Information Systems Strategic Alignment in Small Firms

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INTRODUCTION

The concept of "alignment" or "fit" expresses an idea that the object of design—for example, an organization's structure or its information systems (IS)—must match its context to be effective (Iivari, 1992). More recently, Luftman (2004) has taken this argument one step further and argued that a lack of alignment within an organization will limit the effectiveness of the organization's business strategies.

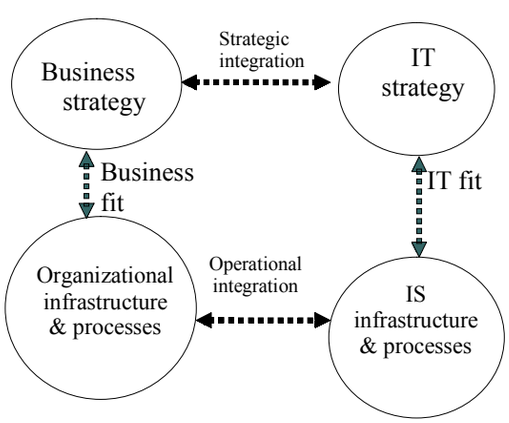
The concept of alignment has become particularly important in the field of IS, as Luftman (2004) and others have argued that firms need to align their IS strategies with the other strategies of the business. For example, if a firm's business strategy is to be a "cost leader" in its industry, then its IS strategies should support and enable "cost leadership;" for example, through effective supply chain management.

Much of the research on IT alignment builds on the work of Henderson and Venkatraman (1989), who identified four types of alignment within organizations. They developed a strategic alignment model that defined the range of strategic choices facing managers and how they interrelate. Their model is summarized in Figure 1, with four domains of strategic choice: business strategy, IT strategy, organizational infrastructure and IT infrastructure. They argue that alignment requires organizations to manage the fit between strategy and structure, as well as the fit between the business and IT. They named the four aspects of alignment as:

- **Strategic integration** – the alignment between business and IT strategies
- **Operational integration** – the alignment between business infrastructure and IT infrastructure
- **Business fit** – the alignment between business strategy and business infrastructure
- **IT fit** – the alignment between IT strategy and IT infrastructure

Typically, different researchers have focused on parts of the Henderson & Venkatraman (1993) model. For example, Chan, Huff, Barclay and Copeland (1997) focused on the link between business strategy and IT strategy, while Raymond et al. (1995) focused on the link between organizational structure and IT structure. Most of the recent research has focused on Henderson & Venkatraman's (1989) "strategic integration"; that is, alignment at the strategy level. This type of alignment is now typically referred to as "strategic alignment." This article focuses on strategic alignment, partly because there has been significant research in recent years that has focused on strategic alignment, but also because recent research indicates that alignment at the strategic level is important for all organizations that use IT.

Figure 1. The Henderson and Venkatraman strategic alignment model (1993)



STRATEGIC ALIGNMENT

Despite the wide recognition of the importance of IT alignment, studies have indicated that firms struggle to achieve alignment (Chan et al., 1997; Luftman 2004). For example, Luftman (2004) places most large firms that he has studied at an IT alignment maturity level of 2, on his scale from 1 to 5, where 1 is least mature/not aligned and 5 indicates mature/fully aligned. As a result, some researchers have examined factors that influence IT alignment in an attempt to understand how firms can best achieve alignment. In particular, Reich and Benbasat (2000) concentrated on the antecedents that influence alignment. In their study, they used the duality of strategy creation: an intellectual and a social dimension. The intellectual dimension refers to methods and techniques, while the social dimension refers to people involved and their role. Reich and Benbasat defined the social dimension of IT alignment as, "the state in which business and IT executives within an organizational unit understand and are committed to the business and IT mission and objectives." Reich and Benbasat (2000) identified five major factors that influenced the social dimension of IT alignment: shared domain knowledge between business and IT executives, IT implementation success, communication between business and IT executives, connections between business and IT planning processes, and strategic business plans.

Luftman (2004) is another who has focused on enablers of alignment in firms, resulting in the following six enablers of IT alignment: communications between IT and the business, IT/business value measurements, IT governance, IT partnerships, IT scope and architecture and IT skills. Luftman (2004) outlines the content of each enabler. For example, "communication" includes six aspects, including communication by IS staff with the rest of the business and communication by the rest of the business with IS. He argues that all six enablers contribute to "alignment maturity," and he encourages firms to evaluate all six enablers, then create project plans to improve the organization's level of alignment.

The studies by Reich and Benbasat (2000) and Luftman (2004) show that alignment is influenced by a broad range of factors and that we have yet to reach a consensus on these factors. Importantly, both IT and non-IT managers and staff can influence alignment. They all make important contributions, so they must work as a partnership.

Although IT alignment has been discussed by many, there have been relatively few attempts to measure IT alignment. Chan et al. (1997) conducted one of the most comprehensive attempts to quantify alignment and its effect on organizational performance. Chan et al. (1997) developed four survey instruments to measure each of the following constructs: business strategy, IS strategy, IS effectiveness and business performance. Venkatraman's (1989b) STROBE instrument was adapted for the business strategy instrument. A similar instrument was developed by Chan to assess IS strategy. As both instruments used the same eight dimensions of strategy, the two instruments were used to compute strategic fit. Chan found that alignment was a better predictor of performance than the individual measures of strategy, and thereby demonstrated a positive relationship between strategic alignment and business performance.

There is also some debate about how data should be analyzed when attempting to measure alignment. Matching and moderation are two of the many ways of measuring alignment (Hofacker, 1992). The matching perspective is commonly based on the difference between two measures. For example, if "cost reduction" was rated by a firm as having an importance of 10, and the IT support for "cost reduction" had a rating of 2, then the matching approach would use the absolute difference of 8 (i.e., 10 – 2), as an indication of the alignment of IT with the "cost reduction" strategy. Using the matching approach, alignment is thus the level of similarity between the measures.

Another common perspective is "moderation," which assumes that alignment reflects synergy; for example, between IS and business strategy. Alignment is thus calculated as the interaction between the two measures. For example, if "cost reduction" was rated by a firm as having an importance of 10, and the IT support for "cost reduction" had a rating of 2, then the moderation approach would give this a score of 20 (i.e., 10 * 2), as an indication of the alignment of IT with the "cost reduction" strategy. The moderation perspective gives greater weight to, for example, a firm's most important business strategies.

Chan et al.'s (1997) results supported the moderation approach. Bergeron et al. (2001) explored six perspectives of alignment and found support for