

Supply Chain Management of Mass Customized Automobiles

Modern production is facing the challenge of increasing customer value. This has propelled the production towards mass customization. Mass customization carries a lot of challenges; it has proved to be inappropriate for many companies which adopted it. The main reason of its failure is mismanagement of the supply chain, according to the needs of the production system. Thus, to run a successful mass customization, it is very important that suppliers are very well communicated. The coordination between suppliers and producers is rapid, and the logistic system is closely integrated.

Mass Customization in Automobile Industry

Automobile industry starts adopting mass customization by the end of the 20th century. However, unlike computer industry this industry fails to get the benefits of this system. Being a heavy product industry, there is more need of properly managed supply chains. There are different members of the supply chain in automobile companies (as shown in the figure) which need to be integrated according to the needs of the system. The purpose of this research is to help mass customized automobile companies to devise their supply chains efficiently; this can also help to solve problems of the members of the supply chain.



Members in supply chain of automobile companies.

Major Areas of Focus

Supply chain of mass customized automobile's companies faces challenges in different aspects. However, this research will address more profoundly the following aspects:

- Modularity
- Postponement
- Level of inventory stock
- Supplier producer relation
- Outsourcing

Different automobile companies handle issues related to these aspects using different strategies.

Case Studies Analysis

This work will focus on analysis of case studies of different automobile companies which have undergone mass customization. Particularly, it will investigate how these companies have managed the supply chains to deal with problems in the main aspects. Furthermore, to give a more precise address to these issues, there will be a quantitative analysis by using the data published in the annual financial and sustainability reports of the companies.

Future Prospects of the Study

The results of the study can help automobile companies to devise the policies related to the five aspects, outsourcing and relationship with the supplier. This can help to make their supply chain efficient, responsive and flexible.



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