

Strategies to Reduce Rising Automotive Production Costs

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The automotive industry is a highly competitive and rapidly evolving sector. The past several years of supply chain disruptions and the current shifting regulatory environment has made the industry uncomfortably dynamic. Consequently, many manufacturers are identifying areas for cutting costs, using more efficient and cost-effective materials, automating certain parts of the production process, and implementing lean manufacturing techniques. Developing and implementing a comprehensive cost-reduction strategy is also critical, including setting clear goals and objectives, creating a plan of action, and involving all stakeholders in the process. As Andrew Carnegie often said, “watch the costs and the profits will take care of themselves.”

Identifying Areas for Cost Reduction

To identify potential inefficiencies, automotive companies or even consultants hired by automotive companies must conduct an analysis of the production process. This in-depth analysis of the manufacturing process may take considerable time but will leave the manufacturer with an idea of what needs to be addressed. Gathering data is the first step in the process, including analyzing production schedules, performance metrics, equipment efficiency (OEE), and maintenance cycles. Analyzing this data will help the manufacturer identify and understand bottlenecks that delay the rest of the process. In addition to looking internally, manufacturers should also look externally to evaluate what other options there are for lower-tier suppliers. Supply chains have been stretched to their breaking point which have caused a dramatic increase in critical automotive suppliers, especially in the automotive industry.

Manufacturers would be well-served by identifying critical suppliers and diversifying their upstream risk.

Developing and Implementing Cost Reduction Strategies

Developing a comprehensive cost-reduction strategy is essential for any organization looking to cut production costs in the automotive industry. The first step in creating a cost-reduction strategy is setting clear goals and objectives. These goals should be specific, measurable, achievable, relevant, and time-bound (SMART). Identifying key metrics that can be used to measure progress towards these goals is also important. This will help the organization track progress and adjust as needed.

Once goals and metrics have been established, the next step is to create a plan of action. This plan should detail the specific steps that will be taken to achieve the goals and metrics, along with a timeline for implementation. It is important to involve all stakeholders in the strategy development process, including management, employees, suppliers, and customers. This will ensure that all perspectives are considered and that the strategy is aligned with the organization's overall goals and objectives.

Implementing the cost-reduction strategy is the next step, and it is important to be mindful of the techniques used to ensure its effectiveness. Communication and training are critical in this stage, as employees need to understand the goals, metrics, and actions that form the strategy. It is also important to monitor progress and adjust as needed, which can be done through regular reviews.

Creating a culture of cost-consciousness within the organization is also crucial for implementing the strategy effectively. This can be achieved through employee training, communication, and incentives that encourage cost-saving behavior. By fostering a culture of cost-consciousness, employees will be more likely to identify and implement cost-saving measures on their own, leading to greater cost savings overall.

Automation and Technology

Investing in new technologies and equipment that can improve efficiency and reduce labor costs is one strategy automotive manufacturers can use to cut production costs. Automation is one of the most effective ways of achieving this since it reduces the marginal cost of additional units produced. Automation of assembly lines and using robots for tasks like welding can help reduce the need for human labor, which can lower costs while also increasing efficiency and quality.

Given the clustering nature of automotive facilities, it's common to see regional wages rise much faster than national averages. In areas with many new plants like the American South or Monterrey in Mexico, new job openings are outstripping population growth. Open positions can only stay unfilled for so long before companies surrender and pay a higher rate. Without investments in automation, labor costs will eat every ounce of profit left in a company and spit out the bones to be acquired by a company capable of applying technology.

Outsourcing and Offshoring

Outsourcing and offshoring certain parts of the production process to lower-cost suppliers or manufacturing locations can also aid in reducing production costs. This may include sourcing raw materials and even manufacturing certain components. By outsourcing non-core functions, suppliers can take advantage of lower labor costs and access to specialized expertise and equipment. Offshoring to countries with lower costs of living can also help reduce production costs. However, it is important to consider the potential risks and challenges that come with outsourcing and offshoring, such as language barriers, cultural differences, and longer lead times for delivery. To mitigate these risks, it is important to carefully select and manage suppliers, and to establish clear communication and quality standards. Manufacturers who wish to keep their supply chain within their own

country may look for states and provinces with lower costs of living to establish plants.

Lean Manufacturing

Lean manufacturing is a cost-saving strategy that involves implementing techniques to reduce waste and improve efficiency. Lean manufacturing is not always a silver-bullet solution, but it does play a role in improving efficiency and reducing overall costs. One of the key components of lean manufacturing is the implementation of just-in-time (JIT) inventory systems. JIT inventory systems are designed to reduce the number of raw materials, work-in-progress, and finished goods inventory that a company holds. By having inventory delivered just in time for when it is needed, organizations can reduce the cost of holding and managing inventory.

Another key aspect of lean manufacturing is the use of visual management tools. These tools, such as Kanban boards, help to make the flow of materials and information more visible, allowing for more effective problem-solving and decision-making. Regular Kaizen events, which involve continuous improvement efforts led by employees, can also help identify areas for cost reduction and increase efficiency and revenue.

Materials Optimization

Materials optimization is a cost-saving strategy that uses lightweight composites, advanced alloys, and high-performance plastics. By using high-performance plastics and other alloys, manufacturers can reduce costs by replacing metal components in certain areas of the vehicle. This will also lead to savings for the consumer in the form of a lighter vehicle that consumes less fuel.

Process Optimization

Optimizing internal processes saves costs by analyzing and streamlining production processes to identify inefficiencies and reduce costs. Value stream mapping is a way to visualize the journey of a product or service, from its origin to its final destination in the hands of the customer. It's a tool used to identify and document every step in the process, including the good, the bad, and the ugly. When dealing with process optimization, value mapping can yield exponentially high dividends.

With a value stream map, it helps to easily spot inefficiencies, bottlenecks and waste in the process. Once these problem areas are discovered, companies can focus on increasing the value-adding steps, while eliminating or streamlining the non-value-adding steps. This can lead to shorter lead times, better quality, and increased productivity.

Value mapping can also be done with an eye toward the future. This illustrates the process as it will look after the improvements have been made. By comparing the current state map to the future state map, companies can see the expected improvements and the steps required to implement them.

Additionally, at the cell-level, using data analytics can help manufacturers gain insights into production performance, this can help identify areas where improvements can be made, such as reducing downtime, increasing efficiency, and reducing costs. By analyzing production data, manufacturers can identify patterns and trends that can be used to improve performance and reduce costs.

Conclusion

Reducing production costs is an ongoing challenge for manufacturers in the automotive industry but it must be a priority to thrive in the next decade. Identifying potential areas of improvement and implementing strategies can help manufacturers to reduce production costs. Hiring a consultancy can also be a great way to help automotive manufacturers develop strategies for reducing production costs, as it can provide manufacturers with expert advice and support in identifying areas for cost reduction and

implementing cost-saving measures. Our team of specialized operational consultants, works alongside automotive manufacturers and acts as a support structure, adding value from day one. Our advisors are former management at many suppliers and OEMs and are experts in production and operational efficiency. Contact us today to schedule a discovery call, or see our case studies for more information.