THE ROLE OF STATISTICS IN SUPPLY CHAIN MANAGEMENT

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ABSTRACT

Supply Chain consists of a logistics system, which accompanies the production of products or services, from the provision of raw materials to the sale of the final product to consumers. Efficiency in supply chain management is of primary importance for organizations. Statistics is considered a necessary tool for achieving efficiency. It plays a key role in forecasting the demand, which leads to the reduction of inventory costs, efficient allocation of resources, disruptions avoidance, etc. The production process can be optimized through techniques such as Six Sigma. Likewise, statistical tests help quantify risk, while methods such as Monte Carlo simulation serve for its management. Statistics also contribute to distribution and logistics, providing insights from historical data. This leads to a reduction in transportation costs and faster distribution of products.

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