



# The Impact of Trade Wars on Global Supply Chains

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**Abstract-** It investigates the influence of trade wars on global supply chains by spelling out the disruptions that result when tariffs, retaliatory steps and tensions arise, mostly through the U.S.-China conflict. A survey of 50 people working in supply chain-related jobs shows the major challenges in procurement, logistics and production and the methods companies are using to address these problems. It is shown that companies are mostly expanding their options for suppliers, moving operations closer to home, introducing technology and maintaining higher quantities in stock as solutions against trade conflicts. Even though they lead to costs now, these changes improve the organization's ability to remain flexible and strong in the long run. Also, the findings point out that organizations are increasingly turning to data-based methods and choosing risk-aware supply chain strategies instead of sticking to earlier cost-focused approaches. Firms need to pay more attention to geopolitics in their work and lawmakers should focus on supporting both free trade and safety for businesses.

**Keywords-** trade wars, global supply chains, tariffs, procurement disruption, supply chain resilience, strategic response, U.S.-China trade conflict, digital supply chain, nearshoring.

## I. INTRODUCTION

This study is conducted in the following background: Because of global connectivity, the growth of supply chains has made them vital for international trade and manufacturing. Relying on efficiency, cost-efficient methods and quick delivery such networks crisscross the globe to guarantee goods and services are always available. But trade wars which involve putting tariffs, blocking trade and taking retaliatory actions by core economies, have endangered the stability of these systems. A good example is the U.S.-China trade war which has shown the way tensions among nations affect worldwide trade, buying choices and business plans. Altering to the changing reality, businesses are prompting supply chains to change from being lean, worldwide and computer-based to being flexible, closer to home and digital. Because of this change, people are now looking to science-based research to learn about the effects of disruption and successful ways to respond in different sectors.

### A. Statement of the Problem

Talking about trade wars in economic or policy areas is common, but there is not much focus on how supply chains in organizations are affected. Firms often have to deal with

uncertain regulators, rise in costs they did not expect and frequent shifts in where they get their supplies from. There are not enough studies on how trading disputes encourage firms to make changes in their procurement, logistics and risk management strategies which leads to a knowledge gap. Also, because impact varies by industry, place and type of business, it is hard to create a single response strategy. This study mainly focuses on examining what happens in operation and strategy when businesses are affected by trade wars and it also looks at how these changes can be maintained in a rocky global economy.

### B. Objectives of the Study

The study examines what happens to global supply chains because of trade wars, with particular attention to the disruptions faced by companies and the actions they take. The objectives are as listed here:

1. To study the kinds and sizes of disruptions trade wars have on buying products, making products and logistics processes.
2. To measure how well the strategies of supplier diversification, nearshoring and technology help the organization.
3. To point out the industries that are most vulnerable and look at the causes.
4. To study the role of digital technology in improving how supply chains are seen and able to react during trade disputes.
5. To give important suggestions and strategies that help build flexible and strong united supply chains worldwide.

### C. Research Questions

In the process of achieving stated objectives, the study tries to answer these research questions:

1. What effects do trade wars have on the most basic operations of global supply chains which involve procurement and logistics?
2. How are firms making changes in their day-to-day and long-term plans because of these changes?
3. Among all industries which show the greatest challenges and what contributes the most to their vulnerability?
4. What ways do companies use technology to respond to uncertainty and keep the supply chain stable?



5. Which strategies and programs would reduce the ongoing dangers brought by trade conflicts?

#### D. Significance of the Study

It adds important insights for academic researchers and for those making choices in practice. Studies in this field supply coverage on a specific point in economics: the connection between major changes in government policies and supply chains. They open the door for more studies on global value chains, risk management and organization at times of economic tension. By explaining what goes wrong and how it can best be tackled, the research guides business chiefs, supply chain managers and people who work on rules and laws. In a time when there is a rise in trade protectionism, companies must know the strategy changes they need to keep operating globally, as it is a necessity.

#### E. Scope and Limitations

Modern protectionism is explored by focusing on the recent cases of trade wars, differently starting from the U.S.-China conflict. A cross-sectional approach was chosen and a sample of 50 respondents in supply chain work was used to guarantee both academic standards and real-world relationships. But because of the time and resources available, the aim of the study is to use secondary research and survey findings and not to produce longitudinal or sector-focused insights. Besides, while the respondents are no doubt broad, the survey may lack viewpoints from various places in the industry. These limitations are admitted, although they do not change the main value and importance of the study results.

### II. LITERATURE REVIEW

Using different countries' strengths for greater efficiency in businesses is common in supply chains and for a long time, they were seen as positive, but their problems are noticeable in situations of global tension. according to research, big disruptions in supply networks occur when trade wars involve powerhouse nations such as the United States and China. Mainly, the issue is explained through the Comparative Advantage Theory (Ricardo, 1817), indicating that protectionist policies tend to interfere with optimal distribution of resources and the Global Value Chain (GVC) concept, as Gereffi (2018) points out, makes it clear that fragmented production systems are sensitive to changes in trade (Gereffi, 2018). The trade disagreement between the U.S. and China which got worse in 2018, is believed to be very important, with information suggesting that companies changed their suppliers, had to pay more and faced greater risks in their supply chains (Hasan et al., 2024). Luo and colleagues (2023) confirm this and point out that firms moved some of their production to regions such as Southeast Asia to avoid paying the extra tariffs. Trade shocks and how they affect supply chain stability are drawing more interest in investment literature. KPMG (2024) points out that relying heavily on a few markets, keeping inventories low and not developing digital systems are among the main risks in the global trade system. Firms are therefore introducing tech tools like blockchain, AI and predictive analytics to handle disruptions immediately as they occur (Xu et al., 2023). The move from reducing expenses to managing risks is further emphasized by institutional theories, pointing out that regulatory and political factors direct the actions of organizations (North, 1990). The field does not have many studies focusing on each industry and checking how long such strategies sustain success. Most of the discussion now is about the overall macro effects and little is said on how

trade disputes actually influence business decisions and routines.

Clear from the data is that nations are turning more to protectionism and protectionist policies when considering global trade agreements. National security, saving jobs and economic independence have led countries to return to inward-looking policies and abandon some free trade rules. Because of this shift, multinational companies must now handle increasing uncertainty in policies and costs (World Economic Forum, 2024). Studies based on observations from companies show that businesses have met these pressures by sourcing from multiple suppliers, investing in local or regional purchasing (nearshoring) and managing inventory to be ready for changes in trade rules (Sabogal De La Pava & Tucker, 2023). For example, when there were trade disputes in the pharmaceutical industry, export bans and tough reviews stopped the export of medicines which led to shortages and new planning of supply chains. Although they help the firm withstand disruptions such efforts can reduce how well the company runs and make operations more complex. Besides, companies with advanced technological knowledge usually adjust well, making it harder for small-to-medium enterprises (SMEs) to close the gap (Thomson Reuters Institute, 2025). Some researchers, for example Kancs (2024), suggest that obscurity in trade policy drives companies to make their supply networks flexible and adapt to constant change. Even so, a lot of current research does not incorporate these ideas into helpful strategies for making decisions. Also, although digital transformation is being widely adopted, how it is done is still not equal in different industries and geographies. Overall, research literature gives strong insight into how trade wars influence countries and businesses at all levels, but more detail is required through studies to explain reactions by industry, the lasting effects of strategies to cope and the impact of digitalization on world trade swings.

### III. RESEARCH METHODOLOGY

Researchers apply descriptive and analytical approaches to analyze the strategies and operations of businesses involved in global supply chains affected by trade wars, mainly looking at adaptations in purchasing, logistics and working with suppliers. Structured survey data on the opinions and experiences of professionals and students in supply chain management, international trade, logistics and similar areas is used in the study. Fifty individuals were chosen for the study using purposive sampling which targets those with direct or related experience of trade disruptions. Distributing the questionnaire online allowed the team to reach more people efficiently, adjust to different schedules and still get a good response which mattered a lot due to the location and diversity of those being studied. It had 20 clear questions made up of multiple-choice questions and Likert scale statements, arranged into categories for describing people, assessing the effects of trade wars and looking at how they respond. A few members of the target population who volunteered were used in a pilot test to clarify and increase the reliability of the questionnaire and small adjustments were made using the feedback received. Important topics in the survey relate to changes within companies related to trade conflicts which areas of the supply chain are most affected (for example, procurement, logistics, inventory and cost management) and whether companies have turned to supplier diversification, nearshoring or using more advanced digital approaches. Data were put together using digital spreadsheets and main



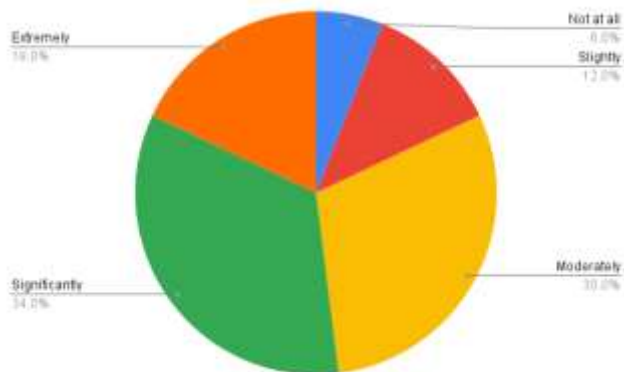
analyses were done using frequency distribution, percentage breakdowns and cross-checking data values. Statistics were clearly shown using bar graphs and pie charts. Although the study didn't use sophisticated statistical tools because the sample was not large and the goal was exploratory, the data still permitted solid thematic analysis. It looks at how industries such as electronics, automotive, pharmaceuticals and logistics, that depend on global sourcing, are affected by supply chain disruptions globally with an example being the U.S.-China trade war. Data is gathered for a large-scale business sample at one time to give a picture of the ongoing effects of trade disruptions on companies. Ensuring ethics, participants knew the study was meant for academic purposes, no identifying information would be stored and they had to agree before answering the survey. None of the participants' personal information was taken and the data was well protected for review. The approach has some limitations such as that not all people can take part due to lack of internet access, how the study is done limits how well adaptation after time can be understood and how big the sample is limits the ability to generalize results. The review points out some problems, yet it provides clear and useful details about supply chain changes caused by geopolitical changes. The framework gives the research structure, so it can be reproduced, is open and corresponds to the academic setting and serves both theoretical and practical needs for policymakers, business leaders and those developing supply chain strategies.

#### IV. DATA ANALYSIS AND INTERPRETATION

The most important data from the structured questionnaire, filled out by 50 persons involved in supply chain management, international trade and procurement, is presented in this chapter. The main theme is to investigate three major details: how trade wars disrupt organizations, what changes firms make in sourcing and how they act to address the challenges. Each part of the report comes with a table that shows the percentage and frequency of each variable and it's paired with a describing graph and an interpretation.

**Table 1: Extent of Organizational Impact from Recent Trade Wars**

Response Category	Frequency	Percentage (%)
Not at all	3	6.0
Slightly	6	12.0
Moderately	15	30.0
Significantly	17	34.0
Extremely	9	18.0
<b>Total</b>	<b>50</b>	<b>100.0</b>



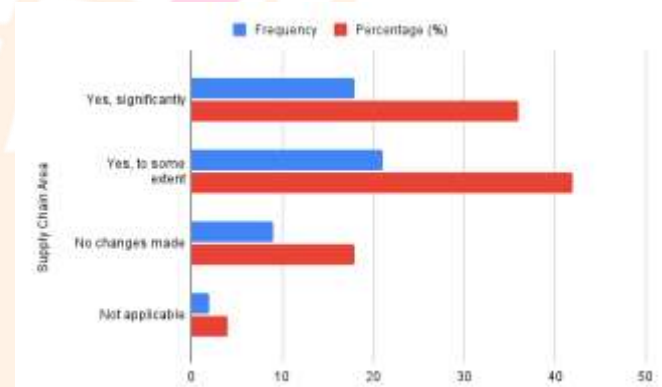
**Graph 1: Degree of Impact from Trade Wars on Organizations (Suggested: Pie Chart)**

#### Interpretation:

Roughly half (52%) of the organizations were disrupted significantly or extremely by recent trade wars. It means that external policies in the economy cause major operations problems, mainly shown in procurement, interactions with suppliers and costs. People who said their activities were moderately affected imply that a system-wide problem is still present, even in cases where companies have diversified operations. The small number (18%) that saw very little effect are probably either domestic firms or firms that had resilience in place even before the pandemic. Because of the high number of disruptions, firms that rely on foreign supply chains must start planning ahead.

**Table 2: Changes in Sourcing/Supplier Networks in Response to Trade Wars**

Response Category	Frequency	Percentage (%)
Yes, significantly	18	36.0
Yes, to some extent	21	42.0
No changes made	9	18.0
Not applicable	2	4.0
<b>Total</b>	<b>50</b>	<b>100.0</b>



**Graph 2: Organizational Changes in Sourcing Networks (Suggested: Bar Chart)**

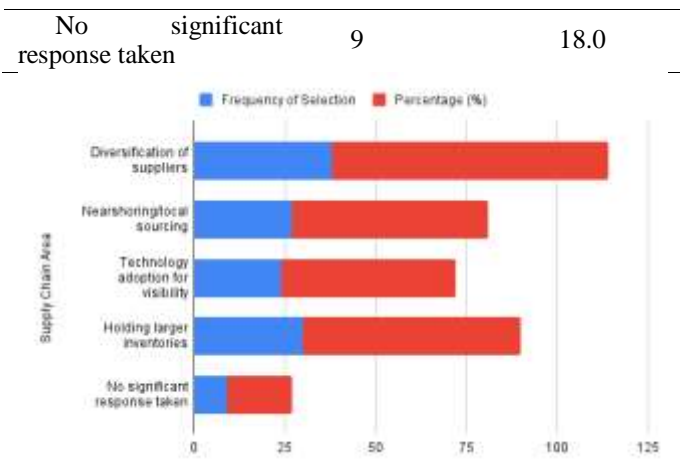
#### Interpretation:

Nearly three quarters of respondents (78%) have modified their supplier networks as a result of trade-related challenges. More than a third (36%) have made key changes to their supply chains, possibly to lessen their dependence on geopolitically sensitive regions. Around 42% chose to make only some updates which suggests they are taking a step-by-step approach either due to terms in their contracts or internal limitations. Those 18% of firms that said they did not change anything may already have strong supply chains and not do business widely overseas. This observation means trade wars have made companies everywhere take a new look at their suppliers, risk levels and buying plans.

**Table 3: Strategic Responses Adopted by Organizations Due to Trade Wars (Multiple selections allowed; totals may exceed 50)**

Strategic Response	Frequency of Selection	Percentage (%)
Diversification of suppliers	38	76.0
Nearshoring/local sourcing	27	54.0
Technology adoption for visibility	24	48.0
Holding larger inventories	30	60.0





**Graph 3: Strategic Responses to Trade Disruption**  
(Suggested: Clustered Bar Chart)

#### Interpretation:

The data show firms are choosing stronger and more reliable approaches to how they operate. Respondents overwhelmingly mentioned supplier diversification (76%), underlining why businesses should not trust just one country or region for all their parts. More than half of firms (60%) said they are holding more inventory which shows a movement from lean inventory towards stockpiling. Nearshoring and local sourcing (54%) are signs that companies are choosing regional supply chains as a way to manage geopolitical uncertainty. It is notable that about half of the organizations (48%) decided to use digital tools for managing risks in real-time, showing an increasing understanding of what tech can do in this area. A fourth of the companies (18%) who did not act may not have access to enough information or are delaying action which might put them at risk if disputes persist. In general, the data points to major changes in strategy, concentrating on being resilient, adaptable and using technology.

#### V. DISCUSSION

According to these findings, trade wars affect the intricate supply chain system much more than they do politics or the macroeconomy. The review of data suggests that trade conflicts have greatly and deeply impacted organizations, mainly with logistics, procurement and management of suppliers and over half of the respondents notated major to serious challenges in operations. Disruptions have been seen in both short-term effects (like high sourcing fees) and deeper changes (such as revising supplier networks). It closely follows the major theories explained earlier, because companies have to reshape scattered international production and make use of what makes them unique to maintain being competitive. Companies have answered by using both short-term and long-term approaches, including using diverse suppliers, sourcing locally, keeping more stock and moving toward digital ways of operating which mean they are no longer just looking to cut costs. Many companies are using nearshoring and stocking more products which leads to higher costs, to ensure they have continuous and reliable supply. This change goes with the institutional view, saying firms respond to the new policies and uncertainties of the world economy. In addition, even though technology is still not fully present in every company, it is quickly becoming essential for managing and tracking supply chains, with its help companies can monitor political risks and monitor their inventory on a live basis. Larger companies with more money and advanced technology can generally adjust better and modify their supply chains than SMEs which may run

into resource issues. Looking at both statistics and research, the study proves again that trade wars spur action, making companies upgrade their supply chain systems from focusing on one path and expenses to being flexible, aware of risks and integrated with technology. Even though the modifications may be tiresome at first, in the long term they support better organizational growth, risk prediction and supply chain and business alignment. So, it seems that trade wars apply noticeable pressure on supply chain management which requires a new global trade approach to prioritize resilience, flexibility and understanding of geopolitics as much as efficiency and timeliness.

#### VI. CONCLUSION AND RECOMMENDATIONS

From this study, it is clear that trade wars dramatically show how vulnerable and stressed current supply chains become and force organizations to address the challenges that arise from their close connections and effort to run smoothly. An analysis of the results from surveys reveals that a lot of firms, no matter their sector, have noticed significant disruptions in their procurement, logistics, production planning and supplier reliability. Because of these challenges, companies are now placing greater emphasis on becoming more flexible and this means they are increasingly using approaches such as working with a wider variety of suppliers, bringing production closer to them, building up extra stock and using new technology to help reduce risks. In other words, the previous view of trade wars as minor diplomatic conflicts is no longer true, since trade wars now have a major impact on the economy and push businesses to change their supply chain plans. Because of these findings, several sensible and policy-related suggestions appear. Building supplier networks across several regions and using new technologies for better tracking, prediction and response should be important to businesses. Another way to help is by using local production and distribution which can make things more predictable and protect companies from changes in trade policies. Policies should ensure governments encourage stable trade, back up programs for small business adjustments and help companies use secure supply chain technologies. Performing regular geopolitical risk assessments and including supply chain strategy in business governance is more necessary now. Still, although trade wars add risks and cause inflation, they encourage businesses to adapt, become informed and plan better for the future. If companies accept these changes, they can both deal with future problems and stand out among competitors trading across the world.

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