

## Chapter XXV

# Evaluating E-Business Leadership and its Links to 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, the leaders are compared with their comparable counterparts in terms of profitability and cost in both the short-run and long-run. It is found 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, managerial implications are offered accordingly.

### INTRODUCTION

The rapid expansion of e-business 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 U.S. 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.”

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):

*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, that is, whether e-business creates value. This article 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.

The article begins by presenting the 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. How e-business initiatives create unique skills and resources for firms is shown. The hypotheses are then formulated, the data set and methodology discussed, and estimation results presented. Finally, discussion of the results and suggestions for future research are provided.

## **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 & Hitt, 1996; Hitt & Brynjolfsson, 1996; Bharadwaj, 2000; Stratopoulos & Dehning, 2000). On the other hand, Strassmann (1997) argues that IT investments have no discernible effects

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