

Impact of Local-Sourcing versus Global-Sourcing on Supply Chain Resilience during Geopolitical Crises

Vishwash Raj

Logistics Supply Chain Management

Galgotias University,

Greater Noida, India

Abstract— Geopolitical events, ranging from trade conflicts to economic sanctions and border restrictions to military conflict, have triggered major upheavals in global supply chain systems and called for a re-evaluation of sourcing strategies. Local and global sourcing are analyzed against each other's impact on the supply chain resilience in times of geopolitical volatility. The study draws conclusions on the impact of these sourcing models on continuity of operations, procurement efficiency, supplier reliability, transportation stability and adaptability of organisations in uncertain political and economic environments. The structured questionnaire was used and the quantitative research methodology was adopted with the professional supply chain management, procurement, logistics and business operation participants. The results suggest that local-sourcing offers better responsiveness, lower transportation dependency, and greater operational stability in the time of geo-political disruption, while global-sourcing offers cost benefits but with greater exposure to international risks and supply chain vulnerability. The study ultimately finds that diversified and hybrid sourcing strategies can substantially increase the strategic flexibility and long-term resilience of the supply chain.

Keywords— Supply Chain Resilience, Local-Sourcing, Global-Sourcing, Geopolitical Crises, Procurement Strategy, Operational Continuity, Supply Chain Risk Management, Logistics Disruptions, Strategic Sourcing, Business Stability.

I. INTRODUCTION

A. Background of the Study

Its modern global economy relies significantly on interrelated systems of supply that make it possible for companies to acquire raw materials, produce goods, and sell them on international markets. With the advent of globalization, companies have been more interested in utilizing complex sourcing strategies by integrating suppliers from various countries in different locations for the purpose of cost efficiency, flexibility of production and the obtaining of competitive advantage. Simultaneously, the surge in geopolitical instability has heightened risks and uncertainty in the operation of modern supply chains. Internationally, trade wars, economic sanctions, border restrictions, military conflicts and diplomatic tension have affected transportation systems, procurement operations and network of suppliers across industries. Such events have illustrated the fragility of worldwide dispersed sourcing methods, and further concentrated organizational efforts on the topic of supply chain resilience. Businesses are, therefore, reassessing the impact of local/st. global-sourcing on the continuity and stability of their operations in times of geopolitical crises.

B. Statement of the Problem

Geopolitical disruptions impacting procurement, transport, stock continuity and supplier reliability are becoming more of an issue for organisations working in global value chains. Global-sourcing can reduce production costs and supplier base exposure, but can also leave companies more vulnerable to

international instability and trade restrictions. Local-sourcing, on the other hand, can offer better action and supply control, but it might also be more expensive and there may be fewer suppliers. Therefore, many organisations struggle with how to decide which sourcing strategy will be more resilient during geopolitical crises. Local-sourcing versus global-sourcing is not well understood, leaving strategic uncertainty for companies trying to keep the business going through periods of political and economic disruptions.

C. Objectives of the Study

To discuss how geopolitical crises affect supply chain operations.

To analyze the role of local-sourcing in improving supply chain resilience.

To assess global-sourcing effectiveness in times of geopolitical turbulence.

To compare local-sourcing and global-sourcing in terms of operational continuity and risk exposure.

D. Research Questions

So what happens to modern supply chain systems during crisis because of geopolitical factors?

What impact does local-sourcing have on supply chain resilience during disruptions?

How can global-sourcing affect operational continuity in the time of geopolitical uncertainty?

Which strategy gives more resilience in the time of geopolitical crisis?

E. Significance of the Study

The findings are of importance for the understanding of sourcing strategies and supply chain resilience in situations of uncertain geopolitical conditions. The findings can guide organizations to create effective procurement systems that successfully reduce operational disruptions and enhance long-term business sustainability. The study can also help supply chain managers, logistics practitioners, policy makers and procurement executives implement strategic sourcing choices during times of geopolitical uncertainty.

F. Scope and Limitations

This study aims at investigating how local sourcing and global sourcing affect the supply chain resilience in times of geopolitical crises. The studies mainly take into account supplier's reliability, transportation stability, procurement efficiency and operation continuity. The study is restricted to gathering questionnaire responses from selected professionals who are associated with Supply Chain/Procurement operations. There are some potential limitations for generalized

applicability since the main thrust of research is perceptual in nature and driven by limited sample.

II. LITERATURE REVIEW

Today's global business activities are becoming more complicated, and supply chain management has become a strategic activity in today's companies. In every sector of industry, companies rely on extensive supplier networks, global logistics, outsourcing concepts and cross-border procurement to remain competitive and efficient. Firms could leverage globalization to lower production costs, tap specialized resources and enhance market access through "global sourcing. Meanwhile, international geopolitical uncertainty has highlighted the fragility of globally distributed systems of supply chains. Shipment routes and procurement processes, the continuity of inventories and supplier relationships throughout global markets have been affected repeatedly by trade wars, economic sanctions, military conflict, diplomacy, borders, or political uncertainty. The disruptions have spurred managerial interest in a supply chain's ability to predict, react to, adjust to, and rebound from the unpredictable, executable, and recoverable during operations to deliver continuity and stability, also known as "supply chain resilience. The disruptions have brought a new focus on management to supply chain resilience—a concept that delves into the ability of an organization to anticipate, react to, adjust to and recover from disruptions, actions and activities to assure continuity and stability. Existing research on supply chain resilience identifies that companies need to shift their thinking from sourcing at the lowest cost to practices that carry resilience and can effectively reduce risk exposure during unpredictable geopolitical environments. Local Sourcing continues to gain significance as a resilience strategy as it increases operational flexibility while minimizing transportation risk and lead times, with the geographical proximity fostering better supplier coordination. Similarly, those that rely on regional supplier networks tend to be less reliant on customs processes and international supply chains, which can help them respond faster in situations of disruption. Local procurement systems also give better visibility into the supply chain, better communication efficiency and better operations control – which are paramount during uncertainty. Conversely, global-sourcing offers numerous benefits to lower production costs, diversify suppliers, specialize in technology, and access overseas markets. Despite the need for greater speed and agility, many multinational organisations are still using globally distributed sourcing structures because of cost competitiveness and economies of scale. Yet, the literature constantly reports that the global sourcing enhances the threat to continuity of operations during geopolitical crises since the international procurement systems rely heavily on stability of the diplomatic relationship, transportation infrastructure, trade agreements, and regulatory consistency. When global markets are disrupted in one country or region, it can have ripple effects throughout supply chains, leading to disruptions and delays in shipping, stock shortages, higher operating costs, and supplier uncertainty. In the current geo-political landscape, the need for diversified sourcing arrangements with a mix of local and global procurement systems has also been highlighted further. In today's world of supply chain management, resilience, adaptability and the continuity of operations are all equally as important as cost efficiency. The lessons from the literature, however, indicate that a reorientation of sourcing and that organizations need to change their sourcing strategies into operational structures that aim to increase their resilience

against geopolitical shocks in order to ensure both the continuity and long-term success of their business operations.

III. RESEARCH METHODOLOGY

Research methodology can be defined as a systematic solution taken up for collecting, organising, analyzing, and interpreting information for accomplishing the target of a research study. The current study looks at the effects of local-sourcing and global-sourcing in supply chain resilience during geopolitical crisis. With the rise of geopolitical uncertainty, economic sanctions, transportation, trade wars, and political uncertainty in modern supply chain systems, a structured methodological approach had to be sought in order to assess organizational perceptions and sourcing practices in such an uncertain global environment. The explanation of this was as a result of the study employed a descriptive and analytical research design. The descriptive aspect of the research was used to systematically present respondent opinions regarding geopolitical disruptions, sourcing strategies, operational continuity, supplier reliability, and transportation stability. The analytical part was applied to compare local-sourcing and global-sourcing approaches in terms of resilience capability and risk exposure. The research was chosen to be quantitative as the data collected via questionnaires used for the survey could be analyzed numerically using methods such as percentage analysis, tabular presentation, and frequency and graphical interpretation. The study was cross sectional, that is, data was obtained from respondents at one point in time, not over several periods of operation. Majority of the data obtained for this study came from primary sources that is, structured questionnaires sent to professionals that play a significant role in procurement management, logistics coordination, sourcing, warehouses and business management. The questionnaire method was chosen because it offers a rapid, standardized approach to gathering responses from several individuals at a relatively brief timeframe while securing consistent and comparable data. Demographic questions included asking what age bracket, professional role and levels of experience the individual had along with research questions that explored geopolitical disruptions, sourcing preferences, challenges of operating in the market, risks associated with transportation and the performance of resilience. The questions were most often framed in multiple choice and likert scale for quantitative analysis and interpretation. Secondary data also was used to augment the study's theoretical knowledge and conceptualization. Academic journals, industry reports, books, supply chain studies, and international business publications related to sourcing strategy, geopolitical risk management and supply chain resilience were the sources of secondary information. The study target population included professionals related to the supply chain operations, the procurement functions, logistics management and sourcing decision-making activities. The respondents were supply chain managers, procurement executives, logistics coordinator, operations manager and business analysts from manufacturing firms, retail organisations, logistics companies and import export organisations. These respondents were chosen for their pragmatic grasp of sourcing systems, transportation operations, supplier management as well as operational disruption in times of geopolitical uncertainty. Convenience sampling was used in the research because respondents were selected efficiently as they could be accessed and willing to provide the necessary information and knowledge they possess. Convenience sampling was deemed to be suitable because there was limited time and resources, and the research topic was specialised.

A total of 60 respondents were engaged in the study, for a reliable and representable sample of managerial perceptions and experiences with sourcing strategies and supply chain resilience. The sample size chosen was deemed adequate for descriptive statistical analysis and comparison purposes in accordance with the scope of the study. All the gathered information were thoroughly reviewed, organized, classified, and analyzed with quantitative analysis techniques, using percentage analysis, comparative analysis, frequency distribution, and graphical representation techniques. Tables and graphs were created to depict sourcing preferences, awareness of geopolitical disruption, supplier reliability, transportation stability, and continuity of operations during crises. To assess differences between local-sourcing and global-sourcing approaches in terms of resilience capability and operational risk exposure, comparative analysis was carried out. The variables included in the study were local-sourcing strategy, global-sourcing strategy and geopolitical disruptions (independent variables) whilst supply chain resilience was the dependent variable. Other performance factors studied during the research were procurement efficiency, inventory continuity, transportation reliability, supplier coordination, degree of operational flexibility, and disruption exposure. The study also formulated hypothesis to investigate the connection between sourcing strategies and resilience in geopolitical crisis. Hypotheses presented include local-sourcing has a positive influence, global sourcing has a negative influence during geopolitical disruption, geopolitical crises can have a significant influence on sourcing continuity, and diversified sourcing strategies positively influence capability for organizational resilience. Reliability and validity were ensured in the research process through the use of questionnaires that were structured in clear and definite questions relevant to the research objectives. The elaborated language was used in an easy to comprehend way to limit ambiguity and enhance the accuracy of responses. Ethical considerations have also been well respected in the research process. The presence at the survey was entirely voluntary and subjects were told about the academic intent of the survey prior to filling out the questionnaire. Respondents' confidentiality and privacy were respected throughout the research process, while all collected information was only used for academic analysis and interpretation. No personal or organizational information was made public. The study had been neutral, transparent, sincere and academic responsibility, to gain credibility and genuineness of the results. The methodology, adopted to the study, thus offered an integrated and secure approach to compare the impacts of local-sourcing and global-sourcing on the resilience of supply chains in the event of geopolitical crisis, and at the same time enabled the basis for their meaningful consideration from operational and managerial points of view.

IV. RESULTS AND DISCUSSION

The present chapter is dedicated to the analysis and interpretation of the facts gathered from the respondents linked to supply chain management, procurement functioning, logistics coordination, and sourcing. The aim of this chapter is to assess how local-sourcing and global-sourcing affects a supply chain's resilience during geopolitical crises. The gathered responses were subject to percentage analysis, frequency distribution and comparative interpretation techniques. The findings were presented both numerically and graphically in an organized and professional way. The research focuses on demographics, awareness of geopolitical disruptions, sourcing strategy preferences, and the extent to

which sourcing decisions influence operational continuity and resilience capability. The findings offer valuable insights into organizational response to geopolitical uncertainty and the role of both sourcing strategies as drivers for greater supply chain stability.

Table 4.1. Age Group of Respondents

Age Group	Number of Respondents	Percentage (%)
21–30 Years	18	30%
31–40 Years	24	40%
41–50 Years	12	20%
Above 50 Years	6	10%
Total	60	100%

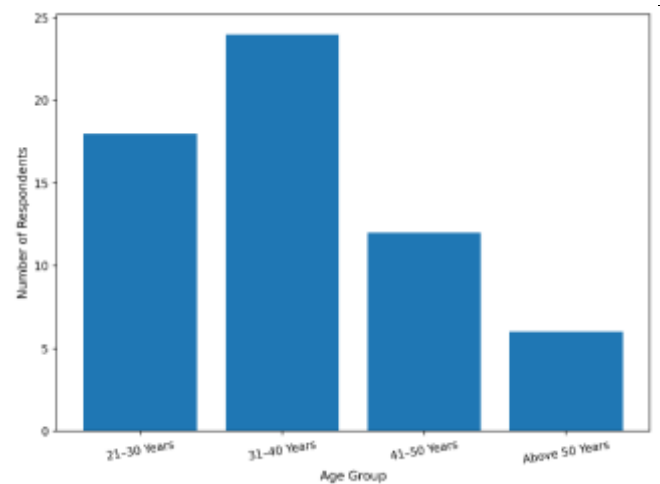


Fig. 4.1. Age Group Distribution of Respondents (Bar Graph)

As shown in the above table, the majority (40%) of the respondents were in the age class 31-40 years. This indicates that a good percentage of attendees were already seasoned professionals involved in sourcing, procurement and logistics activities. The age group 21-30 years old constituted 30% of respondents, reflecting high involvement from younger professionals who are more likely to know and use modern supply chain technologies and systems. Twenty percent of respondents were in the age group 41-50 years, meaning that senior managerial talent with a wealth of relevant industry experience was included. Relatively few highly senior executives were participants, with only 10% aged over 50 years. The sample is well-balanced, with representation from various age groups, enhancing the diversity and validity of the responses. Secondly, there is strong evidence of the influence of the individuals directly involved in current day sourcing and supply chain decision making processes, with a dominance of mid-career professionals.

Table 4.2. Professional Role of Respondents

Professional Role	Number of Respondents	Percentage (%)
Supply Chain Manager	14	23%
Procurement Executive	16	27%
Logistics Coordinator	12	20%
Operations Manager	10	17%

Business Analyst	8	13%
Total	60	100%

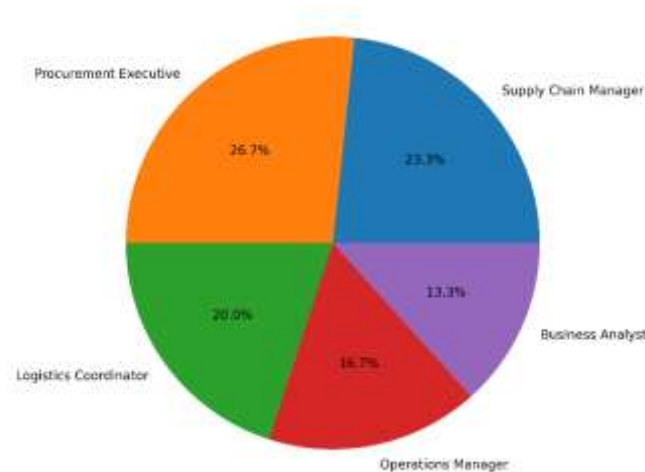


Fig. 4.2. Professional Role Distribution of Respondents (Pie Chart)

The table shows that the highest number of respondents were procurement executives (27%). This says a lot about the importance of procurement professionals when reviewing sourcing strategies during geopolitical crises. The percentage of supply chain managers was 23%, revealing that the supply chain managers had high engagement in the research process. The follow-up positions included logistics coordinators (20%), underscoring the significance of transportation and distribution operations in times of geopolitical challenges. Operations managers made up 17% of the sample, and business analysts comprised 13%. The results show that information was gathered from key players that have hands-on experience in sourcing, supplier management, inventory management and transportation stability. The variety of participants' professions supports the comprehensiveness and reliability of the research findings since meeting sourcing resilience requires both collaboration between the different functions (procurement, logistics, operational, and analytical) within organizations.

Table 4.3. Awareness Regarding Geopolitical Supply Chain Disruptions

Response Category	Number Respondents	of Percentage (%)
Highly Aware	28	47%
Aware	20	33%
Moderately Aware	8	13%
Slightly Aware	4	7%
Not Aware	0	0%
Total	60	100%

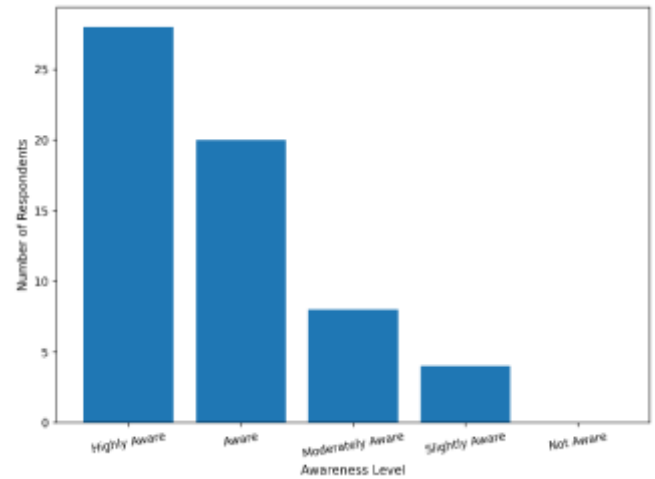


Fig. 4.3. Awareness of Geopolitical Supply Chain Disruptions (Bar Graph)

The results show that 47% had a high awareness of the disruption of the supply chain due to geopolitical crises, and 33% responded with awareness of the same. This represents that nearly 80% had high awareness about the effects of geopolitical unrest on sourcing, transport services, supplier ecosystems, and procurement continuity. Moderate awareness was indicated by only 13% of respondents and slight by 7%. 100% of the respondents did not choose "not aware", indicating that geopolitical uncertainty has become a well-known operational risk in the current world of business. The results indicate that organizations are more aware of threats regarding trade wars, trade sanctions, border restrictions, transportation disruptions, and political instability. The high awareness further suggests that companies are focusing on resilience planning, diversification of supply partners and strategic sourcing arrangements to limit operational risks in volatile geopolitical conditions.

Table 4.4. Major Geopolitical Factors Affecting Supply Chains

Geopolitical Factor	Number Respondents	of Percentage (%)
Trade Wars and Tariffs	18	30%
Military Conflicts	14	23%
Economic Sanctions	12	20%
Border Restrictions	10	17%
Political Instability	6	10%
Total	60	100%

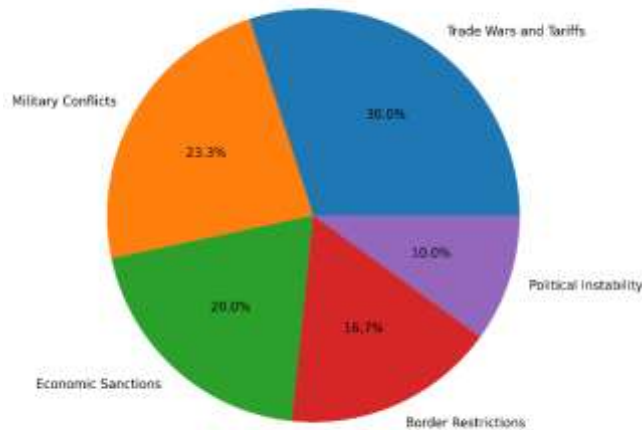


Fig. 4.4. Major Geopolitical Factors Affecting Supply Chains (Pie Chart)

In the table below 30% of the responses pointed to trade wars and tariffs as the top geopolitical concern for trade in a supply chain. Retailers felt trade restrictions and higher tariffs were among the key drivers of procurement volatility, higher costs and uncertainty in sources. Twenty-three percent of responses were related to military conflicts, highlighting the far-reaching effect of wars and regional tensions on the transportation systems, shipping routes, and international procurement networks. 20% of responses indicated economic sanctions, suggesting that government imposed trade restrictions played an important role in sourcing continuity and reliability of suppliers. Border restrictions included in the responses (17%) and the lack of political stability (10%). The results show that organizations are exposed to several geopolitical risks that are interdependent and can hamper business continuity and make supply chains vulnerable. The findings also indicate that companies need flexible sourcing structures and diversified supply chains that can reduce their vulnerability to disruption during geopolitical events.

V. CONCLUSION AND FUTURE WORK

The study explored the effect of local sourcing and global sourcing on supply chain resilience during geopolitical crises and assessed how sourcing strategies affect operational continuity, procurement stability, transportation efficiency, supplier reliability, and organizational adaptability under geopolitical uncertainties. According to the study's results, geopolitical events like trade wars, economic sanctions, wars and conflicts, border closures, and political instability have a significant influence on the modern supply chain system and pose most serious operational problems to organizations that rely on globally distributed procurement networks. This study found that local-sourcing positively affects supply chain resilience in terms of dependency on transportation, coordination of suppliers, flexibility of operations and exposure to supply chain disruption in uncertain geopolitical situations. There was a strong sense that regional procurement systems are more stable and responsive during crisis situations, as local suppliers allow for quick communication, short lead times and continuity of operations. At that same time, the study also highlighted that global-sourcing offers valuable benefits including access to a wider supply base, better market competitiveness and lower procurement costs. In spite of all these advantages, world sourcing makes the organization weaker to disruptions in the international, customs delays,

transportation interruptions and geopolitical instability. This indicates that excessive reliance on sourcing in any one country should be avoided and a more diversified or hybrid sourcing framework that features a balance of resilience, flexibility and cost-effectiveness should be selected. In addition, the study finds that supply chain resilience is no longer just an operational issue, but a proactive strategic organizational one that must be addressed with risk management, supplier diversification, and flexible sourcing practices. Future research may extend analysis to discuss larger populations, international comparisons, and industry-specific analyses in sectors like automotive production, electronics, pharmaceuticals, and retail supply chains. Potential further research could include a deeper analysis into how new technologies like artificial intelligence, blockchain systems, predictive analytics, and real-time supply chain monitoring can contribute to resilience during geopolitical crises. Overall, the results emphasize the need for resilience-focused sourcing strategies to ensure long-term business stability and operational sustainability in today's unpredictable global landscape.

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