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Applying Knowledge Management to Build-to-Order Processes in Manufacturing and Service Companies

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Abstract

Knowledge management differs from expert systems as the latter are more attuned to integrating all available sources of data, information, and knowledge into a single, unified system of record. Capturing tacit and explicit knowledge and its use in streamlining business processes is also what differentiates knowledge management systems from expert systems. The purpose of this study is to define practical, pragmatic, and replicable approaches to knowledge management as it relates to the build-to-order and mass-customization strategies of manufacturing and services companies in the United States. The overall research question guiding this study is: How is knowledge management being used today to streamline and make more efficient the service strategies of manufacturing and services companies? The research is descriptive and empirical in nature because the primary data were collected using the survey method, through fact-finding techniques such as a questionnaire. The results show the integration of increasing role-based knowledge management in the workflow of a company. Knowledge management accelerates the exchange of aligned cost reduction to IT strategies for the use of knowledge to create a greater financial value. In this study, it was found that the degree of maturity of the company in the transition from cost-reduction strategies on the use of knowledge fails with respect to competitive strength. From this study, a knowledge-sharing maturity model is derived, which illustrates how the level and extent of knowledge exploitation in build-to-order and quote-to-order strategies have a long-term impact on financial performance. From these findings on how a company manages its knowledge in its build-to-order and quote-to-order strategy, a causal relationship emerges, which aligns well with a multi-stage maturity model. One of the main objectives of the study is to determine how the customer churn rate can be reduced. By optimizing business processes, companies can increase

customer satisfaction while reducing the Days Sales Outstanding levels over time. A better alignment of processes with customer requirements would help to achieve higher margins.

Keywords: Knowledge Management, Build-to-Order, Quote-to-Order

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