Chapter X

Aligning IT Resources for E-Commerce

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ABSTRACT

The era of e-commerce requires firms to have a more sophisticated IT alignment model. Now IT strategy and business strategy (r)evolve together while firms’ operating environments change more rapidly. In addition, the use of Web-based systems necessitates more frequent interaction both between IT management and IT users and between firms and their trading partners and customers. Consequently, firms must skillfully strike a balance between current and future business capabilities. They also must constantly readjust business and IT objectives considering their organizational needs and environmental needs. From the perspective of organizational learning loops, this chapter introduces a framework of IT resource alignment model to enable dynamic processes of IT alignment.

INTRODUCTION

Traditionally IT alignment was considered from the perspective of strategy and organizational structure. For example, McKenny et al. (1997) provide an historical account on how Bank of America (BoA) strived to become an industry leader by crafting its IT strategy when BoA was faced with operational crises. Their study illustrates how operational necessity leads a company to devise a new strategy followed by the adoption of IT innovations. Similarly, Baets (1996) describes a sequence where a new industry situation leads to a renewed corporate strategy triggering the alignment of IT strategy in the banking industry as a whole.

Those previous studies note that IT alignment used to follow business strategy which had adapted to environmental changes. In other words, previous studies tend to assume that IT strategy and business strategy are given, separate entities. However, such IT alignment perspective needs to be reconsidered in the e-commerce era when business and IT strategies intricately intertwine with each other and must adapt quickly to market changes. First, IT strategy may now shape a firm’s business strategy rather than the other way around, because the IT function can
drive a firm’s value chain management, as information plays a critical role in the e-commerce era (Rayport & Sviokla, 1994, 1995). Notable examples are seen in financial brokerage (e.g., www.etrade.com, fundevaluator.fidelity.com), automobile distribution (e.g., www.carsdirect.com, www.carorders.com) and online customer service functions (e.g., product inquiry, technical support, complaints).

Second, we need to realize alignment must be done more dynamically because of the increased velocity of change in the market, business management and IT. In the 1970s and 1980s, companies had a few years for IT strategy implementation to react with anticipated business requirements. Now, in a period of six months contingencies occur where companies must realign IT strategy.

Third, the past view of alignment processes lacks the perspective of organizational capability that is enhanced through organizational learning, although Venkatraman et al. (1993) noted earlier the importance of IT capability in aligning IT strategy with business strategy. When a brick-and-mortar retailer realizes it should engage in e-commerce, it does not go far on just its initial ambition. To build an effective Web site, for example, the retailer must learn how to provide information, deliver service and manage the site at the corporate, business unit and individual levels. In other words, it needs the capability—a set of skills and resources at the organizational, functional and individual levels—to deploy a Web site successfully and sustain competitive advantage by continuously adjusting itself to rapid environmental changes. A key challenge is how to manage such process of IT capability enhancement while the organization attempts to align IT resources for moving targets.

Applying the double loop model of organizational learning (Argyris, 1977) and self-regulation theory (as referenced by Brett et al., 1999), this chapter introduces a framework that enables managers to focus on dynamically aligning four key foci of IT resources with firm strategy. The next section introduces what these four foci are and why they are important. The following section applies the framework in the context of supply chain management (SCM) and Web-based consumer transaction applications.

**TOWARD A NEW MANAGERIAL FRAMEWORK FOR IT ALIGNMENT**

Business models must change as the environment changes. We have seen successful companies with their successful business models struggle to renew their strategy and organization to adapt for a new environment. In the late 1980s and early 1990s, IBM went through a long corporate renewal process in which it has repositioned itself from a mainframe vendor to a solution provider for the client-server era.

What is different with the era of e-commerce is the accelerated pace of business environment changes and the increased velocity in which strategies must change.

For example, Hewlett-Packard (HP) recently recognized that it had been behind in so-called “Internet strategy” to exploit the e-commerce boom. This resulted in major business model reconfigurations including the replacement of its CEO and its divesture of the Test-and-Measurement Division. The change process undertaken by HP is much shorter than that of the previously mentioned IBM. A
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