

## Development and Analysis of a Customer-Based Product

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### Abstract

Today's average customer has many choices accessible to choose from for comparable items and administrations. Most customers make their determination dependent on an overall impression of value or worth. To stay competitive, organizations must figure out what drives the customer's view of significant worth or quality in a product. They should characterize which attributes of the products, such as dependability or performance, from the customer's impression of value and worth. In this paper, the Voice of Customer (VOC) is gathered and integrated into the design and manufacturing part of a particular product. House of Quality (HOQ) and Quality Function Deployment (QFD) are formulated for developing a customer-based product. Design of Experiment (DOE) is conducted using Response Surface Methodology (RSM) for identifying the optimum value of design parameters. Stress Analysis for the most influential part is analyzed, and the Lean Manufacturing process is presented for reducing the seven wastes.

### Keywords

VOC, HOQ, QFD, RSM, DOE.

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