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Measuring the Impact of Rushed Delivery on Cost of Quality

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Abstract

Cost of Poor Quality is a key metric in any manufacturing facility, representing the balance of resources expended on quality against the performance of a product or service. It is theoretically possible to optimize the cost of poor quality through balancing spending on defect reduction against minimizing total cost and field failures; however, many quality practitioners subscribe to the philosophy of pursuing zero defects. Whether attempting to optimize the Cost of Poor Quality metric or minimize defects, it is always worthwhile to analyze the causes and drivers of defects. Recognizing factors that contribute to an increased defect rate in production can drive solutions, and quantifying the impact of those factors can justify engineering projects to prevent their recurrence. One such cause which can be measured is the impact of rushing deliveries on defect rates. In a production facility focused on customer deliveries, rushing can be driven by any number of causes, including rushing at the end of fiscal periods to force excess product deliveries and hit monthly, quarterly, or annual delivery targets, which is commonly referred to as the hockey stick effect. Analyzing the increase in defects during periods of rushed deliveries provides valuable insight into improving performance within a factory setting, and a factory case study in a highly regulated industry with significant cost incurred from field failures provides a valuable case study for analyzing this trend.

Keywords

Cost of Poor Quality, Total Quality Management, Defects, Quality Engineering, Quality Management System