Chapter 17
E-Business Strategy and Firm Performance

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ABSTRACT

Electronic business (e-business) has been popularly lauded as "new economy." As a result, firms are prompted to invest heavily in e-business related activities such as supplier/procurement and online exchanges. Whether the investments have actually paid off for the firms remain largely unknown. Using the data on the top 100 e-business leaders compiled by InternetWeek, this chapter compares the leaders with their comparable counterparts in terms of profitability and cost in both short-run and long-run. The authors find that while the leaders have superior performance based on most of the profitability measurements, such superiority is not observed when cost measurements are used. Based on the findings, this chapter offers managerial implications accordingly.

INTRODUCTION

The rapid expansion of e-business we witnessed in the late 1990s was nothing short of a spectacle. It seemed that almost everyone was talking about it, and every firm was eager to invest in it, hoping to take away a slice of the pie. Andy Grove, Chairman of Intel Corp, stated in 1998: "Within 5 years, all companies will be internet companies or they would not be companies." (Intel, 2000). Merely mentioning of the "e" word could mean multi-million dollars. The case at hand was Zapata Corp, a fish oil processing company, co-founded by former US President George H. W. Bush. The company announced on December 23, 1998 that it would transform itself into an internet portal to compete with Yahoo!, Lycos and alike. Immediately following the announcement, Zapata's stock price skyrocketed nearly 100% from 7.19 to 14.25 with trading volume at more than 2,000% higher than normal, according to Yahoo! Finance. Academic researchers rushed in and concluded that "a new economy was born."

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The potential benefits of e-business are well documented by academic researchers and practitioners alike (InternetWeek 2000/2001; Phan, 2003). Organizations that integrate e-business applications, such as shared online database and internet-based reporting in their business processes, can lead to reduced cost, increased efficiency and profitability, and better customer relationship management. Perhaps, one of the most significant contributions of e-business applications is its abilities to directly bring sellers and buyers together with little middleman's interventions.

Although the advantages of e-business exist in theory, little empirical work has been done to confirm them. Some study actually showed an inconclusive link between e-business and sustainable development (Digital Europe, 2003, p.1):

Our survey showed no conclusive evidence for companies that use a lot of e-business actually performing better than other companies on sustainable development, simply by virtue of their e-business use. There may be a relationship here - which could become more obvious as e-business applications are more fully integrated into companies' operations - but more research would be needed to prove a link.

Answering this call, researchers have attempted to build theoretical frameworks to pinpoint how e-business creates value. Using the technology-organization-environment (TOE) framework Zhu, Kraemer, Xu, and Dedrick (2004) found that technology readiness, firm size, global scope, financial resources, competition intensity, and regulatory environment may affect e-business value creation. Amit and Zott (2001) integrated several theoretical perspectives on entrepreneurship and strategic management to identify four interdependent dimensions: efficiency, complementarities, lock-in, and novelty as sources of value creation.

Despite the recent advancement of research in this area, the fundamental question regarding e-business remains unanswered, i.e., whether e-business creates value. This paper attempts to fill this vacuum by establishing a theoretical foundation to evaluating the linkage between e-business investments and firm performance in terms of profitability and cost savings. Confirmation or disconfirmation of the effectiveness of firms' investments in e-business will contribute to the knowledge accumulation in this area. It can also provide an insight for future investments.

We begin the paper by presenting our research framework grounded in the resource-based view (Barney, 1986; Barney, 1991; Conner, 1991; Rumelt, 1984). Resource-based view argues that firm-specific skills and resources that are rare and difficult to imitate or substitute are the main drivers of firm performance. We show how e-business initiatives create unique skills and resources for firms. Then we formulate our hypotheses, discuss the data set and methodology, and present estimation results. Finally, we provide discussion of the results and suggestions for future research.

RESEARCH FRAMEWORK: THE RESOURCE-BASED VIEW

Broadly speaking, e-business value is a subset of the business value of IT. The business value of IT investments in general has been long debated, which led to the birth of the famous term "productivity paradox." Some studies provide positive support for the business value of computer investments (Brynjolfsson 1993; Brynjolfsson and Hitt 1996; Hitt and Brynjolfsson 1996; Bharadwaj 2000; Stratopoulos and Dehning 2000). On the other hand, Strassmann (1997) argues that IT investments have no discernible effects on firm profitability measured in return on assets (ROA), return on equity (ROE), and economic value added (EVA).

In an attempt to explain the inconclusiveness, some researchers propose several theoretical models that examine the entire process needed for IT investments to make an impact on business