

GLOBAL AUTOMOTIVE MARKET SUPPLY CHAIN REPORT

WHITEPAPER

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STUDY APPROACH & ACTIVITIES

ResearchFDI conducted an analysis of the Global Automotive market to assist a client in identifying domestic and international high-growth automotive suppliers that would consider the client region for future growth and expansion.

This supply chain report aims to outline the global trends and forecasts in the automotive industry and was focused on the clients' assembly plant, by analyzing identified suppliers by location, size, growth indicators and product categories to better position the client region in their investor attraction efforts.

Primary Activities:

- ▶ Provide an overview of the Global Automotive Market,
- ▶ Analyze current market overview and future outlooks,
- ▶ Describe key global market trends impacting the supply chain,
- ▶ Identify the global trade agreements impacting the supply chain,
- ▶ Provide a detailed supplier database for the client plant,
- ▶ Analyze the supplier database and provide insights to serve as a tool for future lead generation and investment efforts.



MARKET OVERVIEW



Global Automotive Market Current State

The automotive industry serves as a pivotal component in the economy of several major nations and contributes substantially to their gross domestic product (GDP). The growth of this industry over the years can be attributed to various factors such as an increase in disposable income and a rising interest in developing new vehicle technologies, including electric cars. Governments worldwide have also been providing incentives for the purchase of electric vehicles to address the pressing environmental concerns stemming from pollution from traditional automobiles.

Moreover, as consumer disposable income continues to rise, the industry is expected to shift towards producing more technologically advanced and pricier vehicles, further boosting the global market value of the automotive industry. Nonetheless, the sales of new passenger cars have experienced a decline since 2016, which can be attributed to economic uncertainties and various other financial factors. However, several trends may have contributed to this decline, including environmental concerns that are prevalent among the younger generation residing in urban areas, who often rely on public transportation.

The emergence of ride-sharing and car-sharing programs is also negatively affecting the demand for passenger cars. While predictions for 2020 pointed towards the stabilization of the automotive industry, the COVID-19 pandemic brought it to an abrupt halt. The spread of the virus has resulted in the closure of manufacturing plants, disruption of supply chains, quarantine measures for the automotive workforce, and an unprecedented loss of jobs.

The most significant drop in global passenger car sales has been recorded in South America and India, while incentives provided in Europe and the United States have helped in maintaining stable sales. However, stagnation in sales continues to persist. It is expected that countries such as China, Japan, and Korea will recover more quickly than the rest of the world, whereas growth in more mature markets such as the United States and the European Union has slowed down.

MARKET OUTLOOK

Forecast

The intricacy of the automotive industry implies that the full consequences of the pandemic on the industry and its supply chains will likely not be evident until later this year or the following year.

It is anticipated that original equipment manufacturers will encounter numerous challenges with their production and marketing strategies, as well as inventory management, due to the temporary cessation of sales, the release of pent-up demand, and modifications in vehicle ordering, pickup, and sales.

After the pandemic subsides, it is expected that numerous firms will modify their operational model to offer more work-from-home opportunities, resulting in fewer people commuting to work, which may further impact sales in the automotive sector. What the future holds is unclear, but even after the pandemic is no longer a factor, the outlook for the automobile industry appears bleak.

Industry Advancements

It is expected that the disruptions that will impact the automotive industry within the upcoming decade will surpass all disruptions that have occurred in the past five decades combined.

The following four trends are expected to shape advancements in the automotive industry.



Autonomous vehicles

Holding the automotive promise of massive social benefits and industry disruption, global revenues associated with autonomous vehicles in urban areas could reach \$1.6 trillion USD per year by 2023, more than double the combined 2017 revenues of Ford, General Motors, Toyota, and Volkswagen.



Connectivity

As a result of the mobility revolution, conventional vehicles will evolve into information enveloped platforms. From basic to complex experiences, vehicle connectivity is divided into five levels; general hardware connectivity, individual connectivity, preference-based personalization, multisensorial live interaction and virtual chauffeurs.



Electric Vehicles

Consumers are increasingly switching from internal-combustion engines to cleaner low-emission electric vehicles that utilize battery powered engines. As batteries become more cost effective, mileage capabilities increase and changing stations multiple, the sales of battery electric vehicles are surpassing that of other vehicles.



Shared Mobility

Urbanites already embrace ridesharing. By focusing on any way to become even more indispensable to existing customers, ridesharing companies are taking growth to the next level. As urbanites continue to shift away from car ownership, ridesharing will continue to increase as vehicle ownership declines.

MARKET OUTLOOK

Labour Shortages

There is no doubt that the automotive industry, like many other manufacturing sectors, is struggling due to the scarcity of skilled and available labor. This decline is the result of a complex set of societal and economic changes. A few core contributors to this crisis are demographic factors, societal factors, and education and technology in the industry.



Demographics

A key factor of the labour shortage is the presence of an ageing workforce. Over the past two decades, Canada has witnessed the proportion of its skilled manufacturing labour force age 55 or older triple. With the baby-boomers almost fully transitioned to retirement, labour shortages are expected to accelerate over the next decade, leaving the manufacturing industry with a growing void of skilled labour.



Social Factors

There are a number of common misconceptions about the career opportunities, potential for advancement, working conditions, and shift requirements of the sector. Due to these social factors, manufacturing jobs are not valued as highly as their professional counterparts, such that fewer students are orienting themselves towards a technical degree or training course.



Education & Technology

Due to the increased reliance on technology, individuals considering specialization in the industry may fear that their domain may soon become obsolete. Furthermore, there are misalignments between the training of young graduates and the skills required by manufacturers due to post-secondary education institutions' delay in adjusting their programs to reflect the trends of digitalization.

Automation

Tasks performed on a vehicle assembly line are relatively simple and therefore more likely to become increasingly automated over time. Manufacturing that relies on robotics is able to significantly increase the assembly process speed, thus reducing expenses.

OEMs will have to focus on recruiting and training their workforce to support this transition. The workforce will become increasingly more digitally oriented and technically agile than previous generations of autoworkers.

The automation process and an increase in the use of digital tools will bring greater flexibility to automotive supply chains. Suppliers that are able to change according to the demands more quickly and access their required materials more easily are more likely to be at the forefront of the automation process for automotive supply chains.

GLOBAL TRADE TRENDS

While global trends affect international trade in general, they also have a significant impact on the automotive industry and its supply chain.

Globalization

Despite trends of offshoring and outsourcing labor, various factors have made global production and trade a more hazardous endeavor. Therefore, many countries are turning to regionally manufactured products to avoid tariffs and other disruptions.

Geopolitical Changes

As new economic powerhouses gain importance in the international automotive value chain, the occurrence of trade disputes, higher tariffs and broader geopolitical uncertainty is on the rise.

Operational Changes

Certain operational practices can increase a company's exposure to supply chain risks. These risks can be seen both upstream and downstream of the supply chain and are considered at each level when adopting operational strategies.

Digitalization

The reliance on digital tools, growing interconnected supply chain and global flows of data offers more exposure to shocks spreading across the structure, and for suppliers to be hit by disruptions upstream or downstream.

TRADE AGREEMENTS

The Canada-United States-Mexico Agreement (CUSMA)

The Canada-United States-Mexico Agreement (CUSMA), which replaced the long standing North American Free Trade Agreement, preserves the tradition of tariff-free market exchanges between the three North American economies.

The automotive industry has been a strong trading sector in North America, as such, it was an essential element negotiated in the new agreement.

In the automotive industry, the rules of origin agreements primarily focus on determining the required content level for vehicles to receive preferential tariff treatment, which incentivizes production sourcing in North America and supports local job creation, as well as the prosperity of industries such as steel and aluminum.

The crucial elements of the new agreement that have an impact on the automotive industry are:

- ▶ The origination threshold for automotive components in North America has been raised from 62.5% to 75%.
- ▶ Stronger regional content requirements for core parts (i.e. engines and transmissions)
- ▶ 70% of steel and aluminum content to be produced in North America
- ▶ 40% of labor value content created by workers earning at least \$16 hourly

SUPPLIER DATABASE

Overview

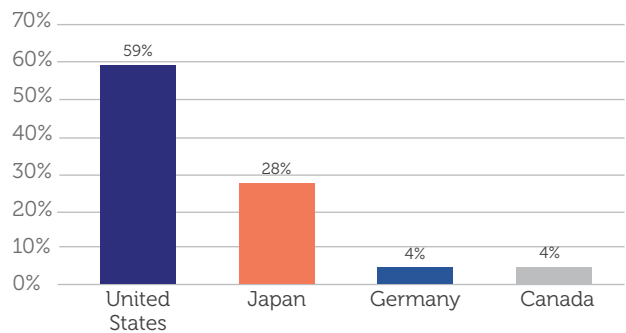
ResearchFDI employed a range of database tools to track the locations of assembly plants, sales volumes, and supplier relationships. Through the analysis of a North American assembly plant operating in the client’s region, our team was able to identify 75 suppliers based on their product category and components supplied.

To further enhance this data, ResearchFDI utilized S&P Global Market Intelligence to gather crucial information on company ownership, locations, employee numbers, annual revenues, and revenue growth. These insights will serve as a primary tool for future lead generation and investment attraction efforts.

Analysis

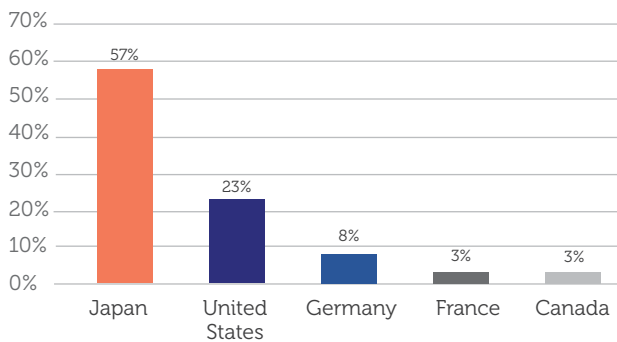
Our analysis revealed that the suppliers for the client’s assembly plant are spread across different regions. However, the majority of the suppliers are located in North America, with the United States being the most significant contributor. We also analyzed the two-year revenue growth of the suppliers and found that some have experienced significant revenue growth, while others have experienced a decline in revenue. This information can be useful for EDO’s looking to collaborate with suppliers that have a track record of growth and success and exhibit a high likelihood of expanding their operations.

Analysis by Supplier Plant Location



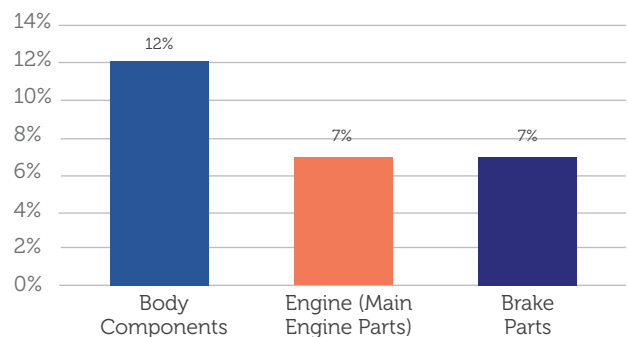
More than half of the client suppliers deliver components that have been manufactured in the United States.

Analysis by Supplier HQ Location



Suppliers headquartered in Japan, the United States and Germany supply over two thirds of the clients components.

Analysis of Suppliers by Product Category



Body components are the top product lines supplied to the client’s assembly plant.

CONCLUSION & RESULTS

ResearchFDI leveraged its expertise to develop a comprehensive supply chain report aimed at supporting the client's investment attraction efforts. Drawing upon its extensive industry knowledge, ResearchFDI provided a detailed analysis of global trends and forecasts in the automotive industry. To identify the current suppliers to the client's plant, ResearchFDI utilized its vast network of reliable sources and a sophisticated supplier database. The database contained information on suppliers' location, size, growth indicators, and product category, allowing ResearchFDI to conduct a thorough analysis of the market and identify the most relevant suppliers for the client's needs.

ResearchFDI identified 75 suppliers that could provide valuable insights to support the client's growth and expansion efforts. The report not only provided actionable insights but also served as a critical resource for the client's investment attraction efforts.

Key results:

- ▶ Well-structured understanding of the global automotive market, outlook and global trade trends,
- ▶ An analysis of the global automotive supply chain, outlining global trends and forecasts in the automotive industry to better position the client for future meetings with potential investors,
- ▶ A detailed list of 75 identified suppliers to the client plant by location, size, growth indicators and product category.

ResearchFDI is a specialized market research firm that works with economic development organizations and regional promotion agencies to identify and capture direct investment opportunities. Whether your goal is to learn more about existing trends, promote your region's strength or secure new corporate investment, ResearchFDI has a solution for you.

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