

## Analysis of Lead Time Delays in Supply Chain: A Case Study

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**Abstract :** Lead time is an important measure of supply chain performance. It impacts both customer satisfactions as well as the total cost of inventory. This paper presents the result of a study on the analysis of the customer order lead-time for a multinational company. In the study, the lead time was divided into three stages: order entry, order fulfillment, and order delivery. A sample of size 2,425 order lines from the company records were considered for this study. The sample data includes information regarding customer orders from the time of order entry until order delivery. Data regarding the lead time of each stage for different orders were also provided. Summary statistics on lead time data reveals that about 30% of the orders were delivered after the scheduled due date. The result of the multiple linear regression analysis technique revealed that component type, logistics parameter, order size and the customer type have significant impact on lead time. Data analysis on the stages of lead time indicates that stage 2 consumes over 50% of the lead time. Pareto analysis was made to study the reasons for the customer order delay in each of the 3 stages. Recommendation was given to resolve the problem.

**Keywords :** lead time reduction, customer satisfaction, service quality, statistical analysis

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