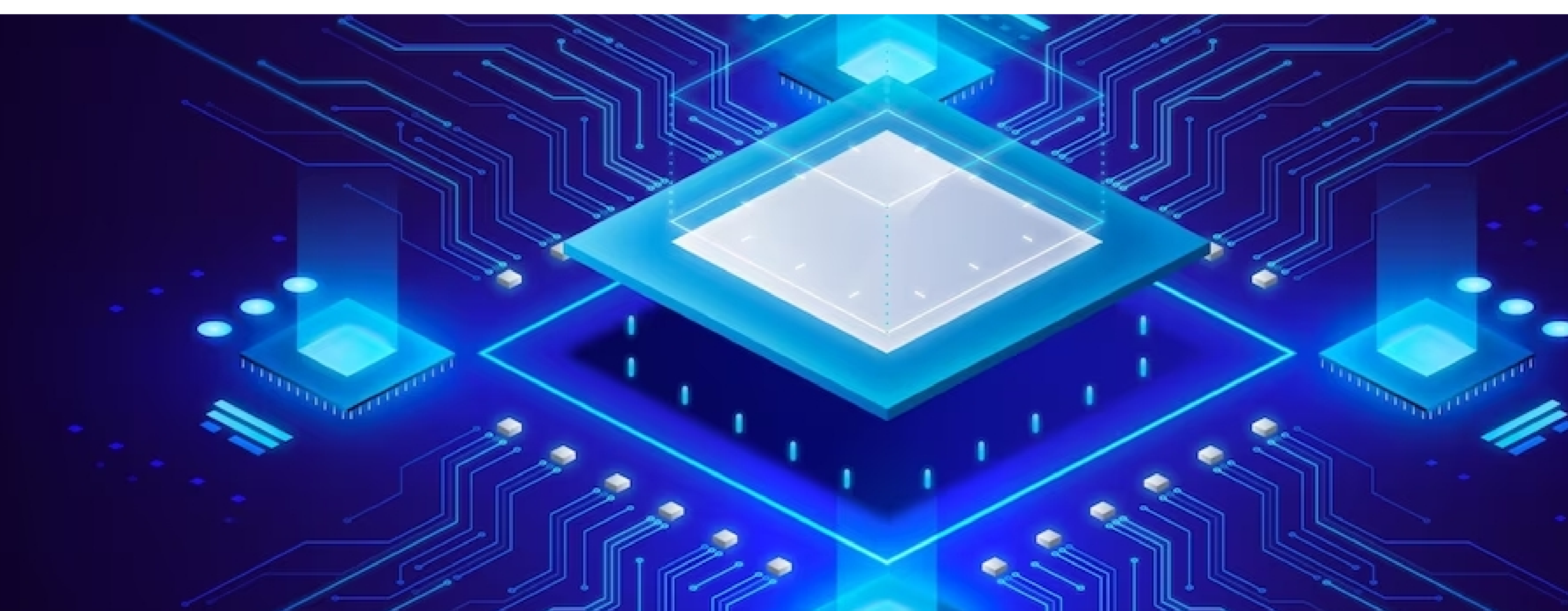


AUTOMOTIVE MANUFACTURERS ARE MAKING STRATEGIC DECISIONS IN ORDER TO INCREASE THEIR ACCESSIBILITY OF SEMICONDUCTORS CHIPS AND OVERCOME THE CHALLENGES IN THE SUPPLY CHAIN



Overview

During the earliest days of the COVID-19 crisis, automotive headlines focused on the massive drop in vehicle demand. However, for over a year now, supply-side issues have become more of a concern. Despite unexpectedly high vehicle orders, a lack of automotive semiconductors is pushing OEMs to shut down manufacturing lines or drop some well-liked features, such as heated seats, from their product lines.

Since then, the issue has worsened, and the recent decline in automotive revenues is primarily due to OEMs and Tier 1 suppliers' inability to obtain enough chips and their consequent need to delay the manufacturing of vehicles. The effects on the automobile industry have been more severe than on producers of laptops, white goods, and other products, who have also reduced production due to semiconductor shortages. A few high-end OEMs were able to protect their earnings by careful manufacturing and sales techniques created to maximize margins. However, this tactic can lead to a shortage of lower-margin automobiles and might result in sharp oscillations in the demand for automotive chips.

Further uncertainties have been added to the semiconductor supply chain and automotive demand due to Russia's invasion of Ukraine. For instance, Russia provides 25 to 30 percent of the world's palladium, a rare metal needed in semiconductors, while Ukraine provides 25 to 35 percent of the world's purified neon gas. Another issue is that many semiconductors are shipped by air, yet shipping rates have climbed dramatically while the volume that can be shipped has decreased. Another issue is that OEMs have lowered production quantities as a result of their inability to procure crucial vehicle components, such as wiring harnesses, which has increased uncertainty by reducing demand for some semiconductor-based components.

The automobile industry should consider adjusting its strategy in light of the persistent supply chain instability in the semiconductor industry. Companies can get started by concentrating on the ramifications of three crucial tasks that serve as the cornerstone of a strategic shortage management strategy: developing robust technology maps, establishing trustworthy short-term demand forecasts, and providing direction for long-term demand forecasts.

Client Challenges:

The client wanted to understand the list of strategic decisions taken by automotive manufacturers in order to increase their accessibility of semiconductor chips and overcome the challenges in the supply chain. The challenges include:

- Improved short-term and long-term demand planning
- Factors behind the escalating challenges in semiconductor supply
- Potential/addressable market size for semiconductors chips market
- The future growth rate for the required market
- Key factors influencing the semiconductor chip manufacturers
- Competitive analysis of leading market players
- Consumer behavior and buying patterns in purchasing the vehicles (specially their demand)

DBMR Approach/Research Methodology:

Data Bridge Market Research followed in-depth market research to provide valuable insights based on client requirements. DBMR's approach or research methodology for automotive manufacturer's strategic decisions is explained below:

- DBMR followed top-down and bottom-up market research approaches for extensive market analysis
- DBMR conducted primary and secondary research to collect market-related data. This data was then used to analyze global, regional and country-level analysis of market trends. This also include segment level analysis in each country mentioned in the report
 - Primary research includes e-mail interactions and telephone interviews with industry experts such as CEO, V.P., Marketing Managers, Sales Managers and Executives, Engineers and Developers in digital payment and online shopping industry
 - Secondary research methodology includes data published by government, annual reports, press releases, investor presentations of companies, white papers, certified publications, market-related associations and organizations and verified databases
- Company comparative analysis through product mapping and company profiling
- Analysis of key drivers, restraints, opportunities and challenges which can impact the overall market growth of semiconductor chip manufacturers

The above mentioned methodology was used to deliver results related to client requirements.

Outcome and Business Impact:

Data Bridge Market Research provided in-depth qualitative and quantitative market analysis with the help of market research methodology, AI-driven analytical tools, and technologies. The outcome of this research includes global, regional and country level addressable market size and growth rate for upcoming years. DBMR also provided factors influencing the semiconductor chip manufacturers and insights related to automotive manufacturers. Moreover, the analysis includes recent technological advancements and future scope for market-related product improvements. Company share analysis helped the client understand the global and regional market competition for their product offerings. The in-depth market size of products and solutions has helped the client understand the market potential in each market segment. Analysis of regional and country-level regulatory factors for launching new products and business expansion has helped the client to make different strategies before entering or investing in the untapped markets. DBMR delivered overall insights on futuristic trends of semiconductor chips to the client.

Conclusion:

Data Bridge Market Research was able to provide in-depth analysis with the help of market research methodology, AI driven analytical tools and technologies. All parameters required by the client were included in the research study. DBMR provided the client with actionable intelligence against its major competitors and changing market dynamics, which helped the client to analyze the company's growth changes in terms of penetration, technology, and future endeavors, enabling the client to make startetegic decisions to the accessibility of semiconductor chips with their supply chain

