Supporting E–Commerce Strategy through Web Initiatives

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INTRODUCTION

Our understanding of "the Web" and its e-commerce (EC) potential has grown rapidly during the past decade. While e-commerce has matured and is now mainstream, there continue to be opportunities to innovate as technology improves, the public is increasingly comfortable with and dependent up the e-approach, and new or enhanced applications appear. While historical roots of the Web go back several decades, it was only in the last two that business really started to embrace the Internet, and in the last one that commercial opportunities on the Web grew rapidly. Business use has gone from simple operational efficiencies (e-mail on the Internet, replacement of private EDI networks, etc.) to effectiveness (enhanced services, virtual products, and competitive advantage). Information and information products, available in digital form, and the ability to quickly transfer these from one party to another, have led to a paradigm shift in the way organizations operate. Many BPR (business process re-engineering) projects made use of the Web to streamline business processes and reduce or eliminate delays. Web self-service has emerged as a popular approach, with benefits for both customers and providers. Even governments have embraced the Web (e-government) for information and service delivery and interaction with citizens and businesses.

While the transition has followed the historical IT progression of automate, infomate, and transformate, the pace has been unprecedented. There have been successes and failures, with fortunes made and lost. After the dot-com boom/bust cycle, things settled down somewhat; yet the rapid pace of Web initiatives continues. At the forefront are innovators seeking competitive advantage. At the rear are laggards who can no longer ignore efficiencies provided by the Web and market requirements to be Web-enabled.

Paralleling the improvement in IT and the Internet has been a series of economic shifts including globalization, flattening of hierarchical organizations, outsourcing and off-shoring, increasing emphasis on knowledge work (contrasted with manual labor), plus growth in the service sector and information economy. IT has both hastened these economic shifts and provided a welcome means of addressing the accompanying pressures (often through EC or other Web initiatives).

To consider EC strategy and Web initiatives, one first needs to understand strategy and then extend this to the

Figure 1. Strategic alignment
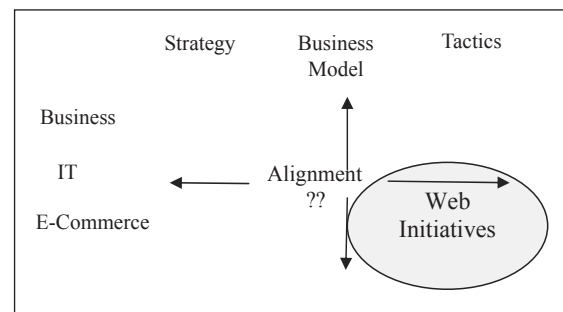
organization's business model and tactics. A firm's general business strategy includes, but is not limited to, its IT strategy (Figure 1). Similarly, EC strategy is a subset of IT strategy. Strategy should drive actions (tactics), through an appropriate business model. When strategy (business, IT, and EC) and tactics are closely aligned, and tactics are successfully executed, desirable results are obtained. Sometimes this normative view becomes reversed or otherwise changed. In the extreme, Web initiatives become the sole major focus (as was the case in the early days of the dot-com boom). However, without alignment between such tactics and the firm's strategy and business model, such an approach is either doomed to eventual failure or substantial modification.

In addition to commercial use of the Web, there are many non-commercial uses and non-commercial users (governments, educational institutions, medical organizations, etc.). The term e-business is often used to include both commercial and non-commercial activity on the Internet. In this article, the focus is on commercial activities (B2B and B2C). While e-government includes use of EC, governments are often driven by goals and responsibilities other than profit generation or cost reduction.

BACKGROUND: BUSINESS STRATEGY, IT STRATEGY, AND WEB INITIATIVES

Business strategy and IT strategy have been extensively studied. The "strategic alignment model" of Henderson and Venkatraman (1993) identifies four domains of strategic

choice: business strategy, IT strategy, organizational infrastructure and processes, and IT infrastructure and processes. This model recognizes that a firm's IT operates within, and supports, a larger environment. As well, a firm's IT strategy can lead, lag, be independent of, or be aligned with a firm's business strategy. When alignment exists, there are significant payoffs (Tallon & Kraemer, 2003).

On the business strategy side, Porter provides several frameworks to guide firms in selecting their strategy and business model. His five-forces model, value chain network, and generic strategies (Porter, 1996) are useful frameworks when considering both business and IT strategies. In response to the question of whether or not the Internet renders established rules of strategy obsolete (as some had proposed), Porter answers that it makes strategy more vital than ever (Porter, 2001). He shows how the Internet has both positive and negative effects on industry structure, and identifies six principles of strategic positioning: (1) start with the right goal—superior long-term return on investment; (2) a firm's strategy enables it to deliver a value proposition, or set of benefits, that differentiates itself from competitors; (3) a firm's strategy is reflected in a distinctive value chain; (4) effective strategies require trade-offs; (5) strategy defines how all the elements of what a company does fit together; and (6) strategy involves continuity of direction. Porter (2001, p. 78) concludes, "In our quest to see how the Internet is different, we have failed to see how the Internet is the same." Today this conclusion seems almost self-evident, as our understanding of EC is much more comprehensive.

An extension to Porter's value chain is the virtual value chain (Rayport & Sviokla, 1995). Just as the physical value chain identifies the value-adding stages through which physical goods flow, the virtual value chain identifies the value-adding steps for information (gathering, organizing, selecting, synthesizing, and distributing). Firms can follow a three-stage development process: (1) visibility—improving ability to track operations more effectively, (2) mirroring—substituting virtual activities for physical, and (3) creating new customer relationships—using information to deliver value in new ways.

For virtual products and services, EC strategy and Web initiatives are especially important. EC usually takes advantage of both these value chains (the physical and the virtual). For example, supply chain management (SCM) initiatives have found that sharing information (virtual) about ultimate end-user demand with all members of the chain (physical) can result in significantly lower total chain costs along with improved delivery performance.

E-COMMERCE STRATEGY

During the rampant optimism of the mid to late 1990s, there seemed to be much more hype than reality concerning e-business. Statements were made that business was different now, that the Internet and Web changed everything, and that new e-business models were needed. The feeding frenzy among venture capitalists, eager to fund almost any start-up, allowed incomplete and ill-conceived concepts to be financed. It did not take long before reality took hold again, as the dot-com boom became the dot-com bust. The pendulum has now shifted from an overemphasis on "E" to a more balanced perspective on both "E" and "C." The Gartner Group Hype Cycle (Figure 2) provides a somewhat light-hearted, yet still realistic, view of this technology lifecycle. EC has gone through this cycle and emerged as an essential, productive process for most businesses.

Understanding an organization's strategic grid position (Figure 3) is critical for developing an appropriate IT and EC strategy and determining the requisite level of resources to commit. EC is not strategic to all firms, nor is all EC strategic. As Carr (2003) argues, much of IT today is a commodity-like service for many organizations, and can be managed as such (hence the popularity of IT outsourcing). Yet, EC and Web initiatives can be strategic. For firms transitioning from one quadrant to another within this grid

Figure 3. EC importance strategic grid
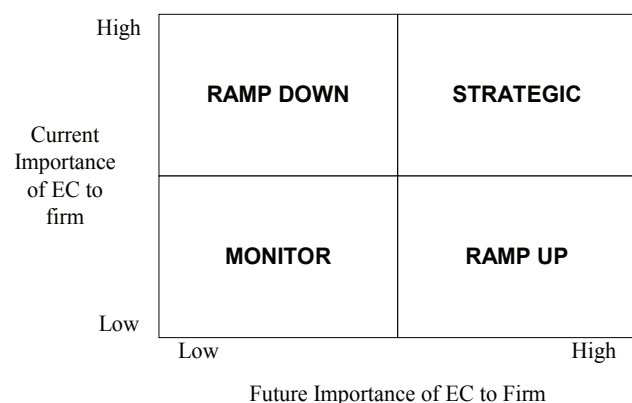
Figure 2. Technology hype cycle (Adapted from Gartner Group)

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