
| RESEARCH ARTICLE**Examining the Effect of Global Supply Chain Disruption on the Trade Market for Automobiles in Zambia****Brian Silomba***School of Graduate Studies, Copperbelt University, Kitwe, Zambia***Corresponding Author:** Brian Silomba, **E-mail:** silomba.bryan4@gmail.com

| ABSTRACT

The coronavirus disease (COVID-19) pandemic caused major global supply chain disruptions. However, this study examined the effect of global Supply Chain disruption on the automobile trade market in Zambia. It incorporates comparative data spanning pre-pandemic (2016-2019) and pandemic (2020-2022) periods, providing insights into key performance shifts. The automobile industry's adoption of alternative logistics routes and enhanced supplier relationships demonstrates practical applications of theories in under-researched Zambian territories. The resource dependence theory (RDT), Institution theory (IT), and Contingency theory (CT) were incorporated. The research study relies on a qualitative research design, and the primary data were gathered from automobile dealer companies within Lusaka, Zambia. The data were gathered from surveys, questionnaires, interviews, and observations from different automobile organizations in Zambia. The targeted automobile companies were Ford Zambia (cfao mobility), Toyota Zambia, and Southern Cross Motors. A total of 115 people were interviewed from Procurement, Logistics, Facilities, and warehouse / Stores department amongst the three automobile dealer companies within Lusaka, Zambia. The research findings identified several key metrics on the trade market for the automobile industry utilized to monitor and assess global supply chain disruptions on trade, particularly in response to the challenges posed by the COVID-19 pandemic. However, these findings underscore the need for continuous improvement of resilient supply chain strategies, particularly in a global landscape marked by frequent disruptions.

| KEYWORDS

Global Supply Chain Disruption (GSCD), Automobiles (ATM), Supply Chain Resilience (SCR), Trade Markets (TM), Coronavirus Disease (COVID-19), Ford-Zambia cfao Mobility (FZCM), Automobile Dealers (AD).

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1. Introduction**1.1 Background of the Research Study.**

Today, global supply chains form the backbone of production systems, linking firms, industries, and consumers across continents through intricate networks of sourcing, manufacturing, and distribution (Ahmed Ragab Mahmoud Salah, 2025). Over the past two decades, globalization and technology have transformed supply chains into highly mechanized, specialized, and cost-effective structures designed to minimize inventories and maximize scale advantage. However, this pursuit of efficiency has also increased systemic vulnerability, making international production networks highly sensitive to shocks (Ahmed Ragab Mahmoud Salah, 2025). The study examined the effect of global Supply Chain disruption on the automobile trade market in Zambia.

However, linking to the research study, a ripple effect occurs when a disruption, rather than remaining localized or being contained to one part of the SC, cascades downstream and impacts the performance of global Supply chains. This effect might include lower revenues, delays, loss of market share and reputation, and stock returns, decreasing revenue and capital investments (Boris Sokolov et al., 2017). The latest global events—including pandemic-related shutdowns, semiconductor shortages, geopolitical conflicts, port congestion, and transportation delays demonstrated how quickly supply bottlenecks can propagate across industries ranging from electronics and automobiles to food, pharmaceuticals, and energy within the supply Chains across the globe (Ahmed Ragab Mahmoud Salah, 2025).

These disruptions generated widespread economic consequences such as production shutdowns, shortages of essential goods, and inflationary pressures (Boris Sokolov et al., 2017). However, the introduction of this research study establishes the context for analyzing the main causes and effects of supply chain disruptions, also emphasizing their great importance in shaping macroeconomic performance, trade market patterns, and long-term strategic planning for governments and multinational organizations. Based on the study findings, statistics show that 35% reported undisrupted global supply chains in trade market for automobiles in Zambia, and 65% were paused with heavy disruptions. Thus, examining the effect of global supply chain disruption on the automobile trade market in Zambia was vital. The general subject area of the research study focused on global Supply Chain disruption on the trade market for automobiles in Zambia.

The research findings show that few studies have been conducted on this topic. However, this research study was conducted to be relevant as a reference point for other research bodies and evidence-based decision-makers in supply chains and global logistics, and to generalize for policymakers as prime beneficiaries. Therefore, it is imperative to check the supply chains more often as a yardstick. However, this study focused on evidence-based decision-makers in the Supply Chain and global logistics fraternity (Alexandre Dolgui et al., 2017). Aligning with studies conducted in some parts of Zambia (Austine Chiyobeka, 2026), this study does not fully cover the contextual gap in examining the effect of global supply chain disruption on the trade market for automobiles in Zambia. For that reason, it shows the Knowledge gap being addressed by the researcher.

The research study, which was conducted in Zambia based on supply chain disruption, focused on examining the Logistical factors affecting supply chain management among freight forwarding agents in Lusaka district of Zambia (Austine Chiyobeka Milambo and Shem Sikombe, 2026); however, it did not focus much on supply chain disruption on the trade market for automobiles in Zambia.

Many areas of research studies have been covered by Scholars, but the contextual factor of examining the effect of global supply chain disruption on the trade market for automobiles in Zambia has remained an area of concern. To highlight the existing Knowledge gap, the research study focused on examining the effect of global supply chain disruption on the trade market for automobiles in Zambia. Then, incorporating the Resource Dependence Theory (Pfeffer & Salancik, 1978), the theory postulates that Organizations are dependent on external resources, making them vulnerable to global supply chain disruptions. The automobile industry's reliance on global suppliers for automotive & spare parts became a very big challenge during the COVID-19 pandemic, which struck the entire world, reinforcing the relevance of RDT as a key.

Another research study conducted in Zambia focused on factors affecting the supply chain in the manufacturing and automobile Industry in Zambia (Eluide Masamba, 2026). The data collection sources did not cover the contextual factors for examining the effect of global supply chain disruption on the trade market for automobiles in Zambia. The Paper was conducted in Zambia; hence, it has some differences that required adaptation to the global supply chain disruption from a trade market perspective to create room for future researchers (Austine Chiyobeka Milambo and Shem Sikombe 2026). Many areas of research have been covered by the researchers to highlight the existing knowledge gap. However, this study concentrated on examining the effect of global supply chain disruption on the trade market for automobiles in Zambia.

1.2 Problem Statement

The Zambia Public Procurement Authority Act No. 8 of (ZPPA 2020) does not show specific statistics pertaining to supply chain disruption in the trade market for automobiles in Zambia. However, supply chain disruptions, particularly those stemming from economic challenges, global events, natural disasters, pandemics, and price fluctuations, directly impact how the (ZPPA) monitors and evaluates supply chains. The (g-SC) system in Zambia has come with some challenges. Despite the central importance of global supply chains in the trade market for automobiles and modern economies, there remains a limited understanding of the mechanisms that make these networks highly vulnerable to disruption and the full economic consequences of such instability. Existing analyses often examine individual shocks such as pandemics, natural disasters, or geopolitical conflicts but fail to capture how these events interact with structural weaknesses in production systems, including extreme dependence on a small number of suppliers, highly concentrated manufacturing hubs, and insufficient logistical redundancy (Ahmed Ragab Mahmoud Salah, 2025).

1.3 Research Aim and Objective

The Research aimed at examining the effect of global supply chain disruption on the trade market for automobiles in Zambia. Basically, the main objectives are;

- To evaluate supply chain resilience, including key concepts, dimensions, and determinants.
- To analyze real-world case studies of supply chain disruptions to understand the impact of these events on supply chain operations and resilience.
- To explore best practices and innovative approaches adopted by organizations to enhance their supply chain resilience in the face of global disruptions and uncertainty.

2. Literature Review

The literature review relies on secondary data sources that have been previously published. These will include empirical journal articles, journals, literature books, online publications, government gazette newsletters, conference proceedings, and other relevant publications. It is the literature review that gives insights into models that will reflect topics for a research study. So, the Literature review aimed to highlight fundamental ideas based on examining the effect of global supply chain disruption on the trade market for automobiles in Zambia.

2.1 Literature Review Process and Justification

The research study reviews and examines the effect of global supply chain disruption on the trade market for automobiles among the organizations that were acquired through the Internet and other recommended databases by certified researchers and scholars. Among the recommended databases are Google Scholar, Springer, Sage, ScienceDirect, Emerald, and ResearchGate, etc. Data collected from journal articles were cited in the research list because they contained important information relating to the research topic.

2.2 Supply Chain Resilience and Risk Management

Supply chain resilience has been widely studied as a critical factor in mitigating disruptions. Christopher and Peck (2004) define resilience as the ability of a supply chain to anticipate, prepare for, respond to, and recover from disruptions. The automobile dealers' experience in Zambia during the COVID-19 pandemic aligns with this framework, emphasizing the need for robust risk management strategies such as supplier diversification and demand-driven inventory management. Tang (2006) highlights the importance of flexibility in supply chain operations, suggesting that organizations with agile systems are better positioned to handle global crises. The automobile industry's adoption of alternative logistics routes and enhanced supplier relationships demonstrates practical applications of theories in crises.

2.3 Theoretical Foundation in Global Supply Chain on Trade Market for Automobiles

2.3.1 Resource Dependence Theory (RDT)

Resource Dependence Theory (Pfeffer & Salancik, 1978) postulates that organizations are dependent on external resources, making them vulnerable to supply chain disruptions. Automobile dealers in Zambia's reliance on global

suppliers for vehicle components became a challenge during COVID-19, reinforcing the relevance of RDT. By diversifying their supplier base and increasing collaboration with regional vendors, automobile dealers in Zambia aimed to reduce dependence on single-source suppliers, thus improving resilience.

2.3.2 Institutional Theory

Institutional Theory (DiMaggio & Powell, 1983) suggests that organizations conform to industry norms and regulations to maintain legitimacy. This theory is relevant to automobile dealers in Zambia's adherence to global supply chains & logistics standards, particularly in regulatory compliance and quality assurance. Institutional pressures also influenced strategies in responding to border restrictions and pandemic-related trade policies.

2.3.3 Contingency Theory

Contingency Theory (Donaldson, 2001) states that there is no single best way to organize or manage an enterprise; instead, decisions should be contingent on the specific environment. Automobile dealers in Zambia adapted their operations based on real-time disruptions, adjusting inventory turnover strategies and leveraging digital tracking systems to improve supply chain visibility.

2.4 Factors affecting the global supply chains on the trade market for automobiles

Global supply chain disruptions arise from a combination of structural vulnerabilities, behavioral responses, and market-driven adjustments that collectively determine how shocks spread through international production and assembly networks for automobiles (Ahmed Ragab Mahmoud Salah, 2025). Structurally, supply chains are organized into multi-tiered systems where firms depend on geographically dispersed suppliers, logistics hubs, and transportation routes. This complexity creates systemic fragility: the failure of a single critical supplier, port, or transportation corridor can cause widespread delays and production stoppages across multiple industries (Javorcik, B., 2020). Behavioral dynamics also play a crucial role. Firms often respond to uncertainty by over-ordering, reducing inventories, or shifting sourcing strategies, each of which can amplify shortages or create temporary surpluses.

Trade market dynamics, including price adjustments, currency fluctuations, and competitive pressures, shape how disruptions affect cost structures, profitability, and investment decisions (Ahmed Ragab Mahmoud Salah, 2025). Additionally, high trade market concentration in key industries such as semiconductors, energy, pharmaceuticals, and rare-earth minerals intensifies vulnerability, as disruptions in one region can instantly affect global output (Antràs, P. 2020). Globalization magnifies these dynamics by increasing interdependence, making it difficult for any country to isolate itself from external shocks. Understanding these structural, behavioral, and trade market mechanisms is essential for explaining why supply chain disruptions often escalate beyond the initial shock and produce long-lasting economic consequences.

A study conducted in Saudi Arabia by Mohamed Mostafa et al. (2016) used the Resource-Based View (RBT) and Contingency theories. A quantitative cross-sectional research design approach was applied to the Research study. The findings of the research study showed a strategy duality, where practices like multi-sourcing, localization, supplier collaboration, and digitalization strengthened resilience, whereas vertical integration, near-shoring, and excessive safety stock were counterproductive. This research contributes to the theory by integrating the Resource-Based View and Contingency theory, and offers practical, actionable recommendations for managers and policymakers to build robust, technology-driven resilience strategies tailored to the institutional realities of developing countries' automobile sectors. The research in the literature used in line with the topic showed that global supply chain disruptions have a negative effect on the trade market for automobiles.

Another study was conducted in South Korea by Sung-Ho Shin and Soo-Young Shin (2021). The research study was conducted, which focused on the reinforcement of supply chains corresponding to the global value chain in the automobile parts and component industry. The descriptive research methodology was used for collecting data, and the Resource-Based Theory (RBT) was incorporated into the research. Findings of the research study showed that global supply chain changes are also influencing the Korean automobile industry. In particular, as a result of COVID-19's "unpredictable" situation, the global supply chain formula that had been considered the traditional answer is

changing. This study used a visualization technique that enables intuitive analysis of auto part import/export data following the COVID-19 outbreak, diagnosed the global supply chain for parts used in automobile production in Korea, and examined parts with potential supply chain risks. This requires reducing the risk of supply chain disruption by diversifying the supply chain, which is currently concentrated in a few countries, and enabling low-cost domestic production of core components through automation and smart processes.

Just a small number of empirical research studies on global supply chain systems have been successfully conducted in Africa, for example, in Nigeria, Kenya, and Uganda. The few studies that have been conducted in the African continent and Sub-Saharan regions are concentrated mostly in Kenya. The Zambian context showed that little research has been conducted on global supply chain disruption on the trade market for automobiles in Zambia (Eluide Masamba, 2026), having undertaken research in some parts of the country. Therefore, the research concentrated on examining the effect of global supply chain disruption on the automobile trade market in Zambia. Thus, filling the contextual Knowledge gap.

3. Research Methodology

According to Saunders and Tossey (2013), the stated research onion framework is the best utilized to describe research study methodology. It also covers the choice of methodology, time horizon, study design plan, and techniques used for data collection and analysis, which form the first layer of the study process. So, the research philosophy elucidates the prime factors associated with the study concentration.

3.1 Research Design, Alternatives, and Justification.

Briefly discusses research philosophy involvement and the development of some assumptions, understanding, and the nature of the study undertaken. The researcher considers philosophical standpoints and social phenomena under examination (Saunders and Tossey, 2012). In this research study, a positivist approach is undertaken. This is because the positivist approach defines the research topic through the literature reviewed and defines research objectives and hypotheses. Findings were presented, and a conclusion was made, which showed some Knowledge gaps, and recommendations were made by the researcher. The data were collected using interviews, document analysis, focus groups, and an open-ended survey.

3.2 Population, Sampling, and External Validation

Therefore, for this research study, the population was targeted within Lusaka, Zambia, from Ford-Zambia (Cfao-Mobility), Toyota-Zambia, and Southern Cross Motors under the procurement (SCM), logistics, facilities and stores departments. The study examined the effect of global supply chain disruption on the trade market for automobiles in Zambia.

3.3 Data Collection

Primary and secondary data collection methods were incorporated into the study. Primary data refers to information that is directly gathered from surveys, questionnaires, interviews, and observations. Secondary data is extracted from government (public entities) and non-government organizations or statutory bodies through reports. To justify the decision made, it is essential to ensure that the research has a background through the extraction of primary and secondary data. The research paper involved the use of secondary data, and it is directly evident in the topic generation.

3.4 Data Analysis

According to Bryman and Bell (2003), data analysis is primarily the method used to conclude from obtained information by methodical identification of characteristics. Ultimately, qualitative data analysis considers variables using thematic and grounded theories to identify, analyse, and interpret recurring patterns or themes within texts, interview scripts, or observations.

3.5 Validity of Research Instrument

Muro (2005) defines validity as the extent to which the research findings reflect the study phenomenon more accurately. To ensure the validity of the data collection instrument, several steps were taken. Firstly, the interviews were conducted and reviewed by experts, including the academic supervisors, to ensure that the questions were clear, relevant, and aligned with the research objectives. Then, feedback from this review was used to refine the Interview. Additionally, a pilot research study was conducted with a small sample of the respondents to test whether the data collection instrument is effective. This pilot test helps to identify any ambiguities or issues with the interview to allow adjustments in order to validate the interview guide for data collection.

3.6 Ethical Consideration

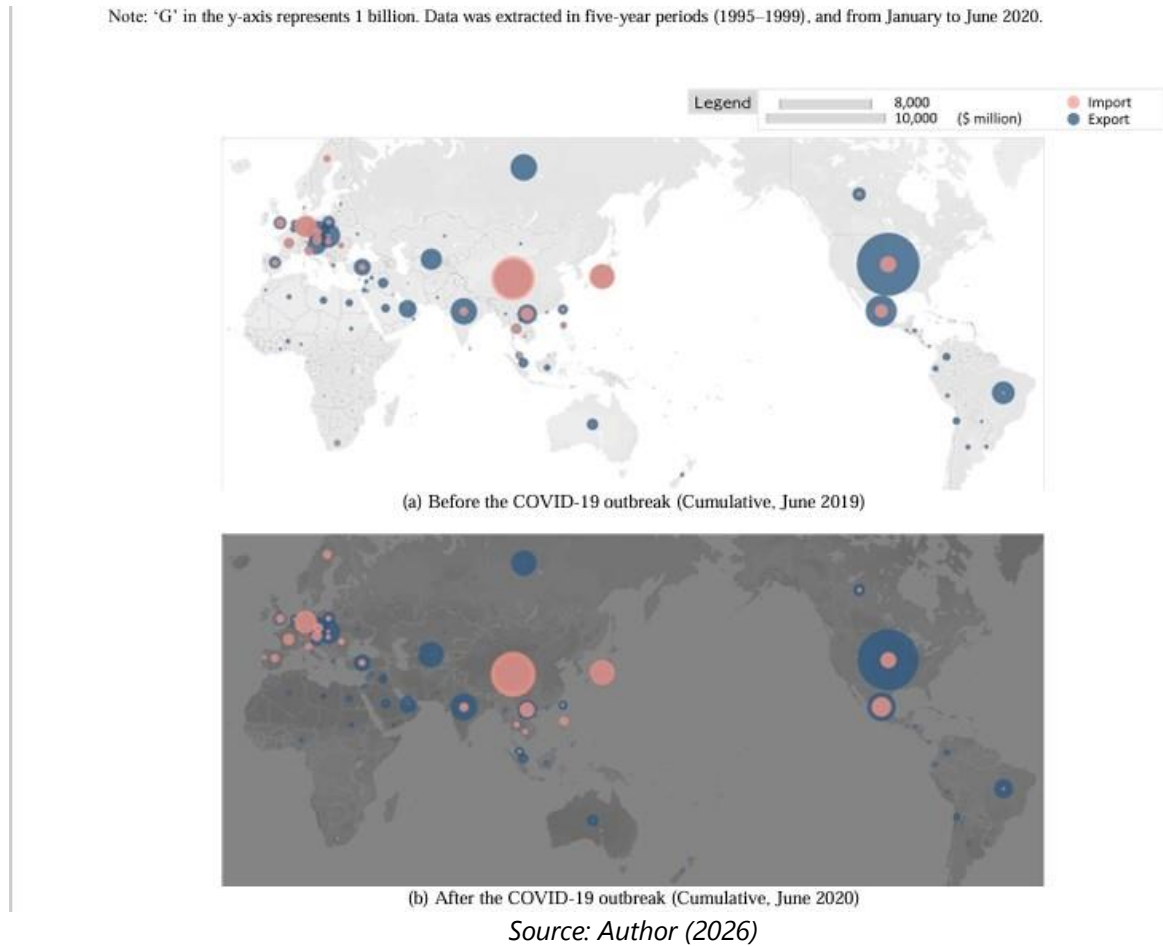
Based on the ethical standards to be complied with, it includes issues related to information for participants of the research study. It is essential to refrain from all deceptive practices as a researcher. However, conducting research ethically, selecting a study site, using interviews, and maintaining confidentiality also engage respondents (Creswell, 2013). When ethics are violated or not followed during a research study, policymakers, scholars, and even respondents can be severely harmed by the research findings. So, to avoid such issues during the research study, it is imperative to make sure the data collected from the respondents is 100% confidential and verified. Through effective compliance, all deceptive information will be avoided completely. This means that, for each interview in the study, the level of confidentiality and ethics must be clearly and explicitly maintained to avoid harming people.

4. Findings and Results

The research study identified several key metrics on the trade market for the automobile industry utilized to monitor and assess global supply chain disruptions on trade. Particularly in response to the challenges posed by the COVID-19 pandemic. The analysis of these metrics offers insight into the pandemic impact on automobile dealers in Zambia's operations and highlights areas where the company implemented adaptive strategies to mitigate disruptions.

However, the research study was supported by extracting information using the Bayesian network for the import and export of automobile parts, which is a descriptive statistic for visualization (Sung-Ho Shin, Soo-Yong Shin, 2021). The status of automobile parts by (five-year) import and export is shown in Figure 1 (data from 1995 to June 2025). Exports constitute a larger proportion than imports but have been declining since 2015, while imports have been slightly increasing. However, this trend is seen in both weights and volumes (\$). The data for 2020 are from January to June, but as can be seen, they are less than half of those in 2019. This is because the outbreak and spread of COVID -19 have had a significant impact on both the import and export of automobiles across the globe. According to the findings, this did not spare any automobile industry and trade markets, including Ford-Zambia (Cfao-Mobility), Toyota company, and Southern Cross Motors.

Figure 4.1 Showing the import and export partner countries for automobile parts



The above figure clearly shows the imports and exports before the COVID-19 outbreak and post-pandemic. To dive into the study with reference to the figure above, using the key metric indicators, imports and exports were disrupted during and after the outbreak of the coronavirus. Most of the trade markets for automobiles globally were locked down. This did not spare Ford- Zambia (Cfao- Mobility), including other automobile dealers like Toyota- Zambia and Southern Cross Motors.

However, the concurrent lockdowns were triggered by tariffs impacting the cost of importing materials, parts, and finished automobiles.

Figure 2 shows clearly, in a pictorial view, how this leads to extended time delays, or lead times grow longer, as ports experience congestion and vessels take alternative, longer paths to clear vessels within the global supply chains for automobiles.

Figure 4.2 Showing Congested ports with longer lead times in (g-SCM)

Source: Author (2026)

Ports in Northern Europe on the Mediterranean Sea.

The figure clearly shows, in a pictorial view, how congestion leads to longer delays, or lead times, as ports become congested and vessels take alternative, longer routes to clear fleets within global supply chains. This results in global supply chain disruptions in automobile trade markets.

4.1 Order Fulfillment Cycle Time

The order fulfillment cycle time, which enables tracking the time taken from when an order is placed until delivery, is a critical metric for evaluating automobile responsiveness to clients' demand.

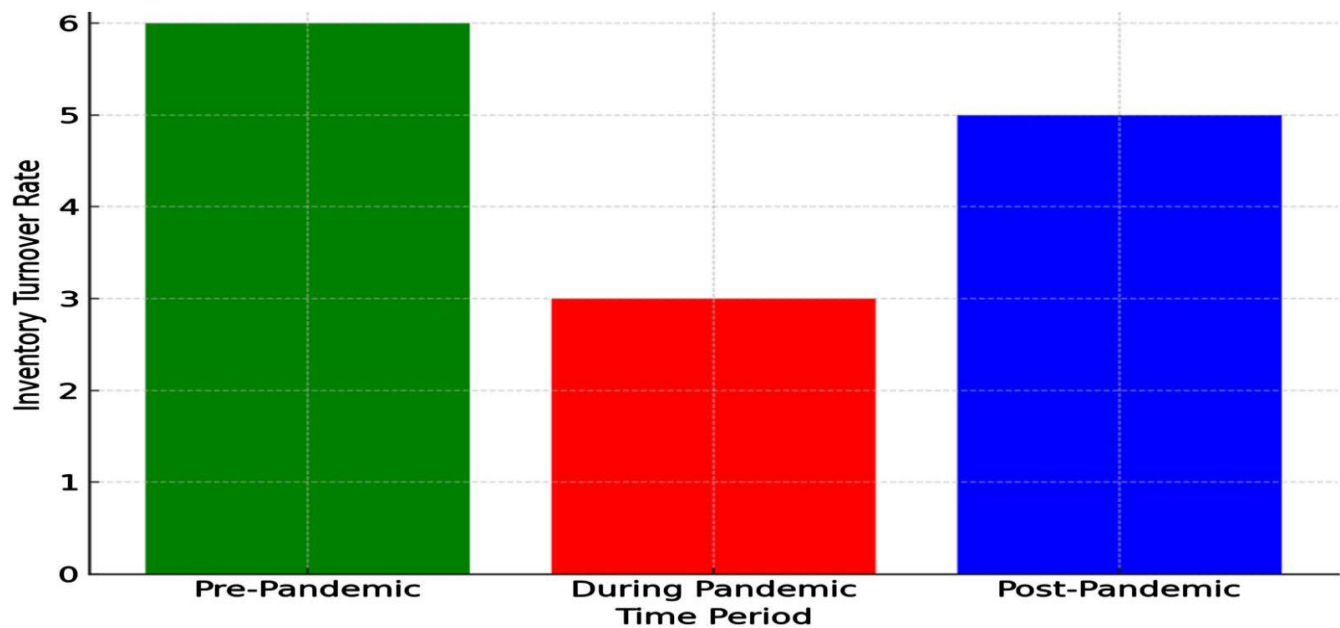
However, during the coronavirus (COVID-19) pandemic, automobile dealers experienced significant delays in order fulfillment due to disruptions within global supply chains and border restrictions. The shipping delays, port congestion, and limited transport availability, which extend lead-times, resulting in longer wait times. This increase in fulfillment cycle time negatively impacted on customer satisfaction, as the organization was unable to consistently meet the expected delivery time. So the organization recognized the importance of these metrics as the key drivers in the global supply chain in trade markets.

4.2 Inventory Turnover Rate

Inventory turnover rate measures how quickly inventory is sold and replenished, and this is vital for automobile companies due to its efficiency, helping to minimize holding costs while ensuring the products' availability. Before coronavirus (COVID-19), automobile dealers in Zambia maintained a steady turnover rate. However, the pandemic brought about substantial challenges to maintaining inventory flow, including supply shortages and delays. The disruptions reduced the turnover rate as the automobile dealers in Zambia struggled to replenish inventory promptly, which increased holding costs. The automobile dealers responded by improving stock forecasting accuracy and enhancing collaboration with suppliers to secure inventory, especially during critical peak times.

However, the reduced turnover rate during the coronavirus period underscored the importance of flexible stock management and having a diversified supplier base to maintain consistent inventory levels.

Figure 4.3 Inventory Turnover rate for Automobile dealers in Zambia



Source: Author (2026)

The data interpretation, based on the bar charts, shows that during the pre-pandemic period, the Inventory turnover rate was 6.0, significantly higher than expected.

During the pandemic, the turnover rate dropped to 3.0, showing that the decrease resulted from the concurrent lockdowns, marine delays for shipments, and flights being halted. Hence, these were the causes and effects of the supply chain disruptions on the trade market for automobile dealers in Zambia.

After the pandemic, the graph shows an increase in the inventory turnover rate to 5.0; this is an indication of stability within the global supply chains in the trade market for automobiles in Zambia.

4.3 Discussion of the study

The discussion of the results was arranged according to the research objectives.

The findings of this study align with the theoretical perspectives of the Resource-Dependence Theory (RDT) and the Contingency Theory, whose operations are based on real-time disruptions, adjusting inventory turnover strategies, and leveraging digital tracking systems to improve supply chain visibility. Linked to supply chain resilience, including key concepts, dimensions, and determinants, Supply chain resilience has been widely researched as a critical factor in mitigating disruptions. Resilience is the ability of a supply chain to anticipate, prepare for, respond to, and recover from disruptions. However, in this discussion, the automobile dealers' experience during the COVID-19 pandemic aligns with this framework, emphasizing the need for robust risk management strategies such as supplier diversification and demand-driven inventory management.

Tang (2006) highlights the importance of flexibility in supply chain operations, suggesting that organizations with agile systems are better positioned to handle global crises. The automobile dealer's adoption of alternative logistics routes and enhanced supplier relationships demonstrates the practical applicability of supply chain resilience during and after the Coronavirus pandemic.

The study also showed how real-world case studies of supply chain disruptions helped to understand the impact of these events on supply chain operations and resilience, causing massive financial losses, Operational halts, and

long-term structural changes. It also proved that flexibility, visibility, and diversification are vital for resilience within supply chains.

The impact was complete Operational failure in last-mile delivery and massive reputational damage due to unavailable core products. However, the resilience lesson shows that geographic and partner diversification prevents a localized incident from stopping the entire connectivity.

The extreme vulnerability of “Just in time” (JIT) manufacturing when secondary and tertiary suppliers lack redundancy, buffer stock for the critical single-source, and deep supply chain mapping down to tier 2 and tier 3 suppliers protects production improvement and continuity on the global supply chain. Best practices and innovative approaches adopted by organizations to enhance their supply chain resilience in the face of global disruptions and uncertainty. This is crucial within the supply chains in the trade market for automobiles. However, the following are prime factors or takeaways for supply chain resilience;

- Avoid the situation of a single point of failure; relying on one warehouse, one software system, or one supplier creates high risk.
- Investing in digital visibility, which is real-time data sharing, helps organizations spot bottlenecks before operations are halted.
- Balance efficiency with redundancy: while lean inventories or stocks save money during stable times, holding safety stock provides flexible insurance against total operational shutdowns in global supply chains.

The limitations surrounding the research were that the focus was in Lusaka, Zambia. Hence, not fully generalizable, and a cross-sectional design was employed. However, a longitudinal design would have been better for generalizability of the research study.

4.4 Conclusion

This chapter has demonstrated that supply chain resilience serves as a central pillar of corporate resilience and strategic sustainability in the automotive industry for both developed and developing countries. The Systematic findings reveal that resilience-oriented practices, specifically flexibility, collaboration, redundancy, and digital integration, collectively enhance organizational adaptability, innovation, and long-term competitiveness in the trade market for automobile Organizations in Zambia.

4.5 Recommendation

This study underscores the critical role of global supply chain metrics in examining and improving resilience. The automobile dealers in Zambia use specific supply chain metrics, providing a robust framework for identifying and addressing operational inefficiencies, particularly as COVID-19 disrupted traditional supply chains. By incorporating real-time monitoring and contingency planning into operations, the automobile dealers in Zambia, namely Ford-Zambia (Cfao-Mobility), Toyota-Zambia, and Southern Cross Motors, demonstrated the importance of agile supply chain management.

However, these findings underscore the need for continuous improvement of resilient supply chain strategies, particularly in a global landscape marked by frequent disruptions. To achieve the objectives, automobile dealers in Zambia should embark on the following;

- Invest in Digital (SCM) tools, enhancing real-time tracking and anticipating disruptions.
- Implement Lean inventory strategies, through balancing cost-effectiveness with resilience.
- Strengthen local sourcing by expanding regional supplier networks to reduce over-dependency on international logistics.
- Develop a robust contingency plan to mitigate risk and ensure business continuity in future crises.

For future strategies, the focus should be on building flexibility into global supply chain processes, enhancing collaborations with suppliers, and adopting digital tech for visibility within the supply chains.

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