

## Navigating COVID-19 Challenges in Malaysian Haulage Industry

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### ABSTRACT

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The COVID-19 pandemic's global effects significantly disrupted supply chains, with the critical Malaysian haulage industry bearing the consequence of the impact. This study delves deeper, exploring the unique challenges faced by these companies beyond the initial disruptions. By leveraging secondary data from government reports and scholarly articles, the research identifies key issues impacting operational efficiency, economic viability, market dynamics, and workforce availability. The study has two main objectives. First, it comprehensively assesses the distinct challenges posed by COVID-19 on the Malaysian haulage sector. This goes beyond initial disruptions and explores the long-term ramifications. Second, the research evaluates the coping mechanisms adopted by haulage companies during the pandemic, assessing their effectiveness and identifying areas for improvement. This research's significance lies in its contribution to a deeper understanding of the challenges faced by the Malaysian haulage industry. By informing policymakers, industry stakeholders, and scholars, the findings can facilitate the development of adaptive strategies to build resilience and ensure continued growth in the face of uncertainty.

## 1. INTRODUCTION

COVID-19 has affected over 200 countries worldwide, consequently, impacting global trade and the economy [1, 2]. The effects have been especially felt by low-income countries, with weak health systems, which have stopped all but essential activities are required for long term strategies. The transportation industry is facing extreme challenges and struggling with the disruptions during pandemic outbreaks of COVID-19. It involves road, rail, sea, and air transportation [3]. The haulage industry was one of the sectors most impacted by restrictions and facilitation measures. In particular the government responses to the emergency are rapidly changing the day-to-day realities and haulage industry with specific regulations for their movement. The haulage industry is the biggest transportation fleets holding in Malaysia with tight restrictions which include low demand, stringent movement rules concerning less assignment, and the closure of factories and seaports [4].

The interrelations of worldwide supply chains reveal weaknesses that affect the industry's crucial function in global trade networks as emphasized [5, 6]. Another study conducted by study [7] emphasizes the economic consequences, making the industry vulnerable to changes in trade dynamics and economic downturns. The operational obstacles faced during health crises, as explained by study [8], offer valuable insights on the capabilities of the sector to withstand and adjust to unforeseen shocks. In order to maintain operational continuity, it is crucial to priorities addressing staff reduction and human

resource difficulties [9]. In addition, the study conducted by on policy reactions during pandemics influences the strategies adopted by the industry to enhance resilience [10]. Together, these factors contribute to the unique characteristics and importance of the difficulties encountered by the Malaysian haulage industry during the current global health crisis.

Prior to COVID-19, the Malaysian freight (haulage) and logistics market were expected with a compounded annual growth rate (CAGR) of 11% in the forecasted period [11]. At the same time the economy was projected to grow between 5% and 6%, driving the growth of the logistics and transport sector are expected to be 8-12 % in the future [11]. This will enable the logistics sector to handle greater volumes of freight and speed up the time taken to deliver goods across the supply chains with lower the costs of delivery. Unfortunately, the disruption made through an appearance on the outbreaks of COVID-19 which enforced the policy on Movement Control Order (MCO) [12]. During the initial phase of the MCO, haulage operations were abruptly disrupted as port workers were restricted to their homes. No containers were allowed to be transported in and out of the seaports. The impact of COVID-19 outbreaks on the global economy could be more severe than the impacts of the other major outbreaks in recent history e.g. SARS (2002-2003), MERS-CoV (2012), A/H1N1 (2009-2010) or Ebola (2013-2016) [13]. Hence, the widely reported effects on daily operations in the haulage industry depend on the delivery of goods in containers. These businesses have experienced a decrease in demand, which has repercussions for their entire fleet movements. This trend is

expected to persist, potentially leading to partial or full land border closures, limited trucking availability, congestion, bottleneck alerts, and disruptions in pickup and delivery schedules.

COVID-19 has had a significant impact on global shipping and operations, affecting air, ocean, and road freight (haulage) and related forwarding agencies in Malaysia. The Malaysian haulage industry, a crucial component of the nation's logistics network, has encountered significant challenges during this unparalleled global crisis. Therefore, conducting an in-depth analysis to comprehend the operational dynamics of COVID-19 and its impact on the Malaysian haulage sector is of paramount importance. The primary objective of this study is to assess how the COVID-19 pandemic has affected the Malaysian haulage industry, considering the multifaceted challenges it has faced. Consequently, gaining insight into the repercussions of COVID-19 in the Malaysian haulage industry holds significant relevance for industry stakeholders, policymakers, and researchers seeking to strengthen their strategic planning and policy development, especially in the context of disruptions to supply chain and logistics networks.

## **2. CHALLENGES PERSPECTIVE IN THE MALAYSIAN HAULAGE INDUSTRY**

In the dynamic Malaysian haulage sector, understanding and tackling its diverse challenges is vital for promoting sustainable growth and adaptability. This section will provide a comprehensive overview of the factors influencing the haulage sector in Malaysia, establishing a solid foundation for future research and policy development in this sector.

### **2.1 The operational effectiveness**

The haulage industry is one of the sectors which most impacted by COVID-19 invites further intervention by the Ministry of Transport in Malaysia. As part of the initial mitigation by the ministry is to allow seaport operations to resume the freight forwarders, haulers, and transport services to address the potential goods especially on medical equipment [14]. During the latter stages of the Movement Control Order (MCO), ports returned to regular operations, enabling various economic sectors and sub-sectors to recommence their activities. Nevertheless, vessels continued to be restricted from accessing ports, with strict control measures in place for crew change procedures. This precautionary approach aimed to prevent the transmission of the virus and mitigate any adverse effects on the haulage industry [15]. The haulage industry is also affected through, the US-China trade tensions have caused a decline in container throughput in Penang Port, Port Klang, and Johor. The Malaysia ports have also suffered a disruption on the supply side, i.e. backlogs at the ports as some stevedores and truck drivers are unable to return to work [16]. Similarly, the focus of ports is shifting towards logistics managed by freight forwarders, haulers, and transportation services due to the ongoing impact of the Coronavirus pandemic. Communication between transport operators and customers were also disrupted due to less market and limited movements. Several factors influencing the haulage industry and customers with unconnected to the information and communication technology (ICT) of third party logistics in Malaysia [17, 18]. The plunge in international oil prices and low demand in

container was the lesson learned for crafting Malaysia's bunkering strategy. Container traders faced the difficulties of insufficient capital to anticipate potential risks in the business due to less of vessel movements [19], Singapore and Malaysia coordinate coronavirus fightback which allows part of haulage trucking entering the countries vice versa with strict checking but slows in movements [20]. Ports, Terminals and the haulage industry should be connected with scheduled operational activities through an effective supply chain. A big number of abandoned trailers parked at the container yards and some with no movement at all. Systematics on Drop trailer method (DTM) monitoring in the haulage industry to control cost-effectiveness were not being practiced. A physical survey was conducted in April 2020 and identified on fewer movements, no activities in the manufacturing industry, and ports closures. Nevertheless, the Malaysia and Thailand border is still closed until the end of 2020 [21, 22].

### **2.2 Market economy**

The potential economic consequences of COVID-19 may lead to losses ranging from US\$5.8 trillion to US\$8.8 trillion. This corresponds to 6.4 percent to 9.7 percent of the global gross domestic product, according to a new report released by the Asian Development Bank (ADB) [23]. They found that the relative risk of COVID-19 brought the global economy to a sudden stop, causing shocks to supply and demand. The economic stimulus package as approved by the Malaysian government of 7.8 billion allows on the internal domestics to move. It includes the SME, transport, and logistics as well as tourism sectors [16]. The recent review of Malaysian economic growth from 2020-2021 is expected to be a downwards trend between 0- 0.74% and caused a negative impact on to haulage industry and logistics sectors as well. The economics shows as U curbs trend and expected to take about five (5) years to recover and back to normal. The data is based on a maximum 14 % GDP in transport sectors annually [24]. The transportation and logistics sectors were devastated by COVID-19 for external market and remaining compatible for better growth for internal [25, 26].

The United States Customs imposed a hold on the entry of goods manufactured by subsidiaries of the largest global medical glove manufacturer, Top Glove Corp Bhd in Malaysia. This measure is directed at companies suspected of employing forced labor, which further impacts the demand within the haulage industry [27]. The impact on container shipping lines in the world statistics from the coronavirus pandemic could total about 17 million twenty-foot equivalent units (TEUs) expects a strong volume rebound in 2022 [28]. Malaysia's freight forwarders and haulage companies were instructed to clear shipments of containers at the major ports in the second week on March 26, 2020, through a restricted movement order imposed due to coronavirus [29]. This may jeopardize the movement since haulage transport is a popular land transport throughout the country which involves short, long-distance travel from and to seaports which indirectly forced with sudden stops (MM). The impacts of COVID 19 from March 2020 to December 2020 are a great effect on the manufacturing and haulage industry that mandatory imposed on the reduction of workers and vehicle capacities in order to survive in the market [4]. The haulage market is declining and some there was demand during this time. This indirect phenomenon is expected to lead to a decline in container exports, impacting Thailand's economy with a contraction of

at least 5 percent in 2020. The recovery to pre-COVID-19 GDP output levels is anticipated to extend beyond a two-year period [30]. Therefore, the potential economic impact of COVID-19 could result in a substantial loss of US\$8.8 trillion for the global economy [23].

Numerous countries have reacted to the pandemic by implementing lockdowns or restricting people's movements. Retailers and manufacturers have been unable to retrieve their cargo and containers because their warehouses are either at full capacity or closed, as they are not considered essential service providers. While some ports are operational, they are operating with reduced staffing levels, which intensify the congestion of cargo. Consequently, this disruption has significant repercussions for the supply chain, particularly affecting the transportation of essential goods and food items [31]. COVID 19 made cargo and containers lying uncollected at the ports creating congestion, space, capacity, and hinders capacity for incoming shipments [32]. Some Ports have taken the precaution to declare 'force majeure' to pre-empt claims and legal liability [33]. It is also involved with the precaution to declare 'force majeure' to pre-empt claims and legal liability [27]. The closure of Ports and Port congestion has caused disruptions in the supply chain and imports and exports. Implications of the disruption include; (i) no vessel calls in for the respective ports; (ii) no movement for container handling; (iii) grounded heavy machinery and equipment; (iii) rescheduling with the minimum working staff; and (iv) costs cutting measures to various expenditures including salaries and wages.

**Table 1.** Numbers of cargo and container handling at ports and airports in Malaysia

Type of Cargo	2017	2018	2019	2020
International	168709870	166516196	146407165	70973602
Domestic	235375877	260360397	283290816	137396082
Total	404,085,747	426,876,593	429,697,981	208,369,684
Drop/Increase from previous year	-	5.64%	0.66%	-51.50

Source: Ministry of Transport, 2020

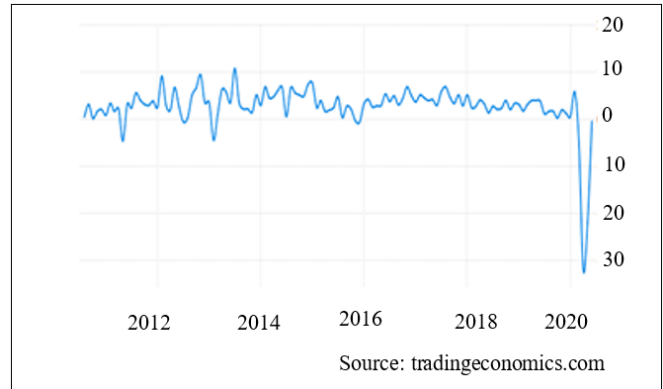
Regarding import/export operations, there was a notable decrease of 51.5% in air cargo transportation in 2020, whereas maritime freight experienced a slight rise of 0.96% compared to 2019. This indicates a preference for maritime transport over air transport due to its lower service charges, despite the longer waiting time required. Additionally, Table 1 highlights that air cargo imposes restrictions on the type and weight of goods that can be shipped.

### 2.3 Market forces

Based on the previous statistics, it can be seen stable for five years of 2015 – 2019 for recovery period which is expected for all industries to experience a very bad situation in this period in Figure 1. While industry production in Malaysia related to the achievement of the haulage industry for the past years. The statistics show that Malaysia Industrial Production has averaged movement in ten years (10) between 5-9% and negative growth has been shown from -1 to -5% in 2011, 2013, 2015 and sharp declining rates (U curbs) in 2020 to -32% and the year 2021. World economic as predicted between 1-2 % for the next five years, is normally parallel with the current

phenomenon is making the haulage industry a more devastating entity in the history of the business [34].

The rate of haulage transport involvement is linked to the increase in port throughputs, encompassing the delivery of containers to the nearest port for import or export from 2017 to 2020. Table 2 illustrates an annual increase of 300,000 to 500,000 TEUs during this period. In the years 2017 to 2020, the most notable indicator of increased port throughputs occurred in 2019, with a 5.60% rise in TEUs, followed by a 4.64% decrease in 2020 compared to 2019. A significant decline is anticipated in 2020-2021 due to the impact of COVID-19, marked by drastic reductions in the year 2020 [35].



**Figure 1.** Malaysia Industrial Production  
Source: Department of Statistics in Malaysia, 2020

**Table 2.** Total container handled at port across Malaysia (TEUs - Twenty Foot Equivalent Units)

Type of Cargo	2017	2018	2019	2020
Export	4144914	4437160	4607125	4595180
Import	4069581	4347454	4583855	4473007
Transshipment	15569293	16156788	17230598	17609592
Total	237,837,882	249,414,022	264,215,782	266,777,79
Drop/Increase from previous year	-	4.64%	5.60%	0.96%

Source: Ministry of Transport, 2020

### 2.4 Manpower reduction

Overall, nearly 90% of the World's population is subject to some form of international travel restrictions and involved with manpower reduction [36]. Regarding worldwide employment, it is anticipated to reduce to a range of 158 million to 242 million jobs, and a significant 70 percent of these losses will be concentrated in the Asia Pacific region. Globally, labor income is projected to decrease by a substantial sum, specifically between US\$1.2 trillion to US\$1.8 trillion. Notably, around 30 percent of this income reduction, roughly ranging from US\$359 billion to US\$550 billion, will be experienced by economies within the region [37]. In the United States, the trucking sector saw the disappearance of over 88,000 jobs within the truck transportation industry in April 2020. This marked a 5.8% decline from March 2020 and constituted the most substantial decrease ever recorded. It was part of an unprecedented nationwide job loss of 20.5 million, leading to a surge in the country's unemployment rate to 14.7% [38].

In the Malaysian transportation and service sectors, a significant reduction in the workforce is anticipated, with estimates ranging from 10,000 to 15,000 jobs in the former and

approximately 500,000 to 700,000 jobs in the latter [34]. While in China from late January to early April 2020 of one year the impact of lockdown on annual labour supply reduced about 30% [39]. In Thailand, the COVID-19 pandemic led to a substantial decrease in international tourist arrivals. In 2020, the number fell to 6.7 million and further dropped to 427,869 in 2021. Nevertheless, by the latter half of 2022, the figure rebounded significantly, reaching a total of 11 million visitors. This decline in tourism had a severe impact on the approximately 3.9 million individuals employed in the industry. According to data from the Labor Ministry, prior to the pandemic's inception, the tourism sector employed around 7.7 million people [40]. In Malaysia, major challenges in the supply chain for large and listed companies revolve around delays in receiving supplies. On the other hand, small and medium enterprises (SMEs) face challenges related to delays in fulfillment and delivery. A majority of large and listed companies are seeking exemptions from cross-border and service taxes. They are also requesting additional credit facilities from banks. Moreover, there is an emphasis on maintaining open communication with suppliers through dialogue sessions to address issues within the supply chain.

Transportation, logistics cut to underweight and destroyed by COVID-19 and recovery plan of transportation & logistics sectors are varied among different segments. The projected unemployment rate for this year is estimated to reach around 629,000 individuals, showing a significant increase from the 3.3% rate observed in 2019 [25, 41]. Also predicted that between 951,000 and 2.4 million jobs would be lost: 647,000 jobs to 1.6 million jobs from the unskilled category, 303,000 jobs to 780,000 jobs from the skilled category 18.7%. The Asia Pacific region is anticipated to bear the most substantial impact of COVID-19, with an estimated job loss of around 63.4 million. In contrast, Europe is expected to be the second most affected, with a projected decline in employment of 13 million [42].

### **3. MITIGATION ASPECT IN THE HAULAGE INDUSTRY**

The Malaysian government has introduced its initial stimulus package, allocating an additional US\$1 billion to support small and medium enterprises (SMEs). This package, valued at US\$4.8 billion, is designed to mitigate the immediate impact of the outbreak on vulnerable sectors and households. The second package, worth US\$57 billion, is primarily focused on bolstering existing financing facilities and allocating US\$2.4 billion for food security. Assistance is also directed toward the low-income group, including financial aid and payment restructuring for housing and car loans. An additional RM250 billion is allocated for the Prihatin Rakyat program. Furthermore, the government has implemented the movement control order (MCO) along with standard operating procedures (SOP) [43]. The haulage industry should be practicing on proper mitigation in logistics procurement through several mitigations by looking at the available assets, value and costs in maintain for the longer period times. Revised the loan facilities should be obtained in maintaining the asset until the economy recover. Permanent contracts in the memorandum of understanding should be put on hold for the purpose of costs restructuring [44]. This research is intended to study the impacts of COVID-19 of the haulage industry in Malaysia and suggests for the specific measure in future

pandemic outbreaks especially on the grounded vehicles. The haulage industry should be practicing theory the Adoption of business intelligence, technological, individual and supply chain efficiency in order to stay longer in market [45, 46].

Initiatives to prolong the aging assets life cycle through scheduled maintenance needs to be practiced as usual. A proper stocktaking, checklists, and be prepared for future challenges in the market recover [47]. A proper maintenance program especially on the prime movers and trailers are required to be monitored [21, 22]. The government implemented a moratorium strategy with appropriate initiatives and made the domestics economic growth. The mitigation by the government reflects on the haulage industry as a whole which impacted with the following:

#### **(i) Digital transformation and automation**

Introducing digital technologies such as route optimization software and automated tracking systems can streamline logistics processes, reduce manual intervention, and enhance overall efficiency. Automation can minimize physical contact points, improve real-time visibility of shipments, and contribute to quicker response times, ultimately aiding in a faster recovery by ensuring smoother and more resilient operations.

#### **(ii) Supply chain diversification**

Diversifying the supply chain by identifying alternative suppliers and transportation routes mitigates risks associated with disruptions in the primary supply chain. This strategy enhances resilience by reducing dependence on a single source, thereby minimizing the impact of disruptions. It ensures a more adaptable and flexible haulage network, crucial for sustained recovery during uncertainties.

#### **(iii) Employee training and safety protocols**

Providing comprehensive training on health and safety measures ensures that the workforce is well-prepared to adhere to guidelines and minimize the risk of COVID-19 transmission. A healthy workforce is critical for maintaining operational continuity. Implementing stringent safety protocols not only protects employees but also fosters confidence among stakeholders, contributing to a safer and more sustainable recovery.

#### **(iv) Collaboration and communication**

Establishing effective communication channels and fostering collaboration with key stakeholders, including government agencies and suppliers, facilitates information exchange and collective problem-solving. Improved communication ensures timely responses to challenges, fosters a collaborative environment, and allows for the sharing of resources and information. This collective effort can contribute to a more coordinated and effective recovery.

#### **(v) Green initiatives and sustainable practices**

Integrating environmentally friendly practices, such as fuel-efficient technologies and eco-friendly packaging, aligns with global sustainability trends and can lead to long-term cost savings. Embracing sustainability not only enhances the industry's reputation but also attracts environmentally conscious customers. Moreover, it positions the haulage industry as a responsible player, contributing to long-term recovery and resilience.

#### **(vi) Financial planning and risk management**

Developing robust financial plans, including effective cash flow management and risk mitigation strategies, ensures financial stability during challenging times. A sound financial foundation allows businesses to weather economic uncertainties, maintain liquidity, and continue essential operations. Effective risk management provides a buffer against unforeseen challenges, contributing to a resilient recovery in the haulage industry.

#### 4. DISCUSSION

This study has formulated several strategies and directions for further discussion. The findings of this study revealed and concluded as following:

- (i) The foreseen scarcity of labor at vital stages in the supply chain is expected to reduce the capacity for distributing and handling containers, cargoes, and stock throughputs. Prolonged waiting times for cargo are anticipated at ports and storage facilities, leading to increased volumes as stocks await their subsequent destinations. This could result in a diminished demand for haulage transport. Future research could explore innovative strategies to address workforce shortages, including automation, skill development initiatives, and adaptive workforce management practices, aimed at enhancing operational efficiency and responsiveness in the face of labor challenges.
- (ii) The restrictions of standard vessel hatch covers are raised at vessel discharge areas to prevent delays in cargo movement, ensuring smooth trade and transit. Storage delays may become inevitable as a result. It's important to note that many cargo and stock throughput policies do not cover losses or damages caused solely by delays. Vessels must also be free of infectious diseases. These factors may contribute to a reduced demand for haulage transport.
- (iii) Incurring extra expenses, such as delays or the need to redirect goods to an alternative destination due to government restrictions, will result in additional charges. While these costs are typically subject to sub-limits, the additional forwarding costs clause, or a similar provision, offers additional financial assistance in case you encounter supplementary expenditures beyond the regular expenses.
- (iv) Vulnerable goods and perishable items, such as pharmaceutical products and food produce, follow a strict and closely monitored schedule. Standard marine insurance coverage does not align with the specific needs of these cargoes. Exclusions related to inherent vice and delays come into effect, especially when ports are congested, and cargo clearance is hindered during the ongoing pandemic outbreak.
- (v) The haulage sector might encounter legal conflicts requiring thorough scrutiny of contractual arrangements, force majeure provisions, and the distribution of responsibilities amid disruptions caused by pandemics. These disagreements highlight the significance of well-defined and inclusive legal structures within the haulage industry to navigate unexpected challenges and establish principles for just and impartial resolutions. Future research could delve into identifying optimal practices in contractual frameworks and mechanisms for resolving

disputes to strengthen the industry's ability to withstand crises effectively.

- (vi) Owners of goods renting vessels for cargo loading or discharge must designate a "safe port," which refers to a port where the vessel can safely perform cargo operations and depart securely. In instances where the initially intended port is closed, the cargo owner or charterer is obligated to propose an alternative port. However, this proves challenging, as there may not be a viable alternative destination for cargo discharge.
- (vii) The goods' owner, who charters vessels for loading or unloading cargo, must specify a 'safe port' – one where the vessel can safely dock, perform cargo operations, and depart without issues. When the initially intended port is inaccessible, the cargo owner or charterer is compelled to propose an alternative port. However, this can be problematic because there may be no viable alternative destination for unloading the cargo.
- (viii) During a national lockdown, non-essential cargo cannot be transported to the ports. This situation may lead to a scenario where a vessel arrives at the port but finds no cargo to be shipped, resulting in costly demurrage charges.
- (ix) The consequences of the pandemic may be addressed in some contracts through "Force Majeure Clauses" (in contract law), but these clauses are not standardized and may not always be applicable. The disruptions caused by the pandemic will lead to losses, and the main issue at hand is determining who will bear or share these losses.

#### 5. CONCLUSION AND RECOMMENDATION

In navigating the unprecedented challenges posed by the COVID-19 pandemic in the Malaysian haulage industry, it becomes evident that a multifaceted and adaptive approach is essential for recovery. The industry has faced operational disruptions in supply chains, workforce safety concerns, and operational uncertainties. However, the strategies discussed, including digital transformation, supply chain diversification, employee training, collaboration, sustainability, and financial planning, offer a roadmap towards resilience and sustained recovery, along with the following recommendation:

- (i) Active supply chain techniques enable quick adaptations to changing conditions and resilient responsiveness to disturbances.
- (ii) To improve efficiency and responsiveness, invest in digitization, including advanced tracking systems, automated procedures, and data analytics.
- (iii) Diversify supply chains to reduce risks and improve industry resilience.
- (iv) Maintain strong safety protocols, regular training, and mental health assistance to help employees overcome future issues.
- (v) Increase collaboration with stakeholders, industry peers, and government agencies to share ideas, resources, and resilience activities.
- (vi) Sustainable haulage operations should include eco-friendly technologies, fuel-efficient tactics, and waste reduction for long-term resilience.
- (vii) Make sure the industry is ready for interruptions by creating and updating contingency plans for diverse scenarios.

(viii) Develop stronger government partnerships to enable industry-specific support, timely information exchange, and coordinated crisis response.

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