All major dry bulk commodities began on a strong note in 2021 — iron ore, coal and grains outperformed shipment volumes for the past five years. Nevertheless, cargo movement to major importing countries like the European Union, Japan and India was not the push factor. Instead, it was China that played a predominant role in the market recovery.

But even in the case of China, the iron ore trade has been recovering since the pandemic began, rising to over 100 million tonnes for the first time since December 2019, and resulting in a 14% increase between April and June 2020. This progress outstripped previous months and was vital to the dry bulk market rebound. Coking coal has been less favoured by China, but the market still did relatively better than other commodities. Even the demand for thermal coal has been quite low. Hence iron ore is a major reason for the dry bulk market to show substantial growth. In the case of grain cargoes, China has shown strong interest in its purchases, and hence, the demand for this product has also been a factor behind the dry bulk market's positive growth.

Recovery and Growth in Australia, Brazil and India

Whilst China was the major contributor to the dry bulk market rebound, the recovery and growth of the iron ore industry in Australia, Brazil and India was another factor. In the case of India, the high demand for coal and soybeans drove the market positively. Rising steel production also contributed towards the turnover in dry bulk shipping. Rice is a staple in Malaysia, and the country is also a major importer of Indian rice, which helps explain why the former's dry bulk market grew in parallel with the global one.

In Brazil and Australia, bad weather was a major stumbling block for mining and export activities, but as the weather improved, both countries showed signs of recovery. In the first two months of this year, Brazilian iron ore exports have risen by 9.1% to 53 million tonnes, driven by Chinese demand (Maritime Professional, 2021). In the case of Australia, iron ore shipments are expected to rise from 900 million tonnes in 2020–2021 to 1.1 billion tonnes by 2025–2026 (Reuters, 2021). An outstanding recovery price of US\$3,000 to US\$35,000 in the market (Reuters, 2021) is also due to the fact that Australian shippers are producing products way ahead of their fiscal calendar. At the same time, a shortage of thermal coal in India has led to high demand from any country, hence encouraging Australian traders to divert their stocks to India. The delay in Indian thermal coal imports has also led shippers from SEA to deploy their ships to transport coal out of South Africa and iron ore out of India.

In the case of Brazil, its real currency had depreciated up to 30% against the United States (US) dollar in early 2020, which affected its market performance. Although approximately 75% of Brazil's soybeans are imported by China, during the harvest period in Brazil (Ren, 2019), the grain cargoes from the east coast of South America were a huge source of support for the Panamax market positive growth.

Factors Affecting Dry Bulk Market Growth in Malaysia

Chinese Influence

As discussed, rising demand in the Chinese dry bulk market is the major factor behind the upwards trajectory of the global dry bulk market. China is the biggest importer of raw materials and among the largest exporter of finished products. It is the driving force behind the dry market recovery during the pandemic in 2020. The Chinese market influence on Malaysian trade can be adjudged from the fact that China is the biggest importer of Malaysian goods. As per World Integrated Trade Solution (WITS), Malaysia exported US\$33,690 million worth of goods to China, with a partner share of 14.15% in 2019. Further to that, Malaysia also imported US\$42,365 million worth of goods from China, with a partner share of 20.68%. The major exports to China include electrical components, machinery, boilers, mineral fuel and oil, while imports were finished products from China. The majority of these products are transported by dry bulk shipping.

With the dry bulk trade routes continuing to grow between China and Malaysia, and with the market rebounding to crest level, it is clear how the Malaysian maritime trade has benefited. Malaysian exports have performed well from June 2020 to 2021, with a 27% increase of value up to RM105.5 billion. It enjoyed five straight months of double-digit growth, and achieved an above-market consensus of 11.7% gain (Market Business Insider, 2021). Before that, it was experiencing a slowdown from a 47.3% surge in prior months before the pandemic (Trading Economics, 2021). Exports increased for all sectors, namely manufactured goods (25.8%), mining (32.9%), and agricultural goods (40.0%) (Trading Economics, 2021). The manufacturing sector in the country marked a positive progression with the heightening of exports in electrical and

electronic products, followed by rubber and petroleum. Malaysia's exports to major trading partners also grew to an outstanding position, such as to the US (32.0%), China (18.5%) and Singapore (15.1%) (Trading Economics, 2021). Regionally, exports to Association of Southeast Asian Nations (ASEAN) countries jumped by 22.7% (Trading Economics, 2021). Although demand from China is the major reason for skyrocketing container trade, as well as dry bulk freight and daily hire rate of time chartered vessels in Malaysia and the world, other countries also had their own impact in boosting maritime trade during the pandemic.

Influence of Other Countries

India is a major trading partner of Malaysia with an annual value of almost US\$16.146 billion in the financial year 2020 – 2021 (Trading Economics, 2021). Indian exports to Malaysia have increased in 2021 to 48.89 billion INR from 45.08 billion the previous year (Trading Economics, 2021). The major imports are aluminium, mineral oil, organic chemicals, meat, iron, and steel. In return, Malaysian exports to India primarily consist of palm oil, mineral fuel and electrical and electronic equipment. According to the *Business Standards* (2021), India's agriculture exports have jumped by 17.34% to US\$41.25 billion in financial year 2020-2021. It is worth noting that Malaysia is among the biggest importers of grain from India. Grain is transported as bulk and bagged forms in handy-sized bulk carriers, which helps to explain the rise in dry bulk market trade between Malaysia and India. While pandemic restrictions were implemented in Malaysia, with the majority of the population being confined at home, this has led to an increase in grain. These increases may put further, if indirectly, pressure on dry bulk shipping, leading to increases in shipping traffic and trade. It is also expected that in FY2020/21, corn imports will reach 4.08 million metric tonnes

(MT) because of the stable and continuous demand for poultry feed (US Department of Agriculture, 2020). Furthermore, given that rice consumption will increase to cater to a growing population, imports of rice in FY2020/21 are forecast at 1.18 million MT, up roughly 80,000 MT from the previous year (US Department of Agriculture, 2020).

In addition, Malaysia imports 60% of its coal from Indonesia, 17% from Australia and 12% from South Africa (Tipson, 2018). According to Tenaga Nasional Berhad, which is the country's main electricity provider, coal shares have been rising and are forecast to increase from 47% to 63% in 2020. From 2020 onwards, power consumption is also expected to increase, and this will subsequently boost imports of medium- and low-calorific value (CV) coal. Coal is primarily carried by Panamax and Capesize vessels. Therefore, as demand for iron ore and coal rise, the Malaysian dry bulk market will also continue to grow. While other businesses are severely affected by the pandemic, a rise of almost 24% in Malaysia's palm oil exports was observed in 2021 compared to the previous year. Crude and refined palm oil is carried by product tankers, and India is a major importer of Malaysian palm oil. As a result, the maritime business between the two countries has gained significantly during this period. The vessel calls have increased, and Malaysian trade has leveraged the increased demand for palm oil export.

Methodological Design

This paper employed qualitative design by utilising content analysis to understand the impact of the pandemic on the maritime business in Malaysia, especially on commercial and technical aspects. The data is derived from published reports. This paper employs secondary data and draws on analyses from prominent reports, such as the BDI, Platts Report by S&P and Review of Maritime Transport by UNCTAD

to support its analysis. The paper is divided into three sections: a) The changes in the selected maritime sectors before and during the pandemic, b) the factors affecting dry bulk market growth in Malaysia, and c) the lessons learnt with corresponding recommendations to improve the Malaysian maritime business post-pandemic.

Results and Discussion

In general, the pandemic has provided lessons to stakeholders in the maritime trade industry. First, the dry bulk market is very volatile and needs to be monitored carefully. For instance, as Allied Shipbroking Inc. (an international freight and cargo service provider) noted:

The uncertainty witnessed this year in the iron ore trade has been extraordinary making for a very volatile freight market for the Capesize sector, which varied wildly from a low of US\$3,460 to a high of US\$38,014 in the year so far. However, it suddenly showed improvement from the third quarter of 2020 subsequently postulating prospects of the iron ore market in 2020 (*Hellenic Shipping News*, 2021).

This scenario indicates how the shipping industry, already known to be highly volatile, has seen huge transitions during the pandemic in the past year alone. As a risk-prone industry, it is difficult to predict rates and prices accurately. However, shipping also has a high-return profile. Investment decisions are often based on comprehensive analysis of risk measurements and management basis, since these decisions may constitute long-term decisions with crucial financial implications.

Second, the dry bulk market is primarily impacted by Chinese demand. Given China's important role in the dry bulk market, particularly its strong influence on freight levels of the Capesize segment,

China's development and recovery in industrial production should always be kept in mind. China's intensive import levels have, so far, been enough to support market fundamentals and rates. However, volatility remains for the dry bulk market, and hopefully, the rest of the world will follow suit in the recovery wave at some point soon.

Recommendations

The Malaysian maritime business, especially in the dry bulk market, has projected fairly good progress during the pandemic. Nevertheless, the following recommendations may help the country perform better in this market. Malaysia needs to focus on consolidating its maritime trade. As mentioned earlier, maritime trade is the backbone of the country's economy, contributing 40% to the national GDP. Maritime trade has been a major factor in the survival of the Malaysian economy during the pandemic. While most other sectors suffered terribly, the maritime business grew at a phenomenal rate. Malaysia may consolidate its maritime trade by working to achieve the following:

Uninterrupted Traffic Flow

International and coastal vessels need to have uninterrupted traffic flow in local waters so that the goods they are transporting may arrive and depart from ports in the most seamless fashion possible. The coordination between ports, vessels and customs should be such that the vessel berthing/departure time is minimised. The government should also support various stakeholders like traders, buyers, sellers, charterers and vessel owners to facilitate and minimise disruptions to maritime trade.

Robust Supply Chain

During the pandemic, one of the main concerns is access to essential goods and

supplies. For the most part of 2020 and 2021, Malaysia government had implemented the MCO, but port and shipping activities were allowed to continue. However, delays occurred in the regular processes due to changes in port protocols, quarantine measures, additional documentation, and health screening of workers. More delays were experienced because human contact was reduced, so there was a shortage of labour in the loading/unloading of ships and cargo inspection. These delays had affected the country's national security as shortages of supplies, especially food and essential items, may create panic among the people. Hence, the government needs to come up with a well-coordinated sustainable plan to ensure that the country's supply chain can operate continuously. In other words, the government must enhance trade movement at all times with minimal delay. Given that a pandemic can restrict human contact, digitalisation of port processes and adoption of advanced information and communications technology is recommended.

Improving Traffic of Raw Materials

Malaysia needs to increase its import and export of raw materials, which will enhance its maritime trade capacity. According to recent reports, Malaysia's export of bauxite (aluminium ore) increased sharply in 2015 and 2016, resulting in major growth that superseded Indonesia. Further increase in bauxite exports would also be beneficial for Malaysia as it is a major component of the Chinese maritime market. Due to China's toughening of its environmental laws, there was a clampdown on bauxite mining in the country and caused its industry to rely on imported bauxite. Since the ban on bauxite mining was implemented in China, there was an increase of import by 20% in 2018. This increase is expected to continue in subsequent years (Firman, 2019). The gap between domestic and imported ore in China

will continue to consolidate in its bauxite market. Malaysia can take advantage of this situation by exporting its bauxite to China or focusing to become a hub for the trade of such products.

Seamless Cargo Movement without much Human Intervention

Malaysia should strive to create easy movement of cargo by investing in automated ports as it will reduce the number of maritime accidents caused by human error. According to UNCTAD (2018), only one per cent of port terminals in the world are fully automated, and only two per cent are considered semi-automated. Technology advancement has led to growing adoption of automated and semi-automated terminals; such terminals are more efficient and may improve regular gross productivity compared with manual terminals. The main advantage in automating port container terminals is cost effectiveness – automation reduces costs per handled container. If the traffic volume is sufficient to cover the investment costs, automated port container terminals can be useful, especially in a pandemic which requires minimised human contact. Automation also increases the reliability, consistency, predictability and security of port operations. The idea is to create smart ports that do not need as much human handling with wireless communications and non-human contact technologies. Automation reduces human intervention and, at the same time, meets the logistical need of food supply chains. Since 2020, the Port of Tanjung Pelepas has moved towards becoming the region's most technologically advanced port by deploying Portchain's Berth Optimisation Engine as part of its digitalisation journey (Aris Z & Ang 2020). This effort is a good start for other ports to follow suit.

Job Generation in Commercial Shipping

While other industries are struggling, freight rates have skyrocketed. Job generation in commercial shipping is key. Despite huge job losses in other industries, the shipping industry has shown continuous growth. The freight rate market of dry bulk and container trade has witnessed immense growth even during the pandemic. The movement of goods did not stop, which means people are needed to work in the commercial shipping industry. The more trade exists, the more vessels need to be chartered, which in turn, implies more business in the ship brokering and ship chartering sector. Malaysia should focus on training people in the commercial aspects of the global maritime industry, which needs skilled employees who can generate business for them on a continuous basis, keeping in mind the competitive nature of the market.

Improved Port Infrastructure

According to UNCTAD, Malaysia is the world's fifth best connected country in terms of shipping line connectivity, ahead of the Netherlands and the US. Malaysia's strategic location between the East and West is the main reason for its role as a major container transshipment hub. Indeed, Malaysia has shown an impressive increase in container traffic through its ports, surpassing most other ASEAN members. Malaysia's is also the world's largest liquefied natural gas (LNG) exporter — it is home to the first floating LNG port facility — besides having the largest palm oil terminal as well. Since 2000, Malaysia has recorded a 400% growth in container throughput; it now manages almost a quarter of all containers in the region (Heide, 2020). Therefore, as a preferred country in the SEA market, Malaysia needs to ensure that its ports remain competitive

to increase the country's trade volume and showcase its strength as a maritime nation. According to a report by Egide van der Heide (2020), Malaysian ports have plenty of room for improvement, especially in terms of digitalisation and automation.

Conclusion

The COVID-19 pandemic has undeniably affected global maritime trade at an unprecedented scale. In Malaysia, many industries have struggled during this period. However, shipping and maritime trade seem to have been least affected despite the dramatic decision by most countries to impose border restrictions and lockdowns. By the middle of 2021, Malaysia's shipping industry has partly recovered because border restrictions were more focused on land and on air travel to curb the spread of COVID-19. Sea routes, in comparison, continued to serve as a major medium of transportation worldwide. Even in the second half of 2020, the Malaysian markets had experienced some benefits parallel to the rebound in the global market. The major reports in this paper have highlighted the importance of the dry bulk market as a common course of survival in most countries. The BDI, Platts Reports and UNCTAD all projected a sharp rebound in the second-half of 2020, and that rebound has continued firmly into 2021. Positive valuation of selected shipping stocks in Malaysia has shown that the comeback in dry bulk performances had progressive spillover in the nation.

The optimistic growth in the dry bulk market was strongly driven by the Chinese market, which rebounded after some recovery in the country's pandemic status. A similar scenario was observed in the case of Australia, Brazil and India. The

strong demand for iron ore, steel, coal and grains was a major factor that helped Malaysia's maritime trade and dry bulk market to continue progressing despite the pandemic. It is worth nothing that these countries are major trading partners of Malaysia — this partnership explains the importance to continue maintaining an active trade relationship with these countries. Nevertheless, while existing forecasts are pointing to a recovery in 2021, the expectations remain uncertain and subject to the course of the pandemic, as well as the effectiveness of policy intervention measures aimed at stimulating growth. This global-level impact has both direct and indirect implications for Malaysia. As a key player in maritime trade, the country has learnt several lessons from the pandemic. The shipping industry should be encouraging to prepare for future pandemics with medium- to long-term plans that support the global dry bulk market. In addition, and perhaps most importantly, Malaysia should bolster and protect its own maritime shipping industry and businesses in future.

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