

Customer-oriented PLM system design using QFD combined with ANP

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## Abstract

Product Lifecycle Management (PLM) is a strategic business system that allows different groups at dispersed locations to share ideas communicate better and access the information needed to develop new products and execute innovative processes. But it is important to develop more attractive system that will give increased customer satisfaction. Quality function deployment (QFD) has been widely used for many years, it is one of the structured methodologies that are used to translate customer needs into specific quality development. In addition, Analytic Network Process (ANP) is a powerful tool to use to determine the intensity of synergy effects among column variables. This study proposes a novel approach for translating the voice of customers into PLM product functions and modules requirements by QFD. Thus, through the ANP approach to incorporate the customer requirements, PLM functions and PLM modules systematically into the PLM system design phase. Finally, an illustrative example study is used to demonstrate that the integrating approach is effective.

Keyword : Product lifecycle management, Quality function deployment, Analytic network process