SUPPLY CHAINS RECOVERY CHALLENGESIN JORDAN

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Abstract - The COVID-19 pandemic has revealed the weakness of global supply chains arising from raw material scarcity, production and transportation disruption, and social distancing. Firms need to carefully anticipate the difficulties during recovery and formulate appropriate strategies to ensure the survival of their businesses and supply chains. To enhance awareness of the issues, this research aims to identify and model recovery challenges in the context of importers companies in City of Aqaba- Jordan . the research implemented an expert survey to identify supply chain recovery challenges due to the COVID-19 pandemic ,Data for this research were collected from importer companies and government sectors in the city of Aqaba .Choosing an emerging economy as the study context is important because the findings can provide valuable insights to supply chain practitioners in this region , and this the first study to focus on the port of Aqaba as of lone and main port that supplies all goods to Jordan .

Keywords - Supply , Supply Chains .

I. INTRODUCTION

Business organizations have faced huge challenges due to unprecedented disease outbreaks in recent decades. The scope of the challenges faced by these organizations largely depends on the severity of the outbreaks in question. A widespread public health incident such as an epidemic or pandemic can have substantial negative impacts on businesses and supply chains, including reducing their efficiency and performance (Guan et al., 2020, Ivanov, 2020a, Sodhi, 2016), and propagating disruptions across the supply chains (known as ripple effects) that affect their resilience and sustainability (Ivanov, 2020b, Ivanov and Dolgui, 2020a).

Supply chains have encountered many severe disease outbreaks in the recent past; thus far, the World Health Organization (WHO) reported 1438 epidemics just between 2011 and 2018 (Hudecheck et al., 2020). However, the current COVID-19 pandemic is unique. It has had even more severe, diversified, and dynamic impacts than that of previous epidemic outbreaks such as the 2003 SARS epidemic or the 2009 H1N1 epidemic (Haren and Simchi-Levi, 2020, Koonin, 2020).

A report published by Fortune magazine on 21 February 2020, before the WHO reclassified the COVID-19 outbreak as a pandemic on 11 March 2020, revealed that due to the COVID-19 pandemic, 94% of the Fortune 1000 companies were facing disruption in their supply chains (Fortune, 2020). Moreover, unlike other previous outbreaks, this pandemic has impacted all the nodes (supply chain members) and edges (ties) in a supply chain simultaneously (Gunessee and Subramanian, 2020, Paul and Chowdhury, 2020a); hence, the flow of the supply chain has been disrupted substantially. For example, the demand for necessary items such as personal protective equipment (PPE), ventilators, and dried and canned foods has increased. Meanwhile, supply, transportation, and manufacturing face numerous challenges that reduce their capacities. These include border closures, lockdown in the supply market, interruption in vehicle movements and international trade, labor shortage, and the maintaining of physical distance in manufacturing facilities (Paul and Chowdhury, 2020a, Amankwah-Amoah, 2020b).

Due to these multidimensional impacts on supply chains, along with other economic and financial challenges (Dontoh et al., 2020), the pandemic is likely to have a severe effect on world international trade. For example, the world trade organization (WTO) announced that world trade may decline by 13–32% in 2020 due to the COVID-19 crisis (WTO, 2020).

II. NEED OF THE STUDY

The aim of this study is to focus on recovery challenges in the context of government sectors and importers companies in the City of Aqaba- Jordan and provide a vision for decision-makers to develop plans and strategies in up normal situations or crises. We in Jordan need studies and field tours to see the problems and challenges faced by the governmental and private sectors and crisis management processes in case of any pandemic or crisis in the field of supply chains and recovery challenges .

The port contains the Aqaba container terminal (ACT), Jordan's only container port, and the second-busiest facility on the Red Sea by container volume. The ACT is a logistics hub and an important part of the Jordanian economy.[4] It is the primary gateway for the Jordanian market, and a crucial transit point for cargo moving between countries in the region.(

"Aqaba Container Terminal's CEO Jeppe Jensen harboring ambitions"

III. LITERATURE REVIEW

COVID-19 has had a disproportionate impact on individuals at the base of the economic pyramid, with the crisis expected to reverse many of the gains made in reducing global poverty over the past two decades. Firms can play a substantial role in mitigating that reversal by ensuring that their products and services are accessible to low-income populations and the most vulnerable in particular. While some businesses have shown agility in enhancing the inclusiveness of their business models and operations, much more can be done, and on a wider scale. Following the successes of pioneer firms in adapting their communications, distribution, and pricing and payment modalities, among others, other firms may follow suit (, International Finance Corporation. 2021)

Supply chain risk management has become an increasingly important topic in academic research. Literature on this topic introduces proactive and reactive policies for effective supply chain risk management. Proactive policies are formulated to mitigate the probability of occurrence of risk events (Chen et al., 2015, Chowdhury et al., 2019, Scholten et al., 2014, Sreedevi and Saranga,) Developing strategies for recovering from a major outbreak has become critical for the long-term survival of supply chains. Yet, surprisingly, the extant literature on major epidemic and pandemic outbreaks mostly considers humanitarian supply chain issues. There is a lack of studies on how traditional commercial supply chains can quickly recover from epidemic or pandemic outbreaks (Clarke & Boersma, 2020a)

Formulating recovery strategies to return to normal or better operational states after catastrophic events is vital to rapid recovery and survival (Ponomarov& Holcomb, 2009) . therefore , developing strategies for recovering from a major outbreak has become critical for the long-term survival of supply chains. Yet, surprisingly, the extant literature on major epidemic and pandemic outbreaks mostly considers humanitarian supply chain issues. There is a lack of studies on how traditional commercial supply chains can quickly recover from epidemic or pandemic outbreaks (Clarke & Boersma, 2020a).

Employee and community well-being can be impacted by COVID-19 gender-based violence risks. These risks have long-term negative consequences for people, their families, communities, and businesses. Those who are directly impacted may be reluctant to report the abuse because of the heightened power differential between victims and perpetrators of abuse during this time and because of reduced access to support services or mobility restrictions. It is important that employers address these risks by encouraging all employees, and especially bystanders to abuse, to raise any issues and report incidents they witness or hear about. (, International Finance Corporation. 2021)

IV. METHODS

Data collection used semi-structured interviews with the government sectors and import companies managers. The sample was taken from interviewees chosen from 12 government sectors and import companies managers using self-selection sampling. The managers were interviewed individually and each interview took about thirty to forty minutes. The questions included both open–ended and some close-ended questions within the pre-determined three aspects of the research: Supply chains recovery challenges from covid-19 pandemic in Aqaba city as main Port of Jordan; the objectives of explorativeapproach; limitations and obstacles preventing the proper Data collection techniques. (Naseem Twaissi , Jebril A. Alhelalat ,2015)

It was stated in the research methods references that there is no standardized approach to the analysis of qualitative data; however, there are many qualitative research traditions and approaches resulting in different strategies that deal with the collected data (Saunders, Lewis & Thornhill, 2003). While different approaches can be combined, there is an emphasis on thematic analysis approach as the most appropriate for using in such research. Thematic analysis focuses on the content of the speech; hence, the content is considered rather than the form (Riessman, 2004).

The qualitative data collected through the interviews was processed and analyzed starting with listening carefully to the tapes, transcribing each participant's response on a separate paper. Processing and analysing interviews normally takes time due to the need for careful transcription, and repeatedly reading and re-reading (Drever, 1995). Therefore, accurate reading was performed in order to identify the topic area related to the objective of the study. Then, all responses to the same question were put together and re-written on the same paper so that all the answers to a particular question could be classified together. Categories related to the research objectives were developed and relevant data was placed under each category. Then, the transcribed data was described in terms of the topics or categories and quotes were used for illustration . (Naseem Twaissi , Jebril A. Alhelalat,2015)

V. RESULTS AND DISCUSSION

The study found that eight companies in the city of Aqaba faced difficulties in transporting goods from

the country of origin due to high demands of containers reservations. Most of applicants found that The price of sea freight is significantly higher than the price of the goods . Four companies faced delays in the supply of materials as a result of closures and employee disruption. See table1

Name of the recovery challenges	Number of participant	Percentage
1-Difficulties in transporting goods from the country of origin due to high demands of containers reservations.	6	78
2- The price of sea freight is significantly high than the price of goods ..	12	100
3- Delays in the supply of materials	3	42.3
4- Bankruptcy of supply chain partners .	2	14
5 – Bureaucracy authorities delay	7	75

Table 1 - Mean score for the identified recovery challenges

Due to the length of this crisis, companies are likely to suffer for more extended periods. As a result, many firms might go bankrupt from the impact of COVID-19 which will create difficulties in allocating funds and resources to implement recovery strategies.A recent review article (Queiroz eta l., 2020) also mentions that pre-allocation of resources for disruption recovery is necessary for a quick resurgence. However, supply chains are generally suffering from resource crises and are likely to face this challenge in the post-COVID-19 period (Xu et al., 2020).

All surveyed enterprises reported challenges in terms of cash flow, reduced demand and supply, and disruption in the value chains as a result of measures responding to COVID-19.- 42 per cent of enterprises indicated that they would be able to continue paying salaries to all workers under existing conditions for less than one month, another 42 percent can pay workers for less than three months. Micro businesses (55 per cent) and small enterprises (44 per cent) indicated that they lacked the means to keep paying salaries, while medium (33 per cent) and larger enterprises (23 per cent) were more likely to be able to pay salaries for an additional (,Tewodros Aragie Kebede, Svein Erik Stave, Maha Kattaa, and Michaela Prokop ,2021)

VI. CONCLUSION

Our aim in this study was to find out the recovery challenges that will bring the supply chains back to normal operations. Through our study, we found that the main recovery challenge factors are the difficulties in transporting goods from the country of origin due to the high demand for container reservations. Therefore, the price of sea freight has been significantly increased .also, delaysin the supply of materials , Bankruptcy of supply chain partners and bureaucracy authorities delay can make speeding up the recovery stage challenging Implication and recommendations.

It is necessary to provide future plans and research in anticipation of any pandemic or crisis that may happen in the future. The authorities in Aqaba overcome all difficulties that they encountered in the transportation and clearance system and solved their problems without complications or delays. Many sectors in Jordan have faced obstacles including food and medical manufacturers and those sectors need more research done on them.

This study and its results are important in the stages of logistics operations. The results assists decision makers by providing a list of potential recovery challenges they may face during and after the COVID-19 pandemic . Solutions for dealing with pandemics in the future should have computerized programs and systems that can help any sector adapt in handling such exceptional circumstances. There also needs to be a focus on developing administrative instructions and rapid procedures to deal with future pandemics. Every firm that is working in supply chains must have alternative plans and provide extra space for storage and warehouses in addition to encouraging workers to work from home which can help recovery in some cases

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