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ERP and the reengineering of industrial marketing processes A prescriptive overview for the new-age marketing manager

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Abstract

The implementation of enterprise resource planning (ERP) systems enables industrial marketing management to pursue the reduction of marketing cycle times and enhance customer service. The use of ERP systems is closely associated with business engineering (BE), which focuses on decades of research to benchmark optimal business practices. A descriptive overview of ERP strategic applications for industrial marketing is provided along with case examples. An illustrative example of the streamlined sales order process is highlighted as well as managerial implications. © 2002 Elsevier Science Inc. All rights reserved.

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1. Introduction

According to Hult [1], "reduction of cycle time in organizational processes is directly associated with improved performance, quality, and customer satisfaction." Furthermore, a commitment to a long-term organizational learning orientation is strongly related to efficiencies and customer service levels achieved via cycle time reduction [2]. No doubt, cycle time compression by the automation of marketing processes is considered a critical dynamic for gaining strategic advantage in today's industrial markets [3,4]. In order to obtain desired customer service levels, information technology (IT) has frequently been used as a valuable tool to assist management in improving supply chain performance. At the forefront of business automation and technology, enterprise resource planning (ERP) enables corporations to pursue the highest level of customer relationship management and is therefore a top-of-the mind topic in the minds of forward-thinking marketing executives.

An ERP system creates an enterprise-wide transaction structure by integrating key functions like manufacturing, finance, marketing, human resource management, and logistics together within a common information system platform [5–8]. While ERP systems can be used in many functional applications, the importance of lead time and order cycle time reductions have shown to be critical to optimizing marketing operations and overall supply chain performance [9].

The use of ERP is closely associated with business engineering (BE), the optimizing of business processes. In the context of the Fortune 1000 corporations, SAP is widely recognized as a market leader in comprehensive, multifunctional ERP systems based on longitudinal BE benchmarking [10]. The marketing processes modeled in SAP are based on 25 years of benchmarking on successful and unsuccessful companies.

Many companies implement SAP software to improve their business processes, cycle time being a major performance measure. Specifically, the SAP sales and distribution (SD) module addresses multiple cycle time issues, including customer service levels, cost control, and interfunctional coordination. In other words, the marketing processes were designed and streamlined based on extensive longitudinal analysis across industries. Obviously, as

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indicated earlier [2], a strong organizational learning orientation is crucial for industrial marketing managers to "rethink" their operations in this "brave new world."

In this paper, we will provide illustrative insight and case examples as to how an ERP system can be used as a tool to help improve the performance level of a supply chain network by helping to reduce cycle times. Given how much is at stake for industrial marketing management, with obvious consequences for research in this field, this prescriptive overview will feature several areas of critical concern in real business examples.

We will discuss the nature and strategic value of "business-engineered" marketing processes in SAP including a specific example of sales order processing and the associated efficiencies. Finally, recommendations for industrial marketing management are provided along with suggestions for future research.

2. ERP and enhancing supply chain performance

As alluded to earlier, technology has accelerated the delivery process in several ways including the automation of various integrated information management approaches like the adoption of an ERP system. Effective implementation of an ERP system is aided with collaborative behavior designed to allow different functions or entities to share valuable information and collaborate in strategic planning sessions. In the context of marketing operations, effective collaboration with other internal corporate functions and external supply chain partners has shown to decrease order variation, curtail order size fluctuations, and reduce inventory levels. For example, Heineken USA implemented collaboration throughout their supply chain and cut their delivery time in half. Prior to implementation, the average time from order to delivery was 8 weeks. However, subsequent to collaboration, the time from order to delivery was reduced to an average of 4 weeks [11].

Improved cycle times is one way to help achieve the level of service desired by today's customers. Better cycle times have been shown to lead to quicker order fulfillment, improved demand forecasting, and enhanced inventory management [12]. As a result of compressing the flow-through time of the entire supply chain, reduced cycle times can positively impact the marketing strategy of the company by creating a differential advantage in the marketplace. Using an ERP system to integrate the marketing and logistics functions together allows for improved coordination and information sharing between the two functions, helping to create a seamless delivery process to the customer. The seamless delivery process coupled with the economic efficiencies and differential advantages gained by reduced cycle times can lead to a sustainable competitive advantage in the marketplace if implemented correctly.

3. Cross-functional integration vs. hierarchical, functional orientation

Enterprise systems replace information systems built to support individual functions or departments. The old legacy systems often consisted of custom software pieced together on mainframes. With their own isolated databases, these systems effectively kept information from flowing easily to other functions. Information would travel up the organizational hierarchy in aggregate form. Other functions might need to reenter the original data, with the added risk of data inaccuracy, interpret the aggregate data, or develop a custom link to the other system. This functional orientation inhibited the flow of information and contributed to the degradation of cycle times.

BE focuses on restructuring the flow of work, information and materials to reduce marketing cycle time, lower costs, and improve quality. Implementing ERP, business processes become business-engineered. Enterprise systems are designed to support integrated, crossfunctional processes. The company adapts its processes to those modeled by the software. Indeed, one of the primary reasons to adopt ERP is to achieve the benefits of BE. The following case excerpts illustrate how a variety of marketing processes can be improved by implementing ERP.

4. Applied Micro Circuits (AMCC)

AMCC employs 350 people and has six regional sales offices as well as sales representatives worldwide. The company develops, manufactures, and markets application-specific standard products (ASSP) and application-specific integrated circuits (ASIC) for the communications, computer, instrumentation, and military industries. AMCC products are highly technical and custom configured, requiring the company to maintain close contact with customers throughout the product development process.

Customer service and integrating processes in SD and production were the two main reasons behind AMCC's reengineering effort. Explains Buck Marty, vice president for business services at the high-tech firm: "Our customers do not get much lead time from their customers. They need rapid response time without carrying huge quantities of inventory. They want us to provide plenty of added value from a technical and service standpoint and at the same time deliver competitive pricing. We wanted to modify our processes to meet our customers' needs by, for example, reengineering the book-to-ship cycle for more responsiveness to the customer."

To meet the needs of its customers, the company has to manage a complex supply chain with more than 100 customers, many different product types, and many different combinations of parts for those products. AMCC targeted IT to help it reengineer its complex chain of processes.

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