

A survey on the effect of supply chain disruption on Canadian economy

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CHRONICLE

ABSTRACT

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During the past two years, Canadian economy was on hold since there were many businesses closed due to COVID-19 pandemic. Many business owners decided to ask their employees to work from their homes and working in distance created some troubles for many clients. Businesses asked Canada post to deliver their orders. As a result, Canada post was met with huge orders where most of them were delivered late. It is estimated that supply chain disruption has hurt Canadian economy, significantly. This paper surveys the effects of supply chain disruption on Canadian economy.

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1. Introduction

The COVID-19 changed the face of the Canadian economy. Business owners faced many challenges which did not exist for such a long time and workers were involved with problematic issues. As the pandemic spread more, more people were infected, and more businesses were interrupted. The shortage of labor created much trouble for the economy and the interruption in immigration worsened the situation. Many orders were delayed or cancelled, which increased the cost of services across the country. The economy had not been prepared for such interruption and had not planned on how to deal with it. As the time passed, more and more businesses found how to deal with difficulties. Thanks to significant efforts of biotechnology, most Canadians received vaccines and the community reached a better level of the immune system. However, the problem of supply chain disruption still exists. The problem was that there were a huge number of cargoes and containers piled up overseas waiting for shipment to North America and this could still interrupt business activities in North America. A survey by Canadian Manufacturers and Exporters discovered nine out of ten firms in the sector are struggling with supply chain issues and more than half indicated that the disruptions were having a major or severe impact on their operations. Many experts are calling on the federal government to extend its employment program for businesses and postpone tax hikes. Another survey made by Statistics Canada reported that Canadian manufacturing sectors would be more vulnerable to global shocks as they depend on both foreign suppliers and markets for inputs and sales. The report also indicated that retail and other service industries could be less vulnerable to disruption since they depend more on domestic markets and suppliers. Supply chain disruptions indeed not only suffers from international connectedness in general, but also from a significant reliance on a small number of markets for most exports, as well as a large number of inputs being sourced from a single, or small number of, partner(s)¹.

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¹<https://www.international.gc.ca/trade-commerce/economist-economiste/analysis-analyse/supply-chain-vulnerability.aspx?lang=eng>

2. Supply chain disruption

A supply chain (SC) is associated with the network of organizations, people, information, activities and resources integrating to deliver a product or service to a desired consumer. SC activities are normally involved with the transformation of different resources such as basic or raw materials into a finished product and delivering the same to the end customer. According to Durach et al. (2015), supply chain resilience is “the capacity of a supply chain to persist, adapt, or transform in the face of change”. Whenever all necessary information is available to any existing firm, each company in the SC has the capability to optimize the whole SC rather than to sub-optimize based on local optimization. This may lead to better-planned of entire production and distribution, which could reduce costs and provide a more attractive finished product, leading to more profitable sales and results for the firms involved (Wieland & Handfield, 2010). Incorporating supply chain management (SCM) successfully helps to a new form of tighter competition globally, where competition is not between the companies but rather brings on the competition among various suppliers (Blanchard, 2010). A popular use of idea of resilience to reduce supply chain disruption is to measure the time-to-survive and the time-to-recover of the supply chain, helping identification of weak corners in the entire system (Simchi-Levi et al., 2018). Supply chain collaboration is very necessary these days to reduce the risks which come from the exposure to disruption. SCs could be inherently complex, involving different suppliers, which often operate independently while the SCs remain fragmented, with no shared visibility (Ross, 2006).

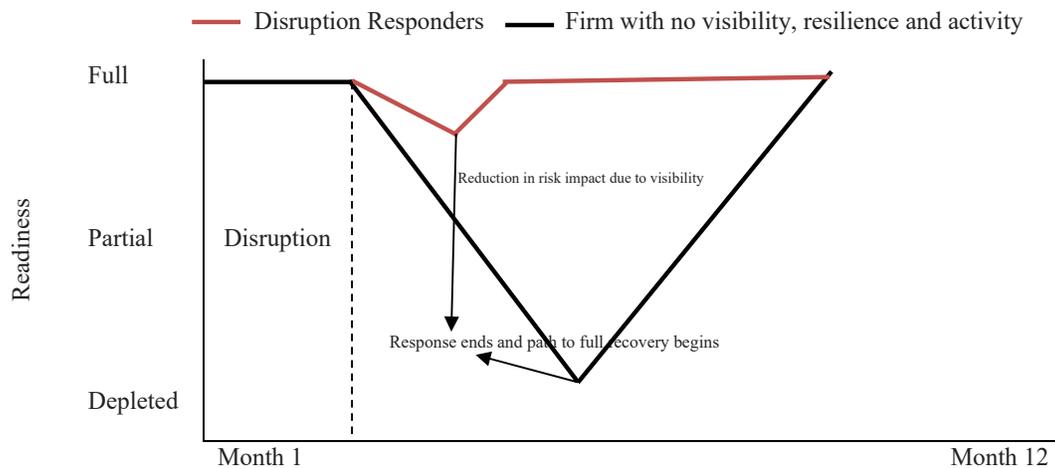


Fig. 1. Supply chain disruptions: Advantage of visibility, resilience and agility

Fig. 1 shows how visibility, resilience and agility could help reduce supply chain disruption. As we can learn, better visibility helps organizations better cope with the outcome of any shortage of raw materials, goods and services.

Corporations require to study different factors for collaboration to be more efficient. The solution requires to help real-time visibility and collaboration across the SC to reach demand and ensure the desired level of quality, quantity and timeliness of supply and reach a more resilient supply chain. In addition, firms must leverage advanced artificial intelligence and analytics combined with an enhanced platform to reach tight communication, information sharing and continuously improved collaboration with multiple levels of suppliers and partners. A best practice solution must also support the workflows and a full range of processes including purchase orders, predicting, capacity and inventory cooperation as well as quality management (Gokhan et al., 2010).

Establishing a real-time shared visibility and process with SC partners helps identification and resolution of the problems. This is performed through a comprehensive platform which uses a reliable framework to enhance visibility, intelligence and collaboration to provide efficient workflows (Oliver & Webber, 1982).

3. Summary

Supply chain disruption has become a major obstacle for business development in the Canadian economy. The disruption is believed as one of the most prominent post-covid issues which must be handled professionally. This issue must be through collaboration of the governments, agencies and business partners. Recently, the minister of transportation of the United States has provided a platform and asked business owners on the exact positions and components of each container they have on the borders. He believes when all participating parties are aware about the goods piled up in the containers, they will be able to better handle any disruptions. Any good scheduling of the shipments may also help business owners to reduce the waiting time of the manufacturers. Today's world needs more cooperation than ever since without cooperation and coordination among different suppliers, it is impossible to reach a lean supply chain management.

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