An E-Commerce Process Model: Perspectives from E-Commerce Entrepreneurs

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ABSTRACT

The failure of dot-coms is a staggering 75% in the first two years. Many of these failures were small and medium-sized enterprises (SMEs). One of the most commonly cited reasons for failure has been lack of a workable strategic business model to guide e-commerce (electronic commerce) efforts. We began this study because we wanted to explore if successful e-commerce SMEs use a guiding strategic process model, and if they do, ask them to articulate the model components. We chose a qualitative research method to obtain a rich description of the e-commerce process. The interview pool consisted of 15 interviews with established SME e-commerce entrepreneurs. From deep analysis of the data, a set of e-commerce process components and interrelationships between those components emerged from the data. We then synthesized (from the rich description) a model of the e-commerce process.

Keywords: e-commerce; process model; process strategy

INTRODUCTION

The phenomenal growth of the Internet since the mid-1990s has fostered an explosion of electronic business on the Web known as e-commerce (Nataraj and Lee, 2002; Motiwalla and Khan, 2003). The Internet has grown from a few thousand people in 1993 to more than 150 million in 1999, and is expected to grow to more than a billion by 2004 (Bingi et al., 2000). Forecasts have estimated that the total value of worldwide e-commerce will exceed $400 billion by the year 2002 (IDC, 2000). However, hundreds of Internet companies have gone out of business in the past few years, causing tens of thousands of lost jobs and billions of
squandered dollars in investment capital (Nataraj and Lee, 2002; Perotti et al., 2003). The failure of dot-coms is a staggering 75% in the first two years (Nataraj and Lee, 2002). Many of these failures were small and medium-sized enterprises (SMEs) (Bertsch et al., 2002; Daniel et al., 2002; Marquess, 2001). One of the most commonly cited reasons for failure has been lack of a workable strategic business model to guide e-commerce efforts (Glass, 2001; Marquess, 2001; Nataraj and Lee, 2002).

We began this study because we wanted to explore if successful e-commerce SMEs use a guiding strategic process model, and if they do, ask them to articulate the model components and their interrelationships. We chose a qualitative research method to obtain a rich description of the e-commerce process. Rich (or thick) description refers to thorough descriptions or details of a phenomenon that create verisimilitude and produce in the reader feelings that he or she has experienced the events described (Creswell, 1998; Denzin, 1989; Erlandson et al., 1993; Lincoln and Guba, 1985; Merriam, 1988). The interview pool consisted of 15 formal interviews with established SME e-commerce entrepreneurs. From deep analysis of the data, a set of e-commerce process components and interrelationships between those components emerged from the data. We then synthesized (from the rich description) a model of the e-commerce process.

The paper is organized into six sections—related literature, research methodology, research process, data analysis, findings, and conclusions.

### RELATED LITERATURE

#### The Productivity Paradox

Brynjolfsson (1993) explored the relationship between IT and productivity. Brynjolfsson was interested in finding why a productivity paradox exists related to IT investments. That is, why does investment in IT not necessarily lead to increases in productivity? Managers are increasingly questioning their huge IT investments when productivity gains are not apparent.

Brynjolfsson argues that the causes of the productivity paradox must be understood before we can learn how to remove the obstacles to higher productivity growth. One of the author’s most compelling arguments is that IT investments may not be quantifiable because of the intangibles, such as better responsiveness to customers and increased coordination with suppliers. Brynjolfsson and Hitt (1998) argue that the focus should be on how to make IT more effective rather than the purely economic productivity paradox. They posit that computerization does not automatically increase productivity, but is an essential component of organizational changes that do increase productivity.

Hitt and Brynjolfsson (1996) separate the issue of IT value into three dimensions: 1) the effect of IT on productivity, 2) the effect of IT on business profitability, and 3) the effect of IT on consumer surplus. The authors believe that this multidimensional approach is more realistic because, depending on one’s vantage point, one, two, or all three dimensions may be important or one dimension may be more important than another. Although
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