Analyzing the Role of Indian Auto Component Exports on the Supply Chain Resilience of European Car Manufacturers

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Laurea University of Applied Sciences **Abstract**

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The goal of this research was to analyse the role of Indian auto component exports on the supply chain resilience of European car manufacturers. A qualitative research method was used, utilizing structured interviews and open-ended questions. The findings have been analyzed using the thematic analysis method that portrays the use of themes derived from the transcript. Qualitative research was conducted through interviews and thematic analysis, focusing on supply chain managers, logistics coordinators, and quality assurance officers in select Indian auto component firms. Professionals with firsthand, in-depth knowledge of the subject and direct involvement in export operations, including both trade challenges and compliance requirements, were chosen.

The findings reveal that notwithstanding the strong position of India in the auto component sector, supply chain efficiencies have been affected due to the challenge of compliance with EU regulations, global disruptions like the COVID-19 pandemic and Red Sea crisis, and high freight costs. The challenges faced by the trading of auto components between the EU and India include higher shipping costs, geopolitical conflicts like the Ukraine war, delayed transportation, uncertainties like the COVID-19 pandemic and others. The regulatory issues faced by the trade relationship between the EU and India include environmental norms, quality and safety standards and REACH regulations.

In order to continue with effective trading, Indian manufacturers need to comply with these regulations and train their employees to acquire knowledge regarding these norms. To improve cross-country partnerships and enhance supply chain resilience, open and transparent communication is the key aspect. It can be stated that increasing technical capability and investing in advanced technologies are the major approaches to improving quality and continuous development.

Keywords: Supply chain resilience, supply chain challenges, resource-based view, auto components, European Union

Contents

1 Introduction

1.1 Background of the Study

India is one of the fastest-growing nations at present time. This growth combined with rising incomes has boosted the manufacturing incentives and infrastructure spending. Based on a report by India Brand Equity Foundation (2025), the automotive component industry has witnessed a growth of 11% with a value of US$ 38.4 billion in the first two quarters of 2025. The country has become one of the biggest suppliers of car components to various regions across the world. The below figure indicates the export to different regions in 2024. Car makers like Renault, BMW, Volkswagen, and others are getting benefits due to the export of major components like transmission systems, engines, and electronics.

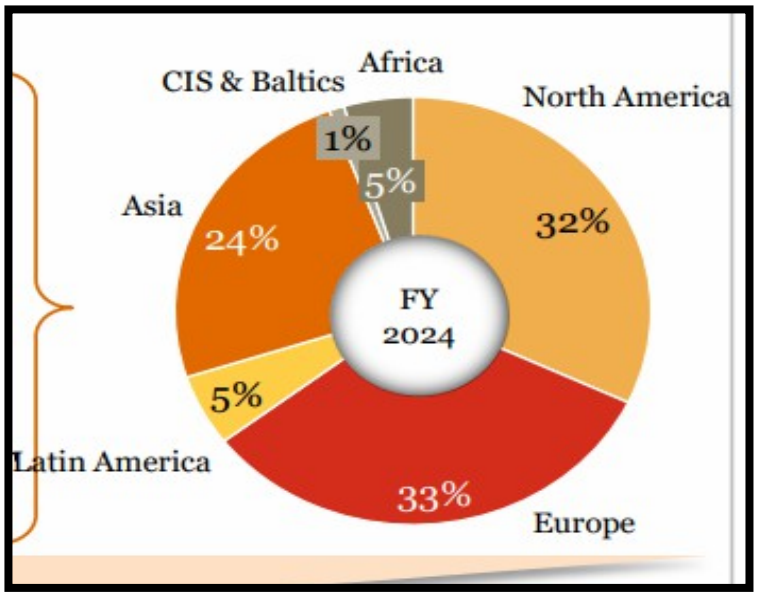

Figure 1: Exports from India (Source: ACMA, 2024)

As the global supply chain has witnessed major disruption in the last few years due to COVID-19, Brexit and other similar events, it has become a necessary requirement to develop an efficient and quick supply chain that can produce auto components at a cheaper rate. Based on the above figure, it can be stated that Europe witnessed the largest share of exports from India. This can be due to closer relationships with European countries including France, Germany and the UK. Thus, the research focuses on studying how Indian auto component exports can play a greater role in the supply chain resilience of car manufacturers in Europe. The research will be based on the primary qualitative method, which involves structured interviews, and will be supported by thematic analysis. Open-ended questions will be designed for participants to get deeper views on the topic.

1.2 Research Aims and Objectives

The research aims to analyse the role of Indian auto component exports on the supply chain resilience of European car manufacturers and develop strategies to mitigate supply chain and trade issues of auto components due to trade between India and Europe.

The research objectives for the thesis are:

To examine the contribution of Indian auto component exports and its role in shaping the European automotive supply chain

To assess the extent to which European Automakers depend on Indian suppliers

To evaluate the issues that exist in the trade of auto components between India and Europe along with the logistical and regulatory challenges

To offer strategic recommendations to mitigate the challenges and enhance supply chain resilience

Research questions formulated for the thesis are:

Market Opportunities: What is the scope for the Indian auto components in Europe?

Trade Regulations and Compliance: How does trade regulation both in India and Europe affect the trade prospects of auto components between India and Europe?

Logistical and Financial Challenges: What are the key supply chains issues impacting the trade prospects?

Risk Factors: What are the key strategies implemented by European Manufacturers to manage risks that are associated with outsourcing practices with India?

Best Practices: What are the strategies that have yielded successful results while integrating Indian auto components into European automotive supply chain practices?

1.3 Rational of the Study and Research Problem

The problem lies in exploring the extent to which the supply chain of the Indian auto component sector supports the sustainable development of car manufacturers in Europe. The higher competitiveness among automakers in Europe and competition from the global market have put pressure on them to ensure higher efficiency in their manufacturing process at lower costs. In the past 20 years, US and EU car makers have been dependent on China for their components to reduce costs. However, as reported by Sugiura et al. (2022), international organizations were trying to cut their reliance on China. Also, political issues are other

concerns resulting in poor relations of China with international communities. Supply chain risks tend to be greater for German car makers including Mercedes, BMW and Volkswagen as compared to other European countries (Sugiura et al., 2022). As these three are highly associated with China, there is a need for them to rely on another country where they can get car components at a lower price.

Indian auto component sector is aiming to earn $100 billion in exports by focusing on US and European markets. The next phase of export growth can add $40-60 billion in incremental exports by strengthening exports in these two countries (European Commission, 2024). As most of the car makers belong to these markets, India has a greater scope to gain accomplishments in its trade activities. Additionally, the European Union aims to develop a transparent, non-discriminatory and open business environment for European organizations trading with India (European Commission, 2024). Through this, multilateral obligations under the World Trade Organization (WTO) from both markets are respected. However, as the market is uncertain and both countries are bound through trade policies that may change over time, it is required to understand future risks associated with outsourcing practices of the European car makers with India.

The research is crucial as it can help to examine key government regulations, trade policies, and commercial agreements. With this, automakers will be able to apprehend the factors of supply chain resilience. The findings will help the automakers to analyse the challenges associated with the trade of auto components and come up with strategies to boost the supply chain. Additionally, organizations will be able to gain outstanding knowledge of the import process and enhance the efficiency of existing import functions.

2 Literature Review

A literature review refers to searching, evaluating, synthesizing and analyzing key sources related to the research topic. In this chapter, the review will be performed on the previous literature on the establishment of the degree to which the supply chain of Indian auto components is sustaining car manufacturing industries present in Europe. This section will develop some themes considering the research objectives developed for the topic. Along with this, a conceptual framework and literature gap will be included. The key theories to be included in the review are the resource- based view and supply chain resilience theory.

2.1 Indian Auto Component Industry and Its Contribution to Global Exports

India has a higher demand for auto components in the global market due to a shift in the global supply chain. According to the report by IBEF (2025), the expanding middle-class population and increased population rate are the key drivers of these demands. The sector deals with 25% of the production in export activities from India. It also aims to invest around

US$ 7 billion to boost the localization of modern components like automatic transmission and electric motors. Also, India is the global auto component sourcing hub for key markets such as Japan, Korea and Europe. On the other hand, Prakash & Nauriyal (2020) stated that the Indian automotive component sector is a front-line sector that has benefited from economic liberalization started in the early nineties. The advancement of the sector was marked by the entry of Suzuki Motor Corporation in collaboration with Maruti Udyog Ltd. On a similar note, Tambade et al. (2019) identified that the Indian auto- component industry will gain revenue of $200bn by 2026. With the demand for maintaining high- quality automotive firms and the pressure of cutting costs, the focus has shifted to auto-component firms. Also, the authors have stated that the auto component sector in India has a greater competitive advantage in terms of quality and cost that can ensure that global automotive companies prefer the Indian market over other markets. Additionally, & Kumar (2021) discussed that the auto-component sector of India serves the requirements of the global economy by fulfilling several inputs such as brake lines and engines, suspension parts, body and chassis and others. The following figure shows the export share contribution of the industry in terms of various parts.

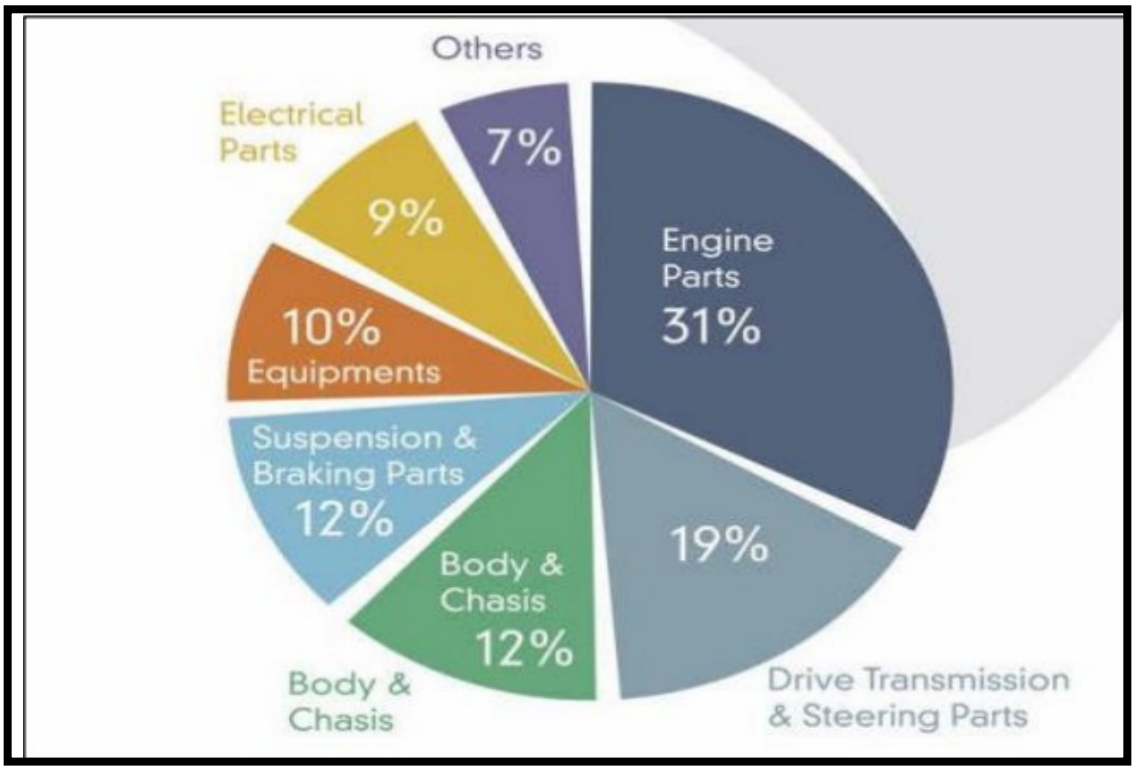

Figure 2: Export share of the auto component sector in India (Source: Jha & Kumar, 2021)

Similarly, Miglani (2019) opined that various investment and trade restrictions were removed to increase large-scale production in India. In recent times, the government has allowed 100% foreign direct investment in the automotive and auto component sector through the automatic route without the involvement of intermediaries. The authors have added that the industry is fully licensed. After China, India is the fastest-growing market for automotive

components and automobiles (Mukherjee, 2025). India is the global sourcing hub for auto components. According to the report by Mukherjee (2025), this emerging development is driven by advanced technology and cost competitiveness. Europe and North America are highly dependent on the Indian market for auto components at reduced cost. It is reported that China was the sourcing hub for many years. However, buyers search for alternatives to ensure resilience in the global supply chain. Car manufacturers prefer India for getting auto components for two prime reasons: cost competitiveness and great technology. Badri Narayanan, Sen & Srivastava (2025) stated that India's participation in the global value chain adds benefits for India as well as for global exports. Due to this, specialized auto-components are being produced by the suppliers and additional jobs are created, resulting in more opportunities for global exports. All of the previous studies provide similar opinions on the growth of the auto component sector of India with a focus on its ability to supply products at lower prices and high quality.

2.2 Scope of the Indian Auto Component Sector in the European Market

It is found from the research by Goulard (2020) that since 2018, China and the USA have engaged in a trade war because of the dispute, and European Union members have also suffered in different sectors. As China's car market has been suffering a lot, European car makers have also faced difficulties due to their heavy dependency on the Chinese market. It is also noted that France's two plants in China have to be dropped by Peugeot Société Anonyme (PSA). This has created a challenge in the relationship between the EU and China (Goulard, 2020). This can be a great opportunity for Indian auto components to build their relationship with European car makers and ensure better profitability and revenue in the future.

On the contrary, Simonazzi et al. (2022) stated that with the increased competition among EU car makers along with the pressure of emission regulations as per EU guidelines, they can enter into huge markets. This can be an opportunity for European car makers to develop partnerships with players in the Indian auto component sector and gain an advantage. Pandya & Leal-Arcas (2024) opined that the EU wants suppliers and partners to ensure equal participation in combating climate change-related challenges. Thus, the European automakers want Indian suppliers to perform in the same manner. This creates a greater opportunity for the Indian auto component sector to increase its contribution to sustainable development initiatives and gain more acceptance from automakers of the EU. They also added that the Free Trade Agreement between the two regions (EU and India) has allowed them to gain several benefits, including informed decisions related to climate change, securing access to raw materials and other sources and addressing non-tariff barriers.

Overall, the Indian Government is aiming to seek engagement from all levels and in this context, EU trade policies are in favour of India. Successful free trade agreements in favour

of EU trade policies can enhance the European economy and build competitiveness by reducing non-trade tariff barriers. Moreover, Poitiers, Bery, Chowdhry & García-Herrero (2021) stated that the prime minister of India has taken several steps in order to strengthen the relationship between India and the EU. This also complements India's traditional relationship with the major states of Europe. The Prime Minister's approach to reopening trade negotiations of the May 2021 agreement with the EU is a great initiative to deal with market access issues that have prevailed for many years. The perspectives of the mentioned authors vary in terms of initiatives introduced by the Government of India, increased competition among EU car makers the pressure to combat climate change challenges and the dispute between the USA and China fueling a weakening relationship between China and Europe.

2.3 Dependency of European Automakers on the Indian Auto Component Industry

The European automakers are facing several challenges, for which they have to depend on the Indian auto component sector to gain a competitive advantage in the long run. According to the views of Hojdik (2021), consumer demand, corporate strategy, capital issues, and supply chain problems are major challenges faced by automakers. The companies are prioritizing operational activities to ensure higher cost competitiveness and quality products. Supply chain problems are major issues due to which European automakers are witnessing complications from the global ecosystem, disruption in the global supply chain and liquidity problems from suppliers. The higher consumer demand due to an increase in middle-class people is also putting pressure to ensure final products with higher perceived quality.

Hojdik (2021) also added that issues with Chinese car components exports led to higher disruptions in the manufacturing practices of European automakers. Thus, dependency on the Indian auto component industry has increased. On the other hand, Pandya & Leal-Arcas (2024) stated that the current trade negotiation between India and the European Union plays another role in increasing the dependency of automakers on the Indian auto component industry. The aim behind this negotiation is to remove barriers, open up procurement markets, pursue sustainable development and ensure the protection of geographical indications. Overall, the current challenges and the trade relationship between the two regions increase the dependency. It can be stated that the authors' views vary concerning areas like enhanced trade relationships between India and the EU, increased consumer demands, and complications in the global ecosystem.

2.4 Issues Faced by EU Car Makers

Automotive companies are subjected to higher logistic risk. According to the views of Rokicki, Bórawski & Bełdycka-Bórawska(2024), the logistic management is subjected to rapid change. Without the use of standard technologies, companies can face uncertainties in their supply chain, leading to a lack of competitive advantage. Also, the COVID-19 pandemic has brought new challenges in terms of transforming existing supply chains into sustainable operations.

Without having much knowledge about auto component suppliers in India, European automakers might face challenges in ensuring and maintaining the sustainability of their supply chain. However, Simonazzi et al. (2022) discussed that regulation and financial challenges are quite common for EU car makers. It is analyzed from the study by the authors that EU emission regulations accelerated the production of hybrid and electric vehicles. This has also increased competition among car makers, and they are trying to develop partnerships with upstream and downstream in the value chain. Financial challenges are being witnessed as the government is trying to shield employment and domestic production by reducing investment in new technologies and plants. This has put a huge pressure on car makers to reduce costs without compromising quality. It is established that the major issues arising from the pandemic are recent issues whereas EU emission regulations and funding issues are common challenges faced by car makers for many years.

2.5 Issues That Exist in the Trade of Auto Components Between India and Europe

Sain & Singh (2024) have identified the trade relationship and related challenges between Europe and India. According to their view, India maintains a sound investment and commercial link with the EU. Both are part of broad-based trade and investment accords. They have highlighted some major challenges of this trade relationship, including market access issues, regulatory discrepancies, and non-tariff barriers. Differences in regulatory framework between the EU and India can have an immense impact on the trade of auto components due to varying intellectual property, safety standards, and environmental requirements, which can create complexities in investment and trade activities (Sain & Singh, 2024). Moreover, Kumar (2015) identified Brexit as a major factor creating challenges in trade relations between the EU and India. A short-term uncertainty was witnessed in trading activities as the United Kingdom decided to leave the EU, and for this, several countries, including India, shifted their attention from the UK to other EU countries. Also, the currency rate and debt rate in the UK and EU countries were highly affected after Brexit. Though there was a large scope for India in terms of heavy investment from Britain it was not possible to strengthen the relationship with the UK through a separate free trade agreement. However, India has the opportunity to build and strengthen its trading relationship with other EU nations.

Sain & Singh (2024) also added that complex licensing requirements, product standards and customs procedures can reduce the efficiency of trade activities between India and Europe. The evolving global economic condition can create another challenge for both regions if new areas of cooperation and adoption of technological advancements are not considered by the businesses participating in trade activity. On the other hand, Poitiers et al. (2021) identified environment and labour rights as other challenges in trade relationships between India and Europe. Since 2013, these two issues have remained unresolved. The efforts by the European Union to establish a carbon border adjustment mechanism seemed to be very critical in India.

Also, energy generation from renewable sources is cost-competitive in India. Though India has considered some ILO conventions on Child labour but still child labour remains a major concern for EU countries due to several cases in the last few years (Poitiers et al., 2021).

The European Union has set some emission targets for vans and new cars. As reported by CBI (2017), every new van or car sold needs to emit a specific quantity of CO2, and the maximum amount to be emitted from passenger cars is 130 grams. For this, pressure is created among Indian suppliers to develop lighter and more efficient auto components. Additionally, quality management standards, including ISO 9001 & ISO/TS 16949, are required to meet quality management criteria. Thus, the auto-component industry players need to consider quality system principles in their production process. This can be cost-intensive for the Indian auto-component industry, creating a major trade issue between India and the EU. Ballor (2022) added that consumer and environmental protection, the health and safety of citizens, and legislative harmonization are some of the stringent regulations implemented by the EU. They added that CE marking and its application inform the wider understanding of business experience and dynamic business-government relations across the EU region. Thus, Indian suppliers are required to consider a global approach to certification and testing.

2.6 Best Practices of Supply Chain Resilience and Strategies

Tambade et al. (2019) stated that to enhance supply chain resilience, global automotive companies are adopting global procurement practices for cheap and best supplies. The uncertainty and technological changes have led supplier firms to fulfil the demand on a real-time basis. Britsche & Fekete (2024) focused on supply chain resilience practices in the automotive sector. Britsche & Fekete (2024) stated that automotive companies need to consider the dependence of supply and production on the Chinese market, and factors of raw material procurement can help them to build resilience in the longer term. The uncertainty arising in the global supply chain can be dealt with through the implication of supply chain resilience theory. The concept of supply chain resilience was introduced in the research in 1998. As opined by Castillo (2023), resilience is the ability to adapt to change and prevail in a system for long-term survival. It is a multidimensional and multidisciplinary phenomenon used in every field. Supply chain resilience is defined as the ability of the supply chain to adapt, anticipate and recover from different types of disruptions, including pandemics, disaster events or similar unexpected events. Key pillars of the resilient supply chain are flexibility, visibility, collaboration and continuity. Through this concept, an organization can minimize the negative impacts of supply chain disruptions and devise appropriate strategies for the development of the business and enhanced customer satisfaction (IBM, 2024). In this context of increasing resilience of the supply chain of European car manufacturers, the theory is significant to ensure cost optimization, including sustainable practices and to adopt advanced technologies that in turn can ensure higher profitability.

Additionally, Britsche and Fekete (2024) have stressed designing standards, guidelines and central regulations for selecting suitable partners for buying auto components. Humanity and sustainability are two other aspects of supply chain regulations and guidelines that need to be complied with to ensure higher supply chain resilience. To enhance supply chain resilience, automakers need to collaborate with sustainable suppliers. According to the views of Arokiaraj, Ganeshkumar & Paul, (2020), Indian auto-component manufacturers are associated with sustainable procurement, the 3R (recycle, reuse and recover) method of recycling and Eco-product design to ensure environmentally conscious manufacturing. With this, EU car makers can have better quality vehicles, fuel efficiency and lightweight materials for the comfort and convenience of customers.

On the other hand, Stefanoni and Voltes-Dorta (2021) opined that firms investing in green technologies can get access to funding from varied sources easily. This funding, in turn, will allow them to develop advanced technologies to deal with greater competition. The importance of a greener supply chain can be understood in terms of enhancing a firm's profitability and reducing transaction costs. Overall, sustainability is the key to enhanced supply chain resilience. These perspectives depict the need for effective resource utilization and building relationships with stakeholders. As opined by Barney, Ketchen & Wright (2021), the Resource-based view theory is based on the fundamental concept that organizations are comprised of many resources and capabilities. According to this theory, each resource has a unique capability to provide an organization with the required competitive advantage. In case two organization can access a resource, the organization with more ability to exploit the resource can gain a more competitive advantage as compared to the other one. Overall, it can be stated that resources are the reason for a firm's failure or success. On the other hand, Freeman, Dmytriyev & Phillips (2021) opined that the resource-based view has a modern perspective in terms of the involvement of stakeholders in organization activities. The idea of sustainability is being incorporated into this concept to make organizations sustainable and strengthen stakeholder relationships. To ensure higher supply chain resilience among European automakers, this theory can provide a foundation for exploiting all available resources and keeping good relationships with stakeholders, including suppliers of auto components. This principle of this theory is similar to the views of Britsche & Fekete (2024) where it is established that automakers can gain efficiency in their practice by collaborating with sustainable suppliers.

According to the views of Subramaniam et al. (2019), the European Union’s directive on non-financial reporting encourages Indian organizations to demonstrate honest behaviour, inclusive governance and higher engagement with stakeholders in the context of outsourcing. On the other hand, Shenoi et al. (2018) stated some strategic actions against the risk associated with manufacturing industries in India. European countries generally focus on these strategies to deal with supply chain risks that may arise while working in partnership with Indian suppliers. These strategies are good communication, monitoring and controlling

mechanisms, long-term collaboration and advanced risk identification and management strategies. Overall, these strategies can help to mitigate risks associated with outsourcing from India.

2.7 Theoretical Framework

The following figure indicates the different dependent and independent variables associated with the study.

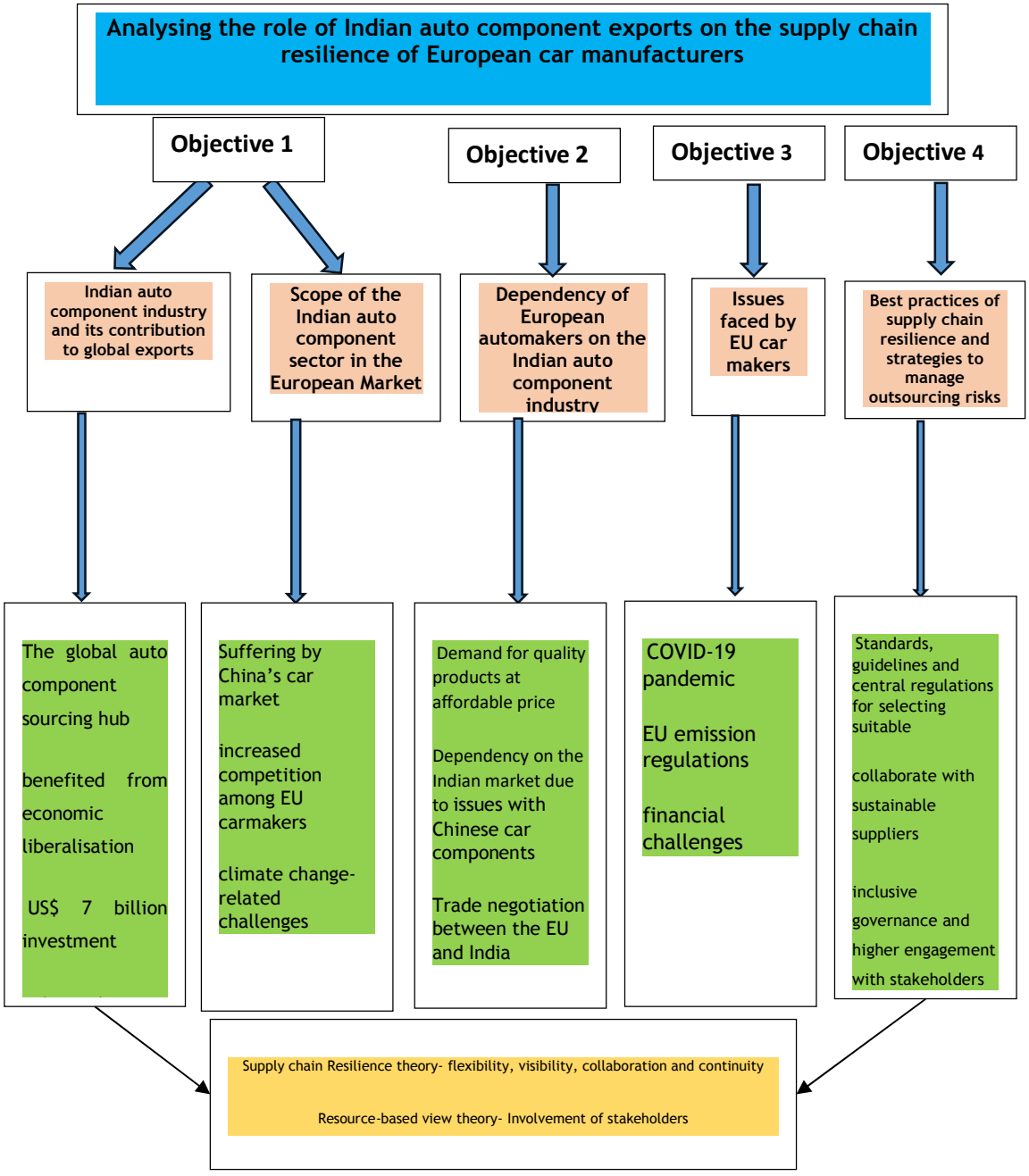

Figure 3 Theoretical Framework

The above figure indicates the relationship between the dependent and independent variables. Here, the independent variable is the Indian auto component sector, whereas the dependent variable is EU car makers and their supply chain resilience. The contribution from the Indian auto component sector towards EU car makers and the related challenges faced by both sectors are presented in the above figure. Some strategies were pointed out to deal with such challenges. The framework is designed to demonstrate the key themes generated from each objective and the findings generated from past studies. This also shows the role of supply chain resilience theories in the long-term continuity of businesses. Resource-based view theory proposes the involvement of stakeholders and it links with best practices of supply chain resilience such as collaboration with sustainable suppliers and adherence to standards set by the Government. Collaboration is a significant pillar of Supply chain resilience theory and this supports the best practice for managing outsourcing risks.

2.8 Literature Gap

From the above review, it is determined that there are very few studies that have highlighted trade issues between the EU and India about the trading of auto components. For example, Pandya & Leal-Arcas (2024) have stated trade issues in terms of geopolitical and energy issues associated with trading between the EU and India in general. They have not particularly focused on trading auto components. Additionally, the dependency of European automakers on Indian auto components has not been discussed well in previous literature. Hojdik (2021) discussed issues with Chinese car components and challenges faced by European car makers. However, the author did not directly focus on how European automakers are dependent on Indian suppliers. Also, best practices for enhancing supply chain resilience do not include any case study analysis from EU automakers. For instance, Tambade et al. (2019) focused on practices used by global automotive companies however, there is still a lack of evaluation on particular case companies from the automotive sector. Thus, the study aims to focus on trade issues present between India and the EU in the context of the trading of auto-components.

3 Research Methodology

3.1 Research Philosophy, Approach and Design

Interpretivism has been used to establish the degree to which the supply chain of Indian auto components is sustaining car manufacturing industries present in Europe (Alharahsheh & Pius, 2020). Due to the qualitative study on the role of Indian auto component exports on the supply chain resilience of European car manufacturers, an inductive approach has been used. This helped the data collection process to identify themes, explore phenomena and develop a conceptual framework (Okoli, 2023). As a qualitative approach was used to gather data, the

exploratory research design was proven to be suitable as this design involves collecting data through open- ended questions and very small participants (Olawale, Chinagozi & Joe, 2023).

3.2 Data Collection and Analysis Method

The interview method is used. Here, the data related to the role of Indian auto component exports on the supply chain resilience of European car manufacturers has been collected from the qualitative method. Thematic analysis has been used to analyse qualitative data gained through interview transcripts. The analysis started with developing codes from the interview transcript (Peel, 2020).

The study has adopted a non-probability sampling method involving a purposive sample. The researcher used their own judgment and a selective approach to select the participants for the interview (Pace, 2021). A sample size is 5 which is very small, the purposive sample is effective.

3.3 Research Choice and Strategy

Consent forms were used to take their consent to ensure voluntary participation in the research personal data has been kept confidential and their names were kept anonymous. Allowed to withdraw their name from the interview process at any stage. The major limitation is the use of quantitative analysis. The research did not perform any survey, for which no statistical analysis was used in the analysis. The participant size of 5 is another limitation. Because of these limitations, the quality of the analysis might have hampered the accomplishment of research objectives.

These criteria are pivotal to determining the parameters to be used for determining the characteristics of participants and research. The following table indicates these criteria.

Inclusion criteria	Exclusion criteria
Industry professionals from auto components and automakers with more than 5 years of experience	Industry professionals from auto components and automakers with less than 5 years of experience
Have sufficient knowledge about trade relations and issues between India and the EU.	Does not have sufficient knowledge about trade relations and issues between India and the EU
Must be from the EU and the Indian region	Professionals other than India and the UK

Table 1 Inclusion and exclusion criteria

4 Data Collection and Analysis

4.1 Introduction

This chapter develops a thematic coding table considering the interview transcript. A total of 6 themes have been developed that will be compared based on the perspectives of all participants. The themes have been developed using the keywords used for developing interview questions and research objectives. The findings will reveal the role of Indian auto component exports on the supply chain resilience of European car manufacturers and strategies that will be helpful to enhance supply chain resilience across the industry.

4.2 Coding Table

Respondents	Theme 1: The role of Indian auto component exports in the EU automotive industry	Theme 2: Regulatory issues that exist in the trade of auto components between India and Europe	Theme 3: Practices used to ensure effective compliance with European quality standards and trade regulations while sourcing from India	Theme 4: Logistical challenges present within India-Europe trade	Theme 5: Influence of transportation costs and tariffs, geopolitical disruptions, trade policies, and shortages of raw materials on supply chain efficiency	Theme 6: Strategies used by Indian auto component suppliers to enhance their offerings and strengthen cross-country partnerships with the EU
Respondent 1 manager of supplier, mange purchase, production	A diverse range of high-quality components and lower-cost	European safety, environmental, and quality standards, directives like RoHS (Restriction of Hazardous Substances) and EU customs regulations	on-site assessments and offering guidance on European regulatory requirements	infrastructure limitations and Variability in shipping times	Rising fuel prices and shipping rates limit market access, disrupting in disrupting established trade routes.	Advanced manufacturing technologies and developing robust contingency plans

Respondent 2 Sales manager ,salse	high-quality components, the country's advancements in manufacturing capabilities, government initiatives like 'Make in India'	Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) regulation	Regular audits and on-site assessments	Shipping delays and geopolitical conflicts	Balancing cost and speed, alteration in cost dynamics, halting production lines and increasing competition.	Implementing environmentally friendly practices
Respondent 3 Sales manager Salse,	Cost-effective and reliable supplier, good engineering support, skilled labour	REACH regulation, CE certification, and environmental standards	Review meetings, regular audits, third-party inspection	Delay in port clearance, and now there is a container shortage and customs paperwork	Higher transportation cost leads to increased landed costs and reduced competitiveness Shortage of semiconductors and steel Ukraine war, China policy, or	Focus more on quality, innovation, and fast response Training for international standards, better packaging, fast logistics

					Brexit	
Respondent 4 supplier , purchse , supplies,	Good technical capability, experience in engineering, availability of raw materials and cost-benefit	Emission norms, environmental norms, and safety certificates.	Quality checklist and audit process	Custom delays, port congestion, fluctuation in freight rate	Non-competitive price, unpredictable cost, fluctuation in price due to Ukraine war, expensive parts due to raw material shortage	automation, R&D and testing facility, consistent in quality and communication
Respondent 5 supplier Purchse , suplies,	Strong technical background, Trust, quality, delivery and cost-effective products	Strict norms for automation, R&D and testing facility	Audit, third-party inspection	Delays in Indian transport, costly air freight	Price-sensitive parts increased landed costs, raw material shortage, and tension due to the Ukraine war.	Communication, R&D support, long-term trust

Table 2 Coding table

The above coding table shows the findings against respective themes. The detailed analysis will be performed in the subsequent section

4.3 Thematic Analysis

Theme 1: The role of Indian auto component exports in the EU automotive industry

The first two participants have provided similar perspectives on the role of Indian auto component exports in the EU automotive industry. According to the view of both Participants " providing a diverse range of high-quality components at competitive prices." This implies the Indian auto component sector has a key role in terms of offering high-quality components at competitive prices. Also, India's advancements in engineering and electronics have become more valuable in incorporating advanced technologies. With a strengthened position in the auto component market, European automakers can produce high-standard products. As the recent "Make in India" campaign has fostered a favourable environment for exports and manufacturing, this is a greater opportunity to scale operations. As per Participant 3, "Many companies in Europe now see India as a cost-effective and reliable supplier". It indicates that Indian auto component parts are enabling EU automakers to gain a competitive advantage. On the other hand, the fourth participant stated "Indian exports are increasing, especially for parts like engine components, electrics , and casting items". This indicates the participant focused on technical capability as a major driver for increased exports. As per the fifth participant "Earlier, it was mostly about cost, but now it's also about trust, quality, and delivery". It indicates that trust, quality and delivery are the major drivers making Indian suppliers reliable. It is interpreted from the perspectives of the majority of participants that the cost and quality of auto components provided by Indian suppliers is the biggest advantage for the EU automotive industry giving them a higher competitive advantage in the current scenario.

Theme 2: Regulatory issues that exist in the trade of auto components between India and Europe

The first two participants have identified several regulatory issues, including environmental and quality standards, along with CE marking requirements. They stated "adhering to directives like RoHS (Restriction of Hazardous Substances), which limits the use of specific hazardous materials in electrical and electronic products". Additionally, they highlighted that a lack of consideration for customs regulations presented in the EU can lead to penalties and delays that might be disadvantageous for automakers. Participant 2 has emphasized the "Registration, Evaluation, Authorization, and Restriction of Chemicals" (REACH) regulation that aims to protect the environment and human health. Participant 3 also focused on REACH regulation, along with CE certification. He also highlighted how Indian suppliers struggle with testing and documentation. According to the fourth respondent, "Indian companies sometimes don't fully understand the fine details." It implies that sometimes it is difficult to understand the regulatory requirements for suppliers, as they have to face several regulations such as emission norms, environmental norms, and safety certificates. As per the fifth

participant, "Smaller companies in India sometimes struggle with full compliance or miss some documentation". This indicates the struggle to fully understand the regulations and the lack of awareness of these regulations creates challenges for the EU car makers. With a prime focus on RoHS and REACH regulations, it is inferred that Indian auto component suppliers need to avoid the use of hazardous substances and other chemicals that are harmful to humans and the environment.

Theme 3: Practices used to ensure effective compliance with European quality standards and trade regulations while sourcing from India

According to the views of the first two participants, “perform on-site assessments of Indian suppliers to verify adherence to quality management systems and regulatory standards". It indicates EU manufacturers pay attention to higher quality standards by performing on-site assessments and maintaining good relationships with suppliers. They also verify if the products meet EU directives or not. The participants also stated that the suppliers are provided with a clear framework regarding the responsibilities and obligations to be fulfilled by the Indian auto- component sector. According to the views of the third participant, regular audits, third-party inspection, Regular communication, and review are the keys to ensuring effective compliance with European quality standards. Similarly, the fourth participant emphasized third-party inspection reports and audit reports. The respondent said, "Before giving the order, they check the factory, audit process, and then give approval". As per the last participant, quarterly performance reviews and close communication with each other are the key aspects to ensure compliance with EU quality standards. Overall, as per the common views gained from the participants, it is determined that by conducting regular audits of the manufacturing process of Indian auto components and whether they are adhering to mutually stated regulations or not, EU car makers can ensure the quality standards in the components they receive from them.

Theme 4: Logistical challenges present within India-Europe trade

The first two participants provide similar views on logistical challenges present within India-Europe trade. According to them, infrastructure limitations can restrict the timely movement of goods. They said, "Port congestion or customs clearance can disrupt supply schedules". The Red Sea crisis was one of the geopolitical conflicts resulting in route congestion and diversion that had an adverse impact on the demand and supply of auto components. As per the perspectives of participants, the COVID-19 pandemic has brought many logistical challenges for Indian and European trade, including delays in port clearance and container shortages. Also, the cost of air freight is high, enabling only the sea route for export, making it quite slow. Participant 4 also has similar views regarding logistic challenges present within India and Europe. Considering the last participant's view, "Indian ports are busy and customs clearance can take time". As per the views of most of the participants, the major logistical

challenges that can slow down shipments and affect the business timeline are infrastructure limitations and customs clearance. This can hamper the overall manufacturing process leading to poor efficiency and productivity among car makers.

Theme 5: Influence of transportation costs and tariffs, geopolitical disruptions, trade policies, and shortages of raw materials on supply chain efficiency

It is determined from the perspectives of the first two respondents that the rising fuel cost can lead to an increase in procurement price that in turn can affect pricing strategies. Tariffs can change the cost dynamics of the import of auto components from India. A similar case has been witnessed in the case of U.S. tariffs on auto-related imports, where tariffs on auto components have resulted in operational adjustments. It is also found that trade policies, geopolitical disruptions, and shortages of raw materials might disrupt supply chain stability by increasing costs and causing the need for strategic adjustments. A shortage of raw materials can disrupt the manufacturing process by halting production lines due to increasing competition. Also, conflicts among countries can lead to changes in trade agreements and routes. These major uncertainties can reduce supply chain efficiency due to a lack of a risk management mechanism. Participant 3 stated, "If transport cost is high, then total landed cost increases, which reduces competitiveness". Also, currency rates and fuel prices impact the pricing, enabling EU countries to look for other countries for the import of auto components. The participant also pointed out that trade policy and geopolitical issues tend to have a higher impact on supply chain efficiency. In recent years, the Ukraine war, China policy, and Brexit have disrupted the supply chain, resulting in a shortage of semiconductors and steel. Participant 4 considered "If any war or political problem happens, prices go up and shipments are stuck". Another concern presented by the participant is that in case the China-Europe relationship becomes tense, EU countries will look for other suppliers like India. The last participant stated that any tariff on the EU side will increase landed cost and decision-making can be impacted due to small changes in fuel or shipping cost. Based on the majority of participants' opinions, fuel cost and landed cost are other supply chain challenges affecting the production of cars. A rise in these two costs leads to higher shipping costs which in turn affect the operational expenses of EU car makers.

Theme 6: Strategies used by Indian auto component suppliers to enhance their offerings and strengthen cross-country partnerships with the EU

From the perspectives of the first two participants "Maintaining transparent and proactive communication with European clients helps align expectations and address concerns promptly". It is observed that creating robust contingency plans can help to mitigate the political tensions that may arise between the two regions. Also, communication is the key to success in every collaboration, for which Indian auto component suppliers and EU automakers need to promote transparent communication to ensure higher collaboration. The first two

participants also considered the implementation of sustainable practices because of the growing demand for sustainable sourcing for enhancing their offerings and helping the EU car makers to build supply chain resilience in the long run. Additionally, the use of advanced technologies is the foundation for fostering innovation and quality. With quality products, the trust and confidence of EU automakers can be improved. In order to improve the supply chain and build a good relationship with EU partners, participant 3 identified innovation, fast response and quality as the major parameters. Training for international standards and better packaging, along with the establishment of joint venture offices in EU countries, will add value to suppliers. On the other hand, participant 4 focused on investing in automation and R&D, as well as hiring people who have knowledge of custom expectations and EU laws considered to be beneficial for supply chain efficiency. The last participant also stated that R&D and better packaging are considered as the keys to enhancing the supply chain. Also, focus must be given to solving problems quickly and promoting consistency and communication to build a great relationship with EU partners. It can be derived that communication is the key to an effective cross-country partnership between EU car makers and Indian auto component suppliers. With this, the coordination and transparency in trade activities can increase.

4.4 Discussion

Theme 1: The role of Indian auto component exports in the EU automotive industry

The qualitative findings reveal that due to economic growth, India has achieved a higher advantage in terms of engineering and electronics. This has helped to incorporate new and modern technologies in the manufacturing of auto components, enabling automakers to collaborate with Indian suppliers for auto components. Also, Indian suppliers are highly reliable, with which automakers can develop long-term relationships with them. Similar perspectives have been given by Tambade et al. (2019), highlighting the quality and cost-effectiveness of the Indian auto-component sector, encouraging global automotive companies to prefer Indian suppliers over other markets. The “Make in India” campaign is the key driver for manufacturing and exports. The focus of the campaign is to develop and manufacture products in India and increase foreign capital investments in Indian manufacturing companies. Miglani (2019) also stated that the Indian Government allows 100% FDI in the manufacturing of auto components and automotive companies. It can be deduced from the perspectives of the participants and previous literature, that India is a major hub for auto components, and the country's technical capability, cost and quality aspects of the components have led EU automakers to collaborate with Indian suppliers.

Theme 2: Regulatory issues that exist in the trade of auto components between India and Europe

The qualitative research findings highlight that the Indian auto component sector has to meet several norms and regulations, including emission norms, quality standards, safety certificates, CE marking requirements, REACH regulation, RoHS and others. As per CE marking requirements, auto component manufacturers have to follow EU-wide requirements and comply with technical documentation. Similar views have been given by CBI (2017) where it is determined that ISO 9001 & ISO/TS 16949 are essential standards that need to be met by manufacturers to ensure excellent quality. Ballor (2022) focused on the use of CE marking in maintaining good trade relationships. However, Poitiers et al. (2021) highlighted two major challenges that EU automakers may face in the context of trading auto components between the EU and India. India has been criticized earlier for environmental and labour rights-related challenges, as these issues have not been completely resolved since 2013. It indicates that there is a mix of views regarding India's approach to various norms, standards and regulations. Overall, this shows the need for auto component suppliers to be more conscious of the EU norms.

Theme 3: Practices used to ensure effective compliance with European quality standards and trade regulations while sourcing from India

It is observed from the findings that to encourage Indian auto component companies to comply with EU standards and ensure a good trade relation between the two regions, EU automakers perform on-site assessment, third-party inspection, design a clear framework for obligations and responsibilities, communication and quality performance review. In order to build supply chain resilience, Fekete (2024) stated that there is a need for design guidelines, standards and central regulations for choosing the right partner. Similarly, Shenoi et al. (2018) considered good communication as the key to reducing the risk associated with manufacturing companies in India. It means adherence to norms and regulations and a good communication strategy are the prime enablers for maintaining the enhanced relationship between India and Europe for the trading of auto components. It is also noted that participants are aware of ongoing sustainable sourcing demand, for which they recommend the use of environmental practices to build good partnerships and enhance supply chain resilience. Arokiaraj et al. (2020) research shows evidence of how Indian auto-component manufacturers deal with Eco-product design and sustainable procurement. This shows how sustainable sourcing and environmental practices have greater importance in complying with EU standards and ensuring continuous quality improvement. Such perspectives of interview participants have added more value to the research.

Theme 4: Logistical challenges present within India-Europe trade

The findings state that infrastructure limitations of India sometimes lead to delays in shipping. Also, busy congestion and customs clearance also lead to shipping delays. Additionally, the COVID-19 pandemic and the red crisis are some of the events posing logistical challenges to trade between India and Europe. Rokicki et al. (2024) highlighted the challenges posed by EU

automakers due to the COVID-19 pandemic in terms of transforming the entire supply chain; however, they have not shown any challenges posed to the EU and India's trade relationship due to the pandemic. In addition to this, Sain & Singh (2024) identified custom procedures as one of the key factors that reduce the efficiency of trading activities between India and the EU. Overall, it can be deduced that customs clearance can take time, and it may affect the future trade relationship between the regions.

Theme 5: Influence of transportation costs and tariffs, geopolitical disruptions, trade policies, and shortages of raw materials on supply chain efficiency

From the study, it is revealed that with an increase in fuel price procurement prices will increase. Shortage of raw materials and conflict between the two regions can also disrupt the production process, which in turn will affect the supply chain efficiency. Considering the tense situation between China and the EU, automakers are bound to depend on Indian suppliers. Also, uncertain events like China policy, the Ukraine war and Brexit are some uncertain events that brought unpredictable risks for both automakers and component suppliers. Similar views have been given by Kumar (2015), stating several ambiguities raised in Indian manufacturers' minds regarding the implications of trade in the post-Brexit era. The currency and debt markets took a toll after this event. Currency fluctuation and changes in fuel prices affect the price deal between buyers and suppliers which reduces competitiveness among EU auto makers. In addition to this, trade barriers and tariffs can increase the cost of production and limit market access. With limited market access, EU automakers may struggle to get reliable suppliers. With increased production costs, the price of final products may increase, leading to less demand among consumers. Overall, it can be stated that they may be required to make adjustments at the strategic level, leading to more complexities.

Theme 6: Strategies used by Indian auto component suppliers to enhance their offerings and strengthen cross-country partnerships with the EU

In trading relations, the impact of unavoidable situations like political tension cannot be avoided. However, as per the study, this poses the need for developing a contingency plan using which the supply chain efficiency can be enhanced and trade relations between two regions can be improved. Moreover, the quality of the auto components can be improved with more innovation and advanced technologies. Without exports of quality products, the trust and confidence of automakers with Indian suppliers will be affected, leading to a poor supply chain and trade relations. As per the RVB theory, it is understood that organizations are required to exploit the resources to ensure competitiveness (Barney et al. 2021). Thus, the use of technologies and the introduction of more innovation can help to utilize resources more effectively. Similarly, Stefanoni and Voltes-Dorta (2021) stated the use of green technologies in manufacturing to enhance the supply chain. However, they have prioritized this technology for gaining access to various funding sources easily rather than the enhancement of quality. As knowledge regarding EU norms and standards is not fully

understood by the Indian suppliers and their employees, there is a need for offering training regarding the same to enhance their knowledge and adhere to the norms for manufacturing and exporting better quality products. Consistency in quality and open communication are also key to a successful trade relationship between India and the EU. On a similar note, Shenoi et al. (2018) shared their views on communication and collaboration as the key strategic actions to enhance trade relations. From the supply chain resilience theory, it is also found that collaboration is one of the significant pillars that can support reducing supply chain disruptions. Overall, it can be stated that earlier research and current findings are similar in some contexts, like the application of technologies and fostering open communication to enhance transparency, which in turn, can build supply chain resilience.

4.5 Summary

The chapter has developed a thematic analysis with the help of a coding table. A total of 6 themes have been created, where the perspectives of each respondent were compared against each other. Then, an analysis has been made by comparing the views of authors from the existing literature and recent views from the interview participants. The findings and analysis show that quality products and cost competitiveness are the major contributions of the Indian auto-component sector. The challenges faced due to the trading of auto components can disrupt supply chain efficiency and increase cost, leading to a lack of competitive advantage among automakers. There is a need for making contingency plans and fostering transparent communication among both parties for a fair and effective trade of auto components.

5 Conclusion and Recommendations

5.1 Conclusion

The research aimed to identify the importance of Indian auto component exports on the supply chain resilience of European car manufacturers. The focus was to determine the challenges and issues associated with the trade relationship between India and the EU and devise strategies that can help mitigate the challenges and enhance supply chain resilience. To achieve the same, a primary qualitative research method was adopted followed by thematic analysis. The analysis method helped to produce descriptive and detailed data for which all stated objectives have been fulfilled. It can be concluded that due to economic growth, increased population and technological advancement, India has developed a great position in the export of auto components to many countries. European automakers are heavily dependent on this country due to the poor trade relationship between China and the EU along with the cost and quality advantage that they will gain by strengthening trade relationships with Indian suppliers. It is noted from the above research that challenges like

the COVID-19 pandemic, the Ukraine war, Brexit, high air freight charges and others sometimes lead to delayed transportation resulting in inefficiency in the supply chain. To deal with such challenges, it can be stated that investing in automation, maintaining transparent communication, compliance with norms and regulations and sustainable practices can be proven effective ways to improve supply chain resilience.

5.2 Linking with the Objectives-technological Challenges

Objective 1: To examine the contribution of Indian auto component exports and its role in shaping the European automotive supply chain

The objective has been met through reviewing existing literature and responses gained from interview participants. It is found that the middle-class population and increased population rate are the key drivers of increased demand for auto components. Cost competitiveness and advanced technology helped to increase exports of auto components across the globe. The findings suggest that the Indian auto component sector is popular for its quality products and cost competitiveness. Considering these aspects, the objective has been met.

Objective 2: To assess the extent to which European Automakers depend on Indian suppliers

The objective was met in LR and qualitative study. In LR, it is discussed that a poor relationship with China in trade can be the major reason behind increased dependency on Indian suppliers. From the qualitative findings, it is found that to gain cost competitiveness and trust in quality products, EU automakers are dependent on the Indian market.

Objective 3: To evaluate the issues that exist in the trade of auto components between India and Europe along with the logistical and regulatory challenges.

The challenges and issues related to the regulatory framework and logistics have been understood from qualitative research studies. Emission norms, environmental norms, REACH regulation, RoHS (Restriction of Hazardous Substances) and safety certificates are some of the EU guidelines and norms that need to be considered by Indian suppliers to ensure higher quality and standards in products. Considering the logistic challenge, it is found COVID-19 has brought major changes in transportation and shipping. The Red Sea crisis was also responsible for route congestion leading to delays.

Objective 4: To offer strategic recommendations to mitigate the challenges and enhance supply chain resilience.

It is found that to enhance supply chain resilience, both Indian auto component suppliers and EU automakers have to work collaboratively through transparent communication. They should focus on quality and advanced technologies for a seamless service. In LR, it is also

recommended to use sustainable practices to improve supply chain resilience. These findings indicate the accomplishment of the objective both in qualitative research and LR.

5.3 Recommendations

The following recommendations have been provided to enhance supply chain resilience.European automakers need to communicate clearly about their sustainability guideline and regulations to Indian suppliers. Through proactive and transparent communication, they can raise their concerns and gain support from the suppliers which will improve their resilience. Also, by continuously contributing towards sustainable initiatives and practices as per international standards, the auto-components suppliers of India will be able to ensure supply chain resilience in line with sustainability standards.

Investment in robotics, automation and adherence to Industry 4.0 solutions can help to strengthen the relationship between Indian auto-component suppliers and European auto makers. This, in turn, can improve the coordination and collaboration between both parties.

Indian auto-component suppliers need to engage in continuous quality improvement initiatives to gain the trust and confidence of European automakers. This will help to maintain supply chain continuity with automakers, resulting in a stronger supply chain.

EU automakers need to do continuous assessments and audits of the products and raw materials used in the manufacturing of auto components by Indian suppliers. Also, they need to provide a clear framework and instructions regarding all EU norms and encourage Indian manufacturers to provide training to employees regarding the same for a better approach.

5.4 Future Scope of the Research

Future studies can be done by considering a case study of a European automaker that has a partnership with Indian auto component suppliers to gain more insightful findings. Another research can be conducted focusing on a particular issue like regulatory or logistic challenges. The role of technology in strengthening supply chain resilience can be incorporated as a research study. Also, future studies can apply quantitative research methods and statistical analysis to gain more specific findings through numerical data. Mixed methods using both quantitative and qualitative studies can also be performed to collect more detailed data involving both descriptive and statistical data. Additionally, the sample size can be increased to 10 in qualitative research to obtain more varied perspectives.

5.5 Practical Implication

The findings of the study can be used by both professionals from the Indian auto component sector and EU automakers to enhance the quality of the final product. They can gain knowledge about the possible trade issues or the effect of major events like the Red Sea crisis,

the pandemic or Brexit on the supply chain efficiency. Overall, they can formulate well-organized strategies to enhance supply chain resilience and gain a competitive advantage in their respective sector.

5.6 Research Limitation

The study does not use any specific case study of the automotive company from the EU and the auto component company from India for which specific information may not be obtained. Also, no such specific trade issue has been considered to study its impact on the supply chain. Time and cost constraints have led to the application of a single research method involving qualitative interviews. Thus, the quantitative research method has been ignored for gathering data.

List of References

ACMA 2024.Export-Import analysis of Indian auto-component industry. Accessed 11 April 2025 https://www.acma.in/uploads/docmanager/ACMAEXIMReportFY24.pdf

Alharahsheh, H.H. & Pius, A. 2020. A review of key paradigms: Positivism vs interpretivism. Global academic journal of humanities and social sciences, 2(3),39-43.

Arokiaraj, D., Ganeshkumar, C. & Paul, P.V. (2020) Innovative management system for environmental sustainability practices among Indian auto-component manufacturers. International Journal of Business Innovation and Research, 23(2),168-182.

Badri Narayanan, G., Sen, R. & Srivastava, S. 2025 The potential impact of tariff liberalisation on India's automobile industry global value chain trade: Evidence from an economy-wide model. Foreign Trade Review, 60(1),7-32.

Ballor, G. 2022. CE marking, business, and European market integration. Business History Review, 96(1),77-108.

Barney, J.B., Ketchen Jr, D.J. & Wright, M. 2021. Resource-based theory and the value creation framework. Journal of Management, 47(7), 1936-1955.

Britsche, A. and Fekete, M. 2024. Supply Chain Resilience in the European Automotive Industry. Management Systems in Production Engineering, 32(3).

Castillo, C. 2023. Is there a theory of supply chain resilience? A bibliometric analysis of the literature. International journal of operations & production management,43(1),2-47

CBI 2017. What requirements should automotive parts and components comply with to be allowed on the European market? ACMA, 2024. Export-Import analysis of Indian auto-component industry. https://www.acma.in/uploads/docmanager/ACMAEXIMReportFY24.pdf

Alharahsheh, H.H. and Pius, A., 2020. A review of key paradigms: Positivism VS interpretivism. Global Academic Journal of Humanities and Social Sciences, 2(3), 39-43.

Arokiaraj, D., Ganeshkumar, C. and Paul, P.V., 2020. Innovative management system for environmental sustainability practices among Indian auto-component manufacturers. International Journal of Business Innovation and Research, 23(2), 168-182.

Badri Narayanan, G., Sen, R. and Srivastava, S., 2025. The potential impact of tariff liberalisation on India's automobile industry global value chain trade: Evidence from an economy-wide model. Foreign Trade Review, 60(1), 7-32.

Ballor, G., 2022. CE marking, business, and European market integration. Business History Review, 96(1), 77-108.

Barney, J.B., Ketchen Jr, D.J. and Wright, M., 2021. Resource-based theory and the value creation framework. Journal of Management, 47(7), 1936-1955.

Britsche, A. and Fekete, M., 2024. Supply Chain Resilience in the European Automotive Industry. Management Systems in Production Engineering, 32(3).

Castillo, C., 2023. Is there a theory of supply chain resilience? A bibliometric analysis of the literature. International Journal of Operations & Production Management, 43(1), 2-47.

CBI, 2017. What requirements should automotive parts and components comply with to be allowed on the European market?
https://www.cbi.eu/sites/default/files/pdf/research/563.pdf

European Commission, 2024. EU trade relations with India Trade and Economic Security. https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/india_en

Freeman, R.E., Dmytriyev, S.D. and Phillips, R.A., 2021. Stakeholder theory and the resource-based view of the firm. Journal of Management, 47(7), 1757-1770.

Goulard, S., 2020. The impact of the US–China trade war on the European Union. Global Journal of Emerging Market Economies, 12(1), 56-68.

Hojdik, V., 2021. Current challenges of globalization in the automotive industry in European countries. SHS Web of Conferences, 92,01015.

IBM,2024. What is Supply Chain Resilience? IBM.
https://www.ibm.com/think/topics/supplychainresiliency

India Brand Equity Foundation (IBEF), 2025. Auto Components, Growth of Automotive Components Industry in India. https://www.ibef.org/industry/autocomponents-india

Jha, P.K. and Kumar, D., 2021. India's participation in global value chains and some implications for economic and social upgrading: A case study of the automobile sector. Working Paper No. 156/2021.
https://www.econstor.eu/bitstream/10419/231372/1/1748629301.pdf

Kumar, K.A., 2015. India and the UK Trade Relations: The Future after Brexit and its Implications. Brexit and India, 202.

Miglani, S., 2019. The growth of the Indian automobile industry: Analysis of the roles of government policy and other enabling factors. Innovation, Economic Development, and Intellectual Property in India and China: Comparing Six Economic Sectors,439-463.

Mukherjee, S., 2025. India emerging as a global sourcing hub for auto components, says top executive of leading auto parts maker. The Economic Times.
https://economictimes.indiatimes.com/industry/auto/auto-news/india-emerging-as-a-global-sourcing-hub-for-auto-components-says-top-executive-of-leading-auto-parts-maker/articleshow/118902202.cms

Okoli, C., 2023. Inductive, abductive and deductive theorising. International Journal of Management Concepts and Philosophy, 16(3), 302-316.

Olawale, S.R., Chinagozi, O.G. and Joe, O.N., 2023. Exploratory research design in management science: A review of literature on conduct and application. International Journal of Research and Innovation in Social Science, 7(4),1384-1395.

Pace, D.S., 2021. Probability and non-probability sampling—an entry point for undergraduate researchers. International Journal of Quantitative and Qualitative Research Methods, 9(2), 1-15.

Pandya, D. and Leal-Arcas, R., 2024. India-EU Relations: Geopolitics, Energy and Trade. In: Research Handbook on EU Energy Law and Policy,299-321. Edward Elgar Publishing.

Peel, K.L., 2020. A beginner's guide to applied educational research using thematic analysis. Practical Assessment, Research and Evaluation, 25(1).

Poitiers, N., Bery, S., Chowdhry, S. and García-Herrero, A., 2021. EU-India trade relations: Assessment and perspectives. Directorate General for External Policies, European Parliament.

Prakash, J.V. and Nauriyal, D.K., 2020. Automotive Components Industry and Profitability Factors: Evidence from India. Vision, 25(2), 209-223.

Rokicki, T., Bórawski, P. and Bełdycka-Bórawska, A., 2024. Disruptions in the COVID-19 Pandemic in the Supply Chains of the Automotive Industry as Crucial for the Polish Economy. Sustainability, 16(1), 269.

European Commission 2024. EU trade relations with India Trade and Economic Security. https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/india_en

Freeman, R.E., Dmytriyev, S.D. & Phillips, R.A. 2021 Stakeholder theory and the resource-based view of the firm. Journal of management, 47(7), 1757-1770. https://journals.sagepub.com/doi/pdf/10.1177/0149206321993576

Goulard, S. 2020. The impact of the US–China trade war on the European Union. Global Journal of Emerging Market Economies,12(1),56-68. https://journals.sagepub.com/doi/pdf/10.1177/0974910119896642

Hojdik, V. 2021. Current challenges of globalization in the automotive industry in European countries. SHS Web of Conferences, 92, 01015. EDP Sciences.https://www.shs-conferences.org/articles/shsconf/pdf/2021/03/shsconf_glob20_01015.pdf

Ibm 2024.What Is Supply Chain Resilience?, IBM. https://www.ibm.com/think/topics/supplychainresiliency#:~:text=Supply%20chain%20resilience%20refers%20to%20a%20supply%20chain%27s,the%20impact%20of%20disruptions%20and%20ensurin g%20customer%20satisfaction.

Igwenagu,C.2016.Fundamentals of research methodology and data collection.

https://kangkholidblog.wordpress.com/wpcontent/uploads/2021/10/fundamentalsofresearchmethodologyanddatacollection.pdf

India Brand Equity Foundation(IBEF).2025 Auto Components, Growth of Automotive Components Industry in India: IBEF https://www.ibef.org/industry/autocomponents-india

Jha, P.K. & Kumar, D. 2021. India's participation in global value chains and some implications for economic and social upgrading: A case study of the automobile sector. Working Paper No. 156/2021. https://www.econstor.eu/bitstream/10419/231372/1/1748629301.pdf

Kalu, A.O.U., Unachukwu, L.C. & Ibiam, O. 2018. Accessing secondary data: A literature review. Singaporean Journal of Business Economics and Management Studies, 6(6),53-63. https://www.researchgate.net/profile/Alexanda-Kalu-2/publication/328067351_Accessing_Secondary_Data_A_Literature_Review/links/5c336cc045851 5a4c713fefa/Accessing-Secondary-Data-A-Literature-Review?_sg%5B0%5D=started_experiment_milestone&origin=journalDetail

Kumar, K.A. 2015. India and the UK Trade Relations: The Future after Brexit and its Implications. Brexit and India, p.202. https://www.researchgate.net/profile/Kulwinder-Singh-5/publication/348908026_Brexit_Economic_Implications_for_India/links/60158526299bf1b33e36d 19a/Brexit-Economic-Implications-for-India.pdf#page=248

Miglani, S. 2019. The growth of the Indian automobile industry: Analysis of the roles of government policy and other enabling factors. Innovation, economic development, and intellectual property in India and China: Comparing six economic sectors,439-463.

Mukherjee., S. 2025. India emerging as a global sourcing hub for auto components, says top executive of leading auto parts maker (no date) The Economic Times.

https://economictimes.indiatimes.com/industry/auto/auto-news/india-emerging-as-a-global-sourcing-hub-for-auto-components-says-top-executive-of-leading-auto-parts-maker/articleshow/118902202.cms

Okoli, C. 2023. Inductive, abductive and deductive theorising. International Journal of Management Concepts and Philosophy, 16(3), 302-316.

Olawale, S.R., Chinagozi, O.G. & Joe, O.N. 2023. Exploratory research design in management science: A review of literature on conduct and application. International Journal of Research and Innovation in Social Science, 7(4), 1384-1395.

Pace, D.S. 2021 Probability and non-probability sampling-an entry point for undergraduate researchers. International Journal of Quantitative and Qualitative Research Methods, 9(2), 1-15.

Pandya, D. & Leal-Arcas, R. 2024 India-EU Relations: geopolitics, energy and trade. In Research Handbook on EU Energy Law and Policy ,299-321.

Peel, K.L. 2020 A beginner's guide to applied educational research using thematic analysis. Practical Assessment Research and Evaluation, 25(1).
https://research.usq.edu.au/download/ed589b83215745c966482b8494a5c48efc3d43f7469d17711
37ac175cde7b1fe/457824/A%20Beginners%20Guide%20to%20Applied%20Educational%20Research% 20using%20Thematic.pdf

Poitiers, N., Bery, S., Chowdhry, S. & García-Herrero, A. 2021. EU-India trade relations: assessment and perspectives. Directorate General for External Policies, European Parliament.
https://www.researchgate.net/profile/Alicia-Garcia-Herrero/publication/371603839_EU-India_Trade_Relations_Assessment_and_Perspectives/links/648bbe5eb9ed6874a5b19186/EU-India-Trade-Relations-Assessment-and-Perspectives.pdf

Prakash, J. V., & Nauriyal, D. K. 2020. Automotive Components Industry and Profitability Factors: Evidence from India. Vision, 25(2), 209-223.

Rokicki, T., Bórawski, P. & Bełdycka-Bórawska, A. 2024. Disruptions in the COVID-19 Pandemic in the Supply Chains of the Automotive Industry as Crucial for the Polish Economy. Sustainability, 16(1),269.

Sain, N. & Singh, D. 2024. Trade Relationship Between India And The European Union. Synergy: International Journal of Multidisciplinary Studies, 1(3), 1-10.

List of Tables

List of Figures

Appendice

Appendix 1 Interview Questions Used in this Study

1. How do you perceive the role of Indian auto components exports in the EU automotive industry?

2. What the they key factors that make India most preferred region for importing auto parts?

3. What regulatory issues do Indian suppliers tend to face while exporting auto components to Europe?

4. How do European manufacturers ensure effective compliance with European quality standards and trade regulation while sourcing from India?

5. What are the most critical logistical challenges present within India-Europe trade?

6. How does transportation costs and tariffs influence supply chain efficiency?

7. What are the risks that EU automakers anticipates while sourcing from India?

8. How does geopolitical disruptions, trade policies and shortage of raw materials impacts supply chain stability within EU?

9. How can Indian auto component suppliers enhance their offering and enhance cross country partnership with EU?