Strategic Management of Network Resources: A Case Study of an ERP Ecosystem

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ABSTRACT

This paper applies the resource-based view (RBV) theory to a case study aimed at identifying the complementary resources among partners in the ERPCorp ecosystem of development and implementation of Enterprise Resource Planning (ERP) for small and medium enterprises (SMEs) in Denmark. The paper analyzes these resources in terms of being valuable, rare, inimitable, immobile, and non-substitutable in the ERP solutions market. The study found four key complementary resources that contribute to competitive advantage, namely: (1) ERP core product; (2) horizontal add-ons; (3) vertical add-ons; and (4) customer specific add-ons. The paper examines the potential impact of an ERP vendor’s business development strategy that includes changing the ERP solution from a horizontal to a vertical focus, and increasing the partner certification requirements to be part of the ecosystem. The evidence suggests that the strategy, if implemented successfully, maintains competitive advantage for the ERPCorp ecosystem through effectively combining resources and leveraging lock-in and network effects.

Keywords: Competitive Advantage, Ecosystem, ERP, Resource-Based View, Strategic Management

INTRODUCTION

In the Enterprise Resource Planning (ERP) solutions market for small and medium enterprises (SME), a handful of large vendors as well as a substantial number of smaller local vendors compete for market share. While smaller ERP vendors often operate within a certain industry and therefore possess both the industry insight and knowledge about the relevant enterprise system to take on the task of each implementation on their own, larger vendors that want to sell their solutions to a broader range of industries often enter into partnerships to extend their reach into the market. The network created by these collaborative partnerships between and among firms is sometimes referred to as an ecosystem (Adner, 2006; Iansiti & Levien, 2004), and this ecosystem as a whole plays a critical role in determining whether the firms, individually or as a network, can be competitive in the marketplace. The paper examines how one of the largest ERP vendors utilizes its network of partners as a key complementary resource that enables the firm to be competitive in the market place. The analysis will focus on

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the company’s operations in Denmark where it enjoys a dominant position in the local ERP market for SMEs.

Previous research in the field of strategic management studies has looked at how firms evolve to obtain and maintain competitive advantage by looking at the firm’s business and innovation strategies and applying strategic management theories (Barney, 1991; Drucker, 2002; Mata, Fuerst, & Barney, 1995; Porter, 1985, 2008). According to Mahoney and Pandian (1992), strategic management studies are influenced mainly by three broadly categorized analytical themes: (1) industrial organization literature, such as Porter’s “Five Forces Model”, which looks at opportunities and threats with respect to the intensity of competition (Porter, 2008); (2) organizational economics, such as first mover advantage (Lieberman & Montgomery, 1988); and (3) the resource-based view (RBV) theory, which identifies a particular firm’s attributes that impact the firm’s competitive position (Barney, 1991).

The research in the paper, however, will not apply any of the first two analytical approaches outlined above because the ERP solutions market is considered far from being in its infancy stages (Markus & Tanis, 2000), so organizational economic theories like the first mover advantage is no longer relevant in relation to determining competitive advantage. Additionally, although the Porterian view of competitive advantage has made a significant contribution to our understanding of strategic management, it is primarily concerned with the analysis of the competitive environment (Porter, 2008) surrounding the company, rather than resources of the individual company.

Therefore, this paper focuses on the third category and aims to contribute to the application of RBV to ERP ecosystems. As more vendors enter the SME market, it becomes increasingly relevant to evaluate the competitive status of ERP Corp’s ecosystem. The paper thus attempts to answer the following questions: What are the key complementary resources available in the ERP Corp ERP ecosystem; how are they distributed; how do they enable the ecosystem to obtain competitive advantage; and what is the impact of the current business development strategy to the resources? The paper addresses these questions by identifying and analyzing the key complementary resources in terms of being valuable, rare, non-transferrable, non-substitutable, and inimitable (Wade & Hulland, 2004). The paper is structured as follows: (1) an overview of previous research regarding competitive advantage in ERP ecosystems; (2) a description of the methodology; (3) a case study analysis of key resources and discussion of findings; (4) conclusion; and (5) implications for future research in ERP ecosystems.

LITERATURE REVIEW

The RBV Theory

According to RBV, a firm has the potential to identify and take advantage of its resources, consisting of assets and capabilities. “Assets are defined as anything tangible or intangible the firm can use in its processes for creating, producing, and/or offering its products (goods or services) to a market” (Wade & Hulland, 2004, p. 109). On the other hand, capabilities, which are repeatable processes that markedly enhance the value of assets through the combination of resources with organizational routines, include managerial and technical skills, as well as systems development or integration processes (Andreu & Ciborra, 1996; Wade & Hulland, 2004). The firm is able to utilize these resources to create strategies to respond to market forces that shape the competitive environment (Andreu & Ciborra, 1996; Barney, 1991).

The RBV theory proposes that in order to achieve competitive advantage, managers employ economic rationalities and make strategic decisions towards the development of core capabilities in order to maximize “rent” (Andreu & Ciborra, 1996; Barney, 1991; Mahoney & Pandian, 1992). Wade and Hulland (2004) summarized the various terms used by RBV researchers (Andreu & Ciborra, 1996; Barney, 1991; Mahoney & Pandian, 1992) into six resource attributes: valuable, rare,
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