

# **DEVELOPMENT OF AN EFFICIENT FUZZY INTEGRATED QUALITY FUNCTION DEPLOYMENT SOFTWARE - A CONCEPTUAL ANALYSIS**

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## **ABSTRACT**

Quality Function Deployment (QFD) is a methodology for building the "Voice of the Customer" into product and service design. It is a tool which captures customer requirements and translates those needs into characteristics about a product or service. In the Quality Function Deployment (QFD) process, decision making is an essential and crucial task. QFD is an extensive process that contains loads of data and involves complex calculations making it more tedious for designers and engineers to deal manually with this data. Moreover, since the traditional QFD exercise encounters some problems like - use of linguistic expressions and crisp values, fuzzy concepts are to be employed for better results. Thus a need for efficient fuzzy integrated QFD software is highly recognized in the QFD software market. Softwares can be suitably designed to meet market requirements only when the associated data are meticulously examined and customer needs are better understood. To this end, the paper aims to analyze the QFD process from both viewpoints – Traditional as well as Software so as to mine valuable information which can be used for the development of QFD software. It then talks about the shortcomings in the available ones and the features required. Finally it concludes with the discussion of fuzzy concepts and its incorporation in the QFD software. The result of this work will assist the software developers in understanding the QFD process and choosing the appropriate tools for development of QFD software.

**KEY WORDS:** Automation, Data, Fuzzy, QFD, TQM, Software.