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Financing and Supply Chain Operations Resilience and Juxtaposing: The Role of Finance in Improving the Supply Chain in the COVID-19 Pandemic Environment

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Abstract
Amidst the renewed quest for supply chain resiliency, finance outgrows its traditional role in B2B; instead, finance position itself to become a more integrated partner in supply chain management activities. Areas such as global trade management and supply chain risk management are fluid areas for finance to flourish, coupled with increasing demands for finance to take a more active role in supply chain management. The global supply chain has experienced several disruptions, such as the COVID-19 pandemic, extreme climate change-induced events, natural disasters, conflict, financial crises, recessions, shortages of raw materials for manufacturing, and macroeconomic imbalances; however, futuristic disruptions are already projected by several stakeholders in the logistics and transport sector. Hence, companies must concentrate on building their resilience to all manner of supply chain disruptions. The initial motive of firm management to increase leverage and engage in financial goods is diminished when the economic dilemma of supply chain value is resolved; by so doing, the internal financial situations could facilitate the advancement of enterprise value.

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1. Introduction

The global supply chain has experienced several disruptions, such as the COVID-19 pandemic, extreme climate change-induced events, natural disasters, conflict, financial crises, recessions, shortages of raw materials for manufacturing, and macroeconomic imbalances; however, futuristic disruptions are already projected by several stakeholders in the logistics and transport sector. Hence, companies must concentrate on building their resilience to all manner of supply chain disruptions. High-level uncertainty is still a worrying factor concerning the unstable nature of countries in Asia, especially a brewing conflict between China and Taiwan. In addition, post-pandemic economic effects also contribute to the instability of the global supply chain. Supply chain leaders are the center of attraction in these trying times, and top-level management is very much dependent on the ability of the chief supply chain officers to keep products flowing in a complex, uncertain, and fast-changing environment. This article borders on fulfilling three significant tranches, namely; a) establishing the nexus between finance and supply chain as well as juxtaposing the role of finance in engendering supply chain resilience, and b) the role of financial service innovations in improving the supply chain.

Amidst the renewed quest for supply chain resiliency, finance outgrows its traditional role in B2B; instead, finance position itself to become a more integrated partner in supply chain management activities. Areas such as global trade management and supply chain risk management are fluid areas for finance to flourish, coupled with increasing demands for finance to take a more active role in supply chain management. The rationale behind erecting resilient supply chains is to allow business entities to mitigate risk through forecasting and handling arising issues proactively and, more importantly, adapting to the disruptions without a considerable spike in operating costs which is disastrous to the state of company revenues. There are specific dimensions on which companies can focus resiliency in the supply chain to enable them to control, collaborate and act on disruptions. The six dimensions are stated thus; visibility, governance, manufacturing, suppliers, distribution, demand sensing, and response.

2. Prior Studies

The first dimension deals decisively with monitoring the supply chain and diagnosing any issues, which translates to a brief report of the current state of the supply chain for a timely response. The second dimension measures the degree to which a firm prioritizes and enforces risk management and resiliency within and externally with suppliers. The next trio is quite fundamental and key to supply chain continuity. Historically, issues associated with the manufacturing dimension have halted the free flow in the supply chain, especially from Asian manufacturers. The manufacturing dimension is purely concerned with the resilience of the manufacturing architecture within the firm and its product.

On the other hand, the suppliers' dimension reiterates the suppliers and their level of readiness to provide products, relief materials, and other merchandise in times of disruption or varying changes in the level of demand. The distribution dimension is closely connected to the manufacturing and suppliers' dimensions. The resilience of the network through which finished products are transported to the final consumer lies in the hands of the suppliers and logistics representatives. In contrast, the resilience of the network through which material inputs or raw materials are delivered to manufacturing facilities is direly important because, in times past, a shortage of coal to manufacturing plants in China halted production, causing a widespread clog in the global supply chain. The last dimension can be captured as internally grown capabilities which can serve as a competitive advantage for innovative firms. Hence, the ability to sense, predict and react to events and disruptions in the supply chain may be the distinguishing factor of survival and continuity amongst firms operating in the same industry and location. For example, after a ghastly hurricane, eight days after, some business entities operate in a manner that does not communicate the recent disruption in the supply chain, whereas other firms are closed down. This differentiates firms who invested in building supply chain resilience using multiple techniques and strategies. The next thought that comes into mind is the role of finance in boosting supply chain resilience.

Some financial experts posit that the issues navigate around account receivables and payables, while some stakeholders are worried about corporate liquidity, capital position, and creditworthiness. Asides from the automation of the supply chain using IoT, blockchain, and other varieties of artificial intelligence, the issue of traditional payment settlements in international trade causes disharmony between suppliers and companies in the recipient destination. Considering the state of the supply chain at the moment, past recorded disruptions, and projected macroeconomic imbalances, suppliers desire early payments to validate orders. Small companies may not have the required financial strength and a whole range of documentation to seek a third-party financial institution to provide the financing ahead of time to the suppliers on behalf of the buying company. Sometimes, the supplier may sell all the receivables to a third-party factoring firm at a discount to remain liquid. Suppliers sometimes use forwarding contract hedging to protect their deals from exchange rate fluctuation and rising inflation. In another vein, preferably from the treasury management perspective, it is already established in basic accounting and finance for every invoiced amount payable by the company to its suppliers; for the company, it becomes an account payable under the current liability of the balance sheet while for the suppliers it becomes account receivable under the current asset section of the balance sheet. Broadly speaking, suppliers are deeply interested in protecting themselves against known disruptions of any sort and naturally may look to sell their receivables asset to finance working capital to a third-party factoring firm or use it as a security for borrowing from a financial institution. Recently, numerous financial institutions have been providing supply chain financing solutions to ensure smooth payment and timely payment to suppliers to ensure consistency in their working capital thresholds.

Furthermore, on the part of the buying company, the SCF solutions provider helps the buying company adjust to the field challenges, relieving them of tying down a more significant portion of their capital and sometimes shipping costs. The baseline concern for the buying company is the period from when the supply is paid for and when the customer pays for the good in cash or bank transfer. The total period for inventory to turn to cash sets the company back if no aid from a third-party financial institution exists. In the event of this elongated financial trap, the buying company's revenues will remain stagnant, affecting its ability to finance working capital. Asides from the benefit of supply chain finance to the supplier and the company, there is also the role of financial innovation in improving the supply chain, which will be discussed in the succeeding paragraph.

3. The Role of Financial Service Innovations

The supply chain is the backbone of any global economy, linking producers and consumers worldwide and managing the flow of goods and services and the logistics involved in getting things from A to B. In the age of financial service innovation, the supply chain may need to incorporate the necessary innovative apparatus to perceive discharging its roles. Supply chain, in this sense, emphasizes the distributors and suppliers being chosen for their roles in the transfer of products, services, and information flow from suppliers to consumers based on the effectiveness, accessibility, and pricing of those roles. Therefore, supply chain management encompasses a wide range of interconnected processes, from the sourcing of inputs through the distribution of finished products and related services, as well as the collection, analysis, and utilization of data (Demeter & Jenei, 2006). Financial service innovations under the umbrella of financial instruments, financial markets, financial institutions, and financial regulations all work together to ensure that end-users-agents in the supply chain have access to the financial services they need to complete their respective tasks. The monetary system facilitates the distribution of goods and services and the dissemination of relevant information between producers and consumers. As a result, financial innovation is crucial to functioning of the current supply chain processes.

Modern financial innovation is driven by technological innovation (Achieng, Karani, & Tabitha, 2015), which has significantly reshaped the supply chain, service, and product delivery techniques and processes. Internet advances stand tall at the nexus between financial service innovations and improvement in the supply chain; for example, it has united cross-border payment systems and transformed financial products and processes. In another narration, financial service innovation can alleviate the financing difficulties of supply chain processes, reduce economic costs, and thus enhance the level of strategic value creation enterprises. Through leveraging financial innovation, services can: clean and collate massive data in real-time based on low cost and low risk (Gomber et al., 2018); visualize the soft information of enterprises through data visualization; evaluate the supply chain process in its entirety, and significantly reduce the information asymmetry between "financial institutions-business entities" (Kaplan and Luigi 1997). Further, financial institutions today can effectively identify supply chain agents with real development potential (Zhou, Zhu, & Luo, 2022), improve the credit allocation mechanism, and solve the financing problem of the supply chain without relying on traditional metrics like asset scale, collateral, credit, and others. By so doing, supply chain internal production funds grow, quality and efficiency in production are ensured, and the worth of the business grows over time.

4. Improving Supply Chain Operations Financing

Put in another perspective, financial services innovations have created much economic value vis-à-vis the potential to lower the leverage of important emerging businesses, boost financial stability, and ultimately increase the value of companies in the supply chain. Indeed, businesses in the supply chain are viewed by financial institutions as high risk due to their proximity to the consumer. Some businesses may have promising growth opportunities, but they may not be able to fully realize those prospects due to the high cost and time commitment of searching for them. Therefore, these businesses operating in the supply chain are at risk of being financially excluded due to the reluctance of financial institutions to extend credit. There are hidden dangers to business expansion that can be exacerbated when risk-taking companies choose to raise capital through leverage and financial product investments. Finance innovative service, however, with the help of big data technology, internet technology, distributed technology, and blockchain, may pool market resources to enhance the supply chain (Xie et al., 2020); conversely, financial needs can be identified at low cost and low-risk level to technical advantages (Huang, Liou, & Iwaki, 2021).). The initial motive of firm management to increase leverage and engage in financial goods is diminished when the economic dilemma of supply chain value is resolved; by so doing, the internal financial situations could facilitate the advancement of enterprise value.

Financial innovation can aid key supply chains in many ways, including boosting innovation capacities, facilitating digital transformation, and strengthening supply chain value. When given the means to do so, financial innovation through digital finance can increase the number of ways businesses can obtain funding for R&D and other strategic endeavors, including wise investment and supply chain finance. Second, digital finance's inclusion of emerging technologies like big data, artificial intelligence, cloud computing, and blockchain allows for the rapid gathering of massive amounts of data information and the formation of a data warehouse, which can lower the search cost, traceability cost, and certification cost of strategic emerging enterprises while simultaneously increasing their production flexibility, supply chain coordination, risk management and control ability, and other desirable outcomes (Goldfarb and Tucker 2019

5. Conclusion

In conclusion, the supply chain improvement activity of financial innovation carried out by economic actors demands substantial financial backing. The contributions of digital finance as a component of financial innovation are: In the first place, the supply chain can benefit significantly from the advent of financial service innovations. Second, the "funding difficulty," "matching difficulty," and "supervision difficulty" that businesses encounter when seeking external financing are mitigated by the growth potential of financial innovation. Third, as innovative financial services evolve, businesses can better supply chains internally, reducing financing costs and increasing financial flexibility.

Businesses in the supply chain can assure technological advancement by consistently optimizing innovation methods, which include increasing the quality and efficiency of resource utilization. In addition to producing a "technology dividend," the widespread adoption of digital finance in the real economy will increase market competition, boost the subjective initiative of supply chain enterprises to undergo digital transformation, help them overcome the technical bottleneck, spur iterative upgrades, and expand the enterprises' growth potential.

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