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A model for exploring the impact of purchasing strategies on user requirements determination of e-SRM

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Abstract

Recently, business managers have touted supplier relationship management (SRM) as the next core competency and a source of competitive advantage. This suggests the need of an e-SRM installation. SRM domain involves relatively wide and complex business processes and without the support of IT, it would not be accomplished easily. As the Internet became popular and many firms were quick to launch e-SRM, however, the effect went farther than was expected. In particular, the fundamental is in the determination of user requirements, commonly considered to be the key to the success of system installation and often inappropriately planned. This study involves a strategy-based planning process to guide user requirements determination. Moreover, the implementation step in this process, identification of supplier selection criteria, has rarely been considered and the literature has only discussed it isolatedly for the choice of a supplier. Basically, the process includes three steps: define purchasing strategies, identify supplier selection criteria, and determine system requirements. Empirical results have indicated that *purchasing strategies* significantly influence the performance of user requirements determination.
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Keywords: Information requirements determination; Supplier selection criteria; Supplier relationship management; Purchasing portfolio model

1. Introduction

The rapid growth of the Internet has fundamentally reshaped business structure and offered unprecedented business opportunities for e-commerce (EC). According to Forrester Research, business-to-business (B2B)

e-business will soon reach $1.3 trillion, outpacing business-to-consumer (B2C) by a factor of 10. The compound average growth rate is estimated to reach a relatively high rate about 90%. Supplier relationship management (SRM) has been recognized as an important issue in B2B EC. The traditional view focuses on leveraging transaction-oriented processes to achieve the lowest purchase price while assuring supply. The fundamental assumption is that trading partners are interchangeable and encouraged to reduce

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cost due to fierce competition. Tremendous changes have occurred in supplier management practices during the last decade [16,35]. In the automobile sector, for example, all three U.S. manufacturers and most of their European competitors have launched programs to decrease their level of vertical integration, reduce their total number of direct suppliers, and move toward publicly declared strategic partnerships. This practice was basically built on a foundation of trust and commitment from trading partners [29].

Consequently, future competition will not only be firm-to-firm, but also strategic partnership-to-partnership [12]. However, while creating new value, partnerships are costly to develop, nurture, and maintain. In addition, they are risky, given the specialized investments they require. However, managers and business consultants believe that effective supplier relationships will offers firms competitive advantage [27]. In essence, the SRM domain involves relatively wide and complicated processes, including the management of numerous suppliers of raw material, parts, components, sub-assembly, etc., the delivery of various products' quantity, value, and quality, and suppliers' reputation, financial condition, and technical ability. The Internet has offered tremendous opportunities for developing web-based online interactive systems to support the SRM process (e-SRM) [9,19,30]. Many firms rushed into e-SRM but the results were less than expected [1], probably due to lack of strategic planning to guide information requirements determination [4,15,34].

This approach can be described as that a type of purchasing relationship with suppliers is once developed for a firm and as a result, shifts the paradigm of organizational buying behaviors and further creates a need for understanding the detailed procurement process. Obviously, purchasing strategies will have fundamental impact on requirements determination of e-SRM. Therefore, the solution proposed here aims at setting a well-planned and unique SRM strategy and further, upon which the determination of e-SRM system requirements is based. This would assure that system requirements is guided by or matched with marketing strategies of relationship building. This solution process basically includes three steps: define purchasing strategies, identify supplier selection criteria, and determine system requirements. Existing literature has not discussed the important role of

purchasing strategy in developing an effective e-SRM. The further implementation step for this process, such as identifying supplier selection criteria, was only discussed isolatedly for choosing a specific supplier. There has been a lack of an integrated approach in literature to provide a specific requirement determination process of e-SRM. The techniques used to analyze the steps were also discussed. Finally, this framework was examined by an empirical study to understand its practical applications.

2. Literature review

2.1. IT planning and requirements determination

The major reason that IS does not meet user expectation is a failure to obtain the correct and complete set of user requirements. The process involves gathering and modeling information about the system and has been recognized as the most difficult part of system development [13,18,32]. Difficulties in requirements determination arise from [8]: cognitive issues resulting from human understanding; the variety and complexity of the requirements; the complex patterns of interaction among users and analysts in defining requirements; and political or behavioral issues resulting from unwilling to provide the requirements. My research focuses on problem structuring issues; i.e., the unstructured problems of the SRM domain.

A number of techniques have been proposed for developing the IS plan. The focus of these techniques is mainly on the issue of organizational information requirements analysis. The model developed by Bowman et al. [3] stated that strategic alignment should precede the determination of organizational information requirements and subsequent resource allocation. The stimulus for systems development has typically been considered as an organizational problem. The analysis can be seen as a four level pyramid structure, with organizational strategies at the top, business processes at the second, tasks at the third, and information at the bottom [20,37]. Thus, the review of these techniques would provide the theoretical basis on developing the proposed development framework of e-SCM. In sum, the above discussion illustrates an important linkage that an