

CHAPTER V

CONCLUSION

In this research conclusion on the risk mitigation of the impacts of COVID-19 on supply chain resilience based on the following question in this research: “Which strategies have been performed by the EPC contractors in order to resilience in their supply chain ? Resilience can be defined in many ways, but it is generally the ability to absorb a disruption. In this case, the disruption is COVID-19 in supply chains. Amid the COVID-19 pandemic, supply chains encountered significant shocks in both supply and demand, proving difficult to manage. Escalating demand for specific goods and limited resources resulted in supply shortages, thereby disrupting global production and logistics operations..

To mitigate the impacts of future disruptions, firms ought to broaden and vary their supplier database while localizing their supply networks. Additionally, enterprises need to prioritize openness and clarity across the entirety of their supply chain and initiate a digital overhaul of their supply networks. Furthermore, organizations must seek enhanced adaptability in their supply chains to effectively address shifting demands. Implementation of these actions shall curtail risks within the supply chain, consequently bolstering resilience. In contrast to the historical trajectory of optimizing supply chains primarily for cost efficiency, there should be a paradigm shift towards assigning greater significance to resilience in the optimization strategies of supply chains.

From these studies, it can be concluded that mitigation efforts in supply chain management need to consider various aspects, including material, financial, information, social, and character aspects. Integration of mitigation strategies with good operational management principles can help companies like XYZ improve the resilience and performance of their supply chains overall. In essence, this investigation illuminates the substantial hurdles introduced by the COVID-19 pandemic within the construction sector, emphasizing disruptions in supply chains, financial constraints, and obstacles in information dissemination. It underscores the sector's resilience through proactive risk mitigation strategies and the implementation of safety protocols amidst these unparalleled adversities. Companies or industry have the potential to avert or diminish forthcoming Supply Chain disturbance through the implementation of strategic planning:

1. Enhance Resilience in Supply Chain Management:

To tackle disruptions in the supply chain and material procurement difficulties, EPC construction firms in Indonesia ought to contemplate broadening their material sources, localizing their supply chains, retaining strategic reserves of vital materials, and crafting contingency strategies for alternate supply pathways.

2. Improve Financial Management:

Amid the widespread financial challenges faced by various industries throughout the pandemic, it has become imperative for companies to enhance their financial resilience. This entails optimizing cash flow management, revising payment terms within contracts, and implementing financial strategies to navigate through economic uncertainties.

3. Leverage Technology:

Utilize digital instruments and technologies for optimizing communication, sharing information, and managing projects efficiently. This approach facilitates the resolution of information dissemination hurdles and enhances collaboration among diverse participants in construction projects.

4. Continue Safety Measures:

Implementing safety regulations and reinforcing safety protocols, as gleaned from the pandemic experience, entails mandating all staff members to don medical face masks, conducting body temperature screenings, and enforcing social distancing measures. These measures must persist to ensure the welfare and health of employees.

Mitigation strategy in Supply Chain Resilience

Supply shocks

Supply disruptions primarily resulted from excessive dependence on a limited number of suppliers. By broadening and localizing the supplier base, it is possible to avert or at least diminish supply shocks. Assessment of supplier relationships and analysis of the supply market should focus on enhancing the variety of suppliers.

1. Finding local supplier or local vendor
2. Freezing recruitments,
3. Layoff engineers,
4. Postpone technical advisor from vendor office to Jobsite

Demand shocks

Implementing an effective supplier relationship management system can offer clarity regarding local suppliers possessing the necessary skills to manufacture and enhance products .

1. Emphasis on supply chain visibility,
 2. Increase resilience through stockpile,
 3. Sourcing product substitute
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Transportation requirements and costs	<p>The impact resulted from the presence of numerous suppliers located a considerable distance from the project site.</p> <ol style="list-style-type: none"> 1. Adjust incoterm in procurement / purchase order contract, case from DDP Jobsite changed to EXW vendor warehouse, 2. Change mode of transportation, case from sea freight changed to air freight in order to shorten the delivery
Digital Transformation of Supply Networks	<p>digital transformation of supply chains and information, Conducting from-home coordination meetings</p> <ol style="list-style-type: none"> 1. Virtual meeting 2. Virtual material inspection and QC distribution documents approval and submission

Reducing the impacts of the future supply chain disruption, companies should expand and diversify their supplier database and localise their supply chains. Moreover, organisations should emphasise transparency and visibility within the entire supply chain and start a digital transformation of supply networks. Furthermore, companies should look for more adapting in their supply chains to respond to future change demands. Implementing these measures will reduce risks in the supply chain, which will increase supply chain resilience. Contrary to the trend over the past few decades whereby supply chains are optimised based on (cost) efficiency, the trend should change towards giving resilience a higher weight in the optimisational strategies of supply chains, all the mitigation strategies which have been performed by companies could be applied one by one based on the conditions, however by applying all the strategies were proven by some companies were effective in achieving the supply chain resilience during the pandemic.

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