

The Impact of COVID-19 on Business Performance of Logistics Firms in Cambodia

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INTRODUCTION

Cambodia's exports of goods and services outpaced the country's economic growth and outperformed global export growth over the past years. Exports of goods and services increased dramatically during the past years, from about US\$4.2 billion in 2009 to US\$14.7 billion in 2019 (O'Neill, 2021). The solid export growth resulted in improved livelihoods for Cambodian households. Trade is a medium for productivity-led growth in a small economy like Cambodia. It gives companies access to wider markets and boosts foreign direct investment. But the COVID-19 pandemic had badly affected the freight forwarding services in Cambodia, and particularly logistics firms, which are involved in the movement, storage, and flow of goods, have been directly affected by the global pandemic. For Cambodia, there was no remarkable gains in freight transport in the early 2020. According to the Cambodia Freight Forwarders Association (CFFA), COVID-19 pandemic has seriously hurt Cambodian logistic providers, with 10–15 percent will soon be bankrupt (VietnamPlus, 2020). As stated by the president of CFFA, "the dramatic decrease in buying orders led the traffic of goods and product exports to drop about 70–80 percent. In addition, more than 100 logistics firms have been struggling to survive due to the financial hardship, with an estimated 60 percent fall in revenue" (VietnamPlus, 2020).

Logistics companies connect firms to markets by providing many different services, including transportation, freight forwarding, warehousing and inventory management. They play an important role in global manufacturing, which is complex and multi-locational. For example, Apple inc. uses the components from more than 200 suppliers from many different countries (Ross, 2020). Today's global value chain requires uninterrupted flow of goods between and within the countries. These can be achieved by firms outsourcing their logistics functions to third-party logistics service providers.

Both national and international logistics firms in Cambodia play a crucial role to keep the import and export steady. According to the World Trade Organization, in 2019, while Cambodia had imported US\$20,720 million of products, it had exported US\$14,700 million of products (Groupe Crédit du Nord, 2021). The main imported

products were petroleum oils, fabrics, motor vehicles, parts/accessories for motor vehicles, coals, and the main exported products were garments and rice. There are four main borders for Cambodia to import and export goods; Sihanoukville and Phnom Penh ports are gateways of freight movement, and Bavet and Poipet have more industrial goods (Salpiseh, 2018). In 2019, Cambodia had imported US\$3,161 million and exported US\$6,027 million of services. Despite the presence of COVID-19 pandemic, in 2020, there was an increase of 16.7 percent of export value as compared to 2019, and the top five destinations for exports were the United States, ASEAN countries, China, Japan and the United Kingdom (Ministry of Commerce, 2021).

COVID-19 AND THE LOGISTICS SECTOR

Supply chains can be extremely complicated, with several stages ranging from the provision of intermediate goods to the consumption of final goods in consumer markets. Supply chain disruption may occur due to natural calamities and/or human made disaster. Globally many disasters occurred in the past. For example, the tsunami in Japan – A magnitude-9 earthquake shook northeastern Japan, unleashing a savage tsunami (Oskin, 2017). Similarly, the outbreak of transmittable disease, Coronavirus (COVID-19) has brought a global disaster not only to human lives, but also to economic activities like manufacturing operations, supply chain and logistics (Ivanov & Dolgui, 2020). COVID-19 also impacted the automotive, tourism, aviation, oil, construction, telecom, healthcare and food industries (Chamola *et al.*, 2020).

The impact of COVID-19 was first felt in China due to its contribution to global manufacturing. Wuhan, the epicenter of the pandemic has more than 200 of Fortune Global 500 firms' presence (Deloittee, 2020). Manufacturing disruptions in China have rippled through global supply chains. China's main sea ports, cargo was backlogged, travel constraints led to a lack of truck drivers picking up shipments (DHL, 2020), and ocean freights cancelled sailings (MSC, 2020). As China provides the bulk of the components as well as major subsystems to manufacturers globally, the resulting shortage of components from China impacted manufacturing operations overseas. Industries from all over the world including automotive, electronic, pharmaceuticals as well as consumer goods, were affected (Betti & Ni, 2020).

As globalization has been embraced, so did supply chains. Supply chains are now spread through nations, territories, and continents (Tse *et al.*, 2016), and as they grow and become more complex, the possibility of a supply disruption grows (Tang & Musa, 2011). Every nation deals with the pandemic that cause by COVID-19, including the loss of life and the new way of living that we have seen since April 2020. Due to the reliance of domestic firms on foreign firms for raw materials, the manufacturing sector has been seriously impacted during the pandemic period.

The virus outbreaks all over the world causes lockdown and border closure that restricted the movement of goods. Additionally, safety measures such as social distancing was introduced to ensure the safety of workers. For example, in European Union, trucks formed 37-mile-long lines on the A4 highway after Poland closed its border with Germany in mid-March 2020 (Ankel, 2020). The impact of pandemic on freight capacity in three key global transportation areas such as ocean, air, and land were seriously felt.

Ocean Freight

The situation for ocean freight has also been compromised due to the pandemic. Total container volume from Chinese ports dropped by 10.1 percent at the beginning of the outbreak (DHL, 2020). Limitations of ocean freight around the world, impacted both key exporter such as Brazil, China, India, Bangladesh and Mexico as well as importer like the European Union (Agility, 2020). Interestingly, when the factories were closed in China during their period of mass quarantine, there was a drastic drop in shipments leaving the country. In reaction to this situation, many ocean carriers reduced their capacity by not sending out as many liners, which led to a dearth of containers in Europe (Shepard, 2020). According to DHL (2020), poor demands continue to affect route between Asia and Europe, USA and Latin America.

The COVID-19 pandemic also impacted Cambodia's export through ocean freight. As commented by the Cambodia Logistics Association (CLA) president, "the volume in goods transport now is in the ballpark of just 30-40 percent of pre-COVID figures. Freight transport activity is only slightly up from three to four months ago. Even though the COVID-19 situation has improved, goods deliveries at my company have not gone back up, as shipping volumes remain low compared to before the beginning of the COVID-19 outbreak" (Pisci, 2020).

Air Freight

According to the International Civil Aviation Organization (ICAO), for the year 2020 compared to 2019, there was an overall reduction of 50 percent of seats offered by airlines leading to a reduction of 2,699 million passengers (-60 percent). This accumulates approximately US\$371 billion loss of gross passenger operating revenues of airlines (Hasegawa, 2021). Further, the COVID-19 impact on world scheduled passenger traffic for the year 2021 (preliminary estimates) compared to 2019 shows an overall reduction of 40 to 41 percent of seats offered by airlines which will lead to an overall reduction of 2,229 to 2,277 million passengers (-50 to -51 percent). This will bring approximately US\$327 to US\$333 billion loss of gross passenger operating revenues of airlines (Hasegawa, 2021). However, as shippers and government turn to

air cargo for essential goods, air freight rates have increased (Shepard, 2020). Many air service providers utilized their passenger aircraft for cargo operations to deliver essential cargo to those who are affected by the virus and to brave medical officers who are fighting off the pandemic at the front line. Such operations also help drive the global supply chain forward by answering the continually growing demand for air freight services. There are other airlines who adapted the situation and temporarily converted their passenger aircraft to freighters, to keep their business running (Vorakamnueng, 2020). In case of Cambodia, its domestic and international air freight volume was reduced by about 30 percent in the first half of 2020 compared to 2019, and the Kingdom served 1.95 million air passengers during the period, tumbling 67.5 per cent from the year-ago period (Vireak, 2020).

Land Freight

Land transportation was generally remained functional except for some countries under severe lockdown. Trucking capacity was strained because of additional demand for their services, especially food and medical supply transportation under lockdown, leading to higher rates (Ames, 2020). Other economic sectors that require land transportation such as manufacturing did not run at full capacity due to lockdown. As a result, land freight rates had fallen in some countries (Clevenger, 2020). According to the founder and chief executive officer of Trucker Tools LLC, a Reston, Virginia-based logistics technology provider, the impact of the pandemic has created massive challenges in freight yards and warehouses, where many facilities struggling with coronavirus conditions have cut their staffing levels and reduced operating hours at loading and receiving docks (Ames, 2020). The Cambodian land transportation between neighboring countries were disrupted for a short period of time and it went back to normal with some additional rules (Bangkok Post, 2020).

Impact of Supply Chain Disruptions and Lockdowns on Freight Forwarding Firms

Without any clear timeline for the restrictions to end during the pandemic, it was anticipated that operational limitations will lead to distribution delays, congestion, and higher freight prices. However, not all sectors were affected equally. E-commerce businesses were seeing increased activity as customers opted for essentials to be bought online (Bhattacharjee *et al.*, 2020). But other sectors were badly affected such as auto and consumer goods. Of course, low fuel price should provide some relief to the transportation industries (Reinicke, 2020).

The lockdown has brought the entire domestic supply chain to a grinding halt in many economies around the world. According to the chief economist of Dun and

Bradstreet India, from the factory gate to the warehouse, or from the warehouse to the end users, the entire supply chain in India is severely jeopardized (Khan, 2020). More badly the small trucking businesses were affected due to the lack of backup or contingency plan. Contrary to that, top logistics businesses experienced a strong impact. However, in April 2020, DHL and CEVA logistics declared *Force Majeure* – a clause that allows contracts to be null or void (Gillis, 2020). By declaring force majeure, CEVA Logistics said “it reserves the right to modify all or part of its services, to change its working procedures and any previously agreed rates and prices, to levy surcharges, or otherwise to take any measures necessary to adjust its business operations and its obligations to its customers, suppliers and other stakeholders, in response to the prevailing circumstances.”

Response to the Crisis

Governments in many countries responded to the crisis by designating ports, shipping and trucking services as essential and exempted them from lockdown (The Hindu Business Line, 2020). Although many airports were closed to passenger flights but cargo flights were allowed to operate.

Logistics companies have responded to this crisis in many different ways. They have introduced new safety protocols to protect their staffs’ health by having social distancing, disinfecting work areas and also providing protective gears (Davis, 2020). Many companies were started using other alternatives to their current transport system. Airlines had converted their passenger aircraft to cargo. As per the announcement in mid-March 2020, Korean airline transported agricultural and medical supplies to China and Vietnam (Pozzi, 2020).

In the light of the global supply chain disruptions, we intend to examine the impact of COVID-19 on the operations of international freight forwarding firms in Cambodia. Therefore, during the pandemic, with the lockdown of most business activities and restrictions of movement, this chapter intends to explore the business performance of international freight forwarding firms in Cambodia which includes both air and ocean freights.

STUDY METHODOLOGY

The study used a descriptive research design to collect primary data from the purposively selected four international freight forwarding firms in Cambodia. Approximately 130 freight forwarding firms are actively involved in business in the Kingdom, and among them, 32 firms are international. Data relating to revenues of the selected four firms (13 percent of the total international firms) over the period

2017 to 2020 including their operating conditions and challenges were gathered through a personal interview with the company officials. While all the study firms have their services in ocean freight, only two of them handle air freight operations. To maintain confidentiality, instead of mentioning the real names of the firms in the study, we analyzed the collected data of the firms by specifying them as firm A, B, C and D.

In addition to the primary data, relevant secondary data were collected from the official statistics of the Royal Government of Cambodia (RGC), Asian Development Bank (ADB), World Bank and International Monetary Fund (IMF) including the local news websites.

DATA ANALYSIS AND DISCUSSION

Cambodia's gross domestic product (GDP) growth rates for the year 2020 and 2021, both estimated and forecasted, before and after the COVID-19 are shown in Figure 5.1 and 5.2 respectively. Prior to the COVID-19 pandemic, in 2019, Cambodia's economy was growing at a rate of 7.1 percent (World Bank, 2020). However, as shown in Figure 5.2, it has been estimated by all of the four sources (RGC, ADB, World Bank, and IMF) that the growth rate of the economy in 2020 will dramatically be fallen (negative) after the COVID-19. Among all the sources, for 2020, the highest negative growth rate (-4 percent) of the economy was estimated by the ADB.

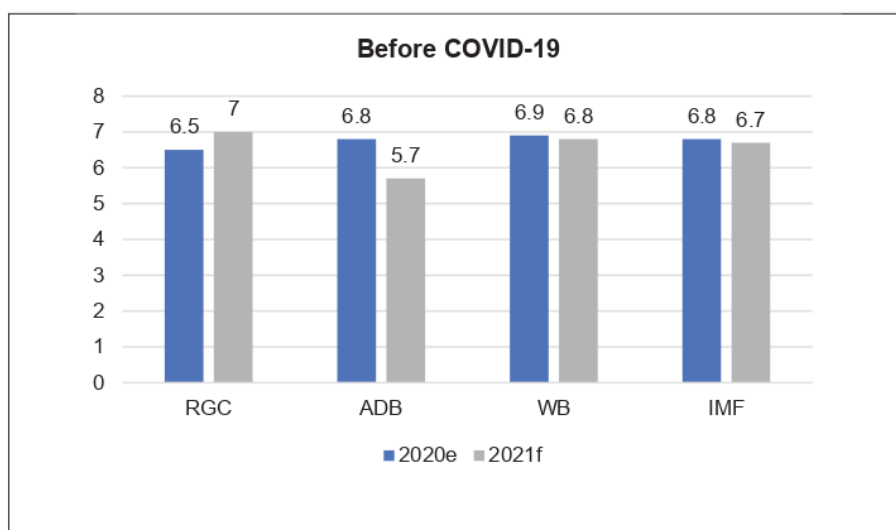


Figure 5.1: Cambodia's GDP Growth Rate (Estimate and Forecast) Before COVID-19

Source: Official Statistics of RGC, ADB, World Bank and IMF, 2020.

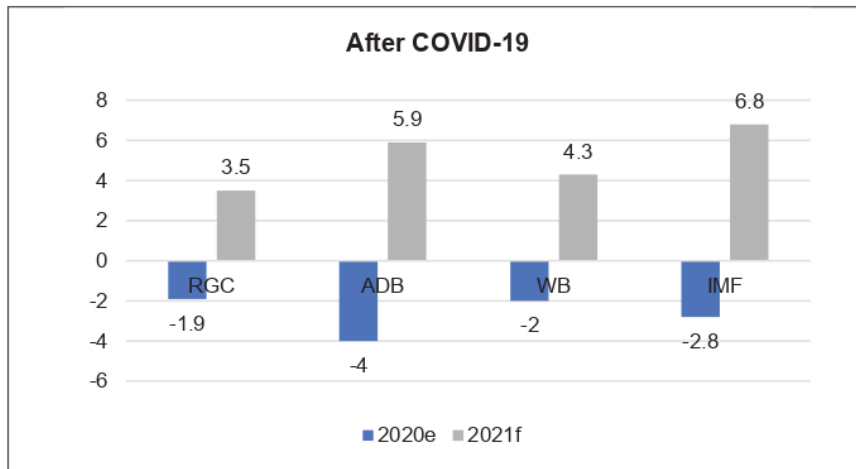


Figure 5.2: Cambodia’s GDP Growth Rate (Estimate and Forecast) After COVID-19
 Source: Official Statistics of RGC, ADB, World Bank and IMF, 2020.

The sectoral contribution to Cambodia’s GDP in 2019 is presented in Figure 5.3. Among the three sectors, the contribution of the service sector to the country’s GDP was the highest. As against the agriculture and industry, in 2019, 38.9 percent of the country’s GDP was contributed by the service sector, which includes, tourism, financial services, information and communication technology (ICT), postal services, transport, logistics, and so on.

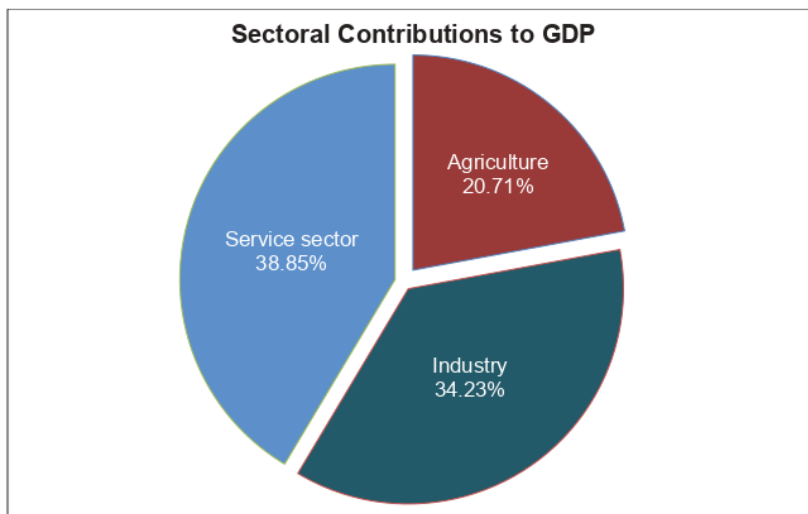


Figure 5.3: Contribution of Different Sectors to Cambodia’s GDP in 2019
 Source: Statista 2020.

Business Performance of the Freight Forwarding Firms in Cambodia

The business performance in ocean freight of the four freight forwarding firms (13 percent of international freight forwarding firms) in Cambodia in terms of number of containers shipped and revenue earned are shown in Table 5.1. As revealed, the number of containers of all firms was drastically reduced in the year 2020 compared to the previous three consecutive years. Though firm- B was one of the major freights forwarding international firms in Cambodia, their number of containers in 2020 was also reduced by more than 61 percent compared to the previous year 2019.

Table 5.1: Number of Containers Shipped and Revenue Earned by Firms Through Ocean Freights

<i>Firm</i>	<i>Year</i>	<i>Number of Containers (TEU: Twenty-foot equivalent unit)</i>	<i>Revenue in Millions (USD)</i>	<i>Percentage Change in Revenue Compared to Previous Year</i>
Firm A	2017	3,142	1.44	–
	2018	3,094	1.67	15.97
	2019	3,471	2.11	26.35
	2020	1,800	1.12	–46.92
Firm B	2017	20,573	84.34	–
	2018	24,324	99.72	18.24
	2019	27,004	110.07	10.38
	2020	10,475	42.94	–60.99
Firm C	2017	1,350	0.57	–
	2018	1,632	0.69	21.05
	2019	1,574	0.66	4.35
	2020	563	0.14	–78.79
Firm D	2017	3,763	1.73	–
	2018	3,542	1.62	6.36
	2019	3,982	1.83	12.96
	2020	1,352	0.62	–66.12

Source: Data collected from freight forwarding firms.

The business performance of all firms in terms of revenue generated was contracted in 2020 compared to 2019, 2018 and 2017. Among all firms under the study, in 2020, the fall in the revenue of the firm - C was the highest (78.79 percent), followed by the firm-D (66.12 percent), firm - B (60.99 percent), and firm - A (46.92 percent). By taking into account the mean revenues of all four firms in different years, we found that there was an increase in revenue by 10.6 percent in 2019 compared to 2018. However, due to the pandemic, in 2020, the firms on an average experienced a fall in revenue of more than 60 percent compared to 2019.

Among the four firms under study, firm A and firm C also handle air freights in addition to ocean freights. Table 5.2 shows their performance in terms of weight of air cargo handled and revenue generated over the period 2017 to 2020. As revealed, compared to 2019, in 2020, firm C’s air cargo weight handled was fallen by 62.4 percent as against a fall of 55 percent of firm - A. Though firm- C enjoyed an increase of 50 percent of its revenue in 2018 over 2017, however, due to the COVID-19 pandemic, the firm had faced a fall of more than 65 percent of its revenue in 2020 compared to the previous year. Likewise, the firm-A also experienced a fall of 46.9 percent of its revenue in 2020 compared to 2019. Considering the mean revenues of both the firms in different years, we found that there was a fall in revenue by 21.1 percent in 2019 compared to 2018, and further a higher percentage fall in average revenue (41.4 percent) was observed in 2020 compared to the previous year.

Table 5.2: Weight of Air Cargo Shipped Through Air Freight and Revenue Earned by Firms

<i>Firm</i>	<i>Year</i>	<i>Weight of Air Cargo (Tons)</i>	<i>Revenue in Millions (USD)</i>	<i>Percentage Change in Revenue Compared to Previous Year</i>
Firm A	2017	1,069	2.16	–
	2018	992	2.25	4.17
	2019	814	1.66	–30.12
	2020	366	1.13	–46.9
Firm C	2017	354	0.46	–
	2018	253	0.69	50.0
	2019	396	0.66	–4.35
	2020	149	0.23	–65.15

Source: Data collected from freight forwarding firms.

The above findings of the study corroborated the findings of other studies in different parts of the world. For example, a study conducted in Poland revealed that while 14 percent of freight forwarding firms were slightly affected due to the global pandemic, 16 percent of them were severely, 21 percent of them moderately, and 49

percent of firms were affected significantly (Klopott, 2020). Thus, the poor performance of the business of the logistics firms was due to the lockdown and other restrictions imposed by the government to control the spread of COVID-19 pandemic.

CONCLUSION

The spread of coronavirus has disrupted the movement of goods worldwide. The operations of freight forwarding firms which handle the movement of goods between countries through ocean, air and land, were suffered due to lockdown, border closure and reduced demand for shipping. In this regard, we made an attempt to assess the business performance of the selected international freight forwarding firms in Cambodia in the midst of COVID-19 pandemic.

Our study reveals a noticeable and severe impact of the COVID-19 pandemic on the business performance of the international freight forwarding firms in Cambodia. Most of them while performing well prior to the emergence of COVID-19, their businesses were disrupted due to the reduced economic activities around the world. We found a significant decline in the revenues and frequency of shipping of all firms in both ocean and air freights. However, these firms revealed that they are quite optimistic with regard to the resumption of their business operations when the pandemic will be under control.

We believe that managers of logistics firms garnered invaluable experience during the COVID-19 pandemic. As such, based on the lessons learned, taking the opportunity, it is to reconfigure the business and operating models for a new reality. The transition to a “next normal” will require the managers to reinvent their business models, even as they continue to respond effectively to the aftershocks of the crisis (Hatami *et al.*, 2020).

Our study is not free from certain limitations. It was quite challenging to gather relevant information from the logistics firms as most of them were not willing and ready to share. In the midst of pandemic, it was quite difficult to find the active freights forwarding firms in Cambodia. Based on the willingness of the firms, we only surveyed and covered 13 percent of the international freight forwarding firms in the country. In future, other indicators of business performance and a larger sample size comprising of both domestic and international freight forwarding firms could be considered for study.

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