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IT-BUSINESS ALIGNMENT: WHAT WE KNOW THAT WE STILL DON'T KNOW

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Abstract

A review of IT trade publications and MIS research literature on IT-business alignment confirms the fact that, as a top concern for CEO's and CIO's, problems associated with a lack of an optimal level of alignment between business and IT functions within organizations remain as a continuing challenge for IT and organizational management. In attempts to explicate the IT-business alignment construct, researchers have formulated definitions of the construct, and they have proposed frameworks and models. Research studies on alignment have identified potential organizational impacts of alignment and have proposed prescriptive measures for achieving a higher degree of IT-business alignment in organizations. Given this body of research, an identification of key issues yet to be fully addressed by the existing research would guide additional research on IT-business alignment. Based on the results of a literature review, this paper provides a characterization of the research findings to date and proposes topics for additional research intended to extend the knowledge on IT-business alignment.

Keywords: Strategic alignment, business-IT alignment, IT management

Introduction

For almost two decades, the need for alignment of an organization's information technology (IT) strategy with its business strategy has captured the attention of both researchers and practitioners. Problems stemming from a lack of alignment have received considerable notice in IT-related trade journals and have been studied in detail by MIS researchers, who have proposed solutions for achieving better alignment.

IT practitioners continue to struggle with addressing alignment problems in their organizations. The results of a recent survey of over 300 CIO's and CEO's revealed that IT-business alignment (hereafter referred to as "alignment") is currently their number one priority (Beal, 2003). In fact, alignment has consistently been rated as a key management issue by information systems (IS) executives (Brancheau, Janz, & Wetherbe, 1996). Brancheau et al. also noted that that alignment was a perennial top ten IS management issue in a series of surveys (1980, 1983, 1986, and 1990). Continuing articles in practitioner journals suggest that there are no easy solutions to a lack of alignment. Even the Gartner group, a leading provider of global technology consulting for business and industry, is among those organizations experiencing alignment problems (Ferranti, 2001).

To understand the ramifications of the alignment issue, several topics must be considered. First, what does alignment really mean in organizations? Are models and frameworks available to support an in-depth consideration of alignment? Next, what symptoms of the problems associated with alignment are identified in the research? What prescriptive remedies can be derived from that research? And finally, what issues remain to be addressed?

The purpose of this paper is twofold: to characterize research findings to date about alignment and to identify issues that have yet to be fully addressed. These issues include both those noted in the research and those that have not yet been formally identified but can be deduced from previous considerations of the problem. Given the work to date, an identification of issues yet to be sufficiently addressed by research would be instructive for continued research.

The Core Construct

In general, IT-business alignment as a construct concerns the degree of congruence of an organization's IT strategy and IT infrastructure with the organization's strategic business objectives and infrastructure. Several definitions supporting this characterization of alignment are available in the literature (Broadbent & Weill, 1993; Chan & Huff, 1993; Luftman, Lewis, & Oldach, 1993; Maes, Rijsenbrij, Truijens, & Goedvolk, 2000; Reich & Benbasat, 2000; Tallon & Kramer, 1998).

A Model of Alignment

Perhaps the most widely used model of alignment is the Strategic Alignment Model (Henderson & Venkatraman, 1999). This multidimensional model (Figure 1) specifies internal and external dimensions along with strategic fit and functional integration dimensions. Further, what the authors term as four dominant "alignment perspectives" are delineated. Two of the perspectives, termed "strategy execution" and "technology transformation," have business strategy as the driver, and two, termed "competitive potential" and "service level," have IT strategy as the enabler.

Figure 1. Strategic Alignment Model (Henderson and Venkatraman, 1999)
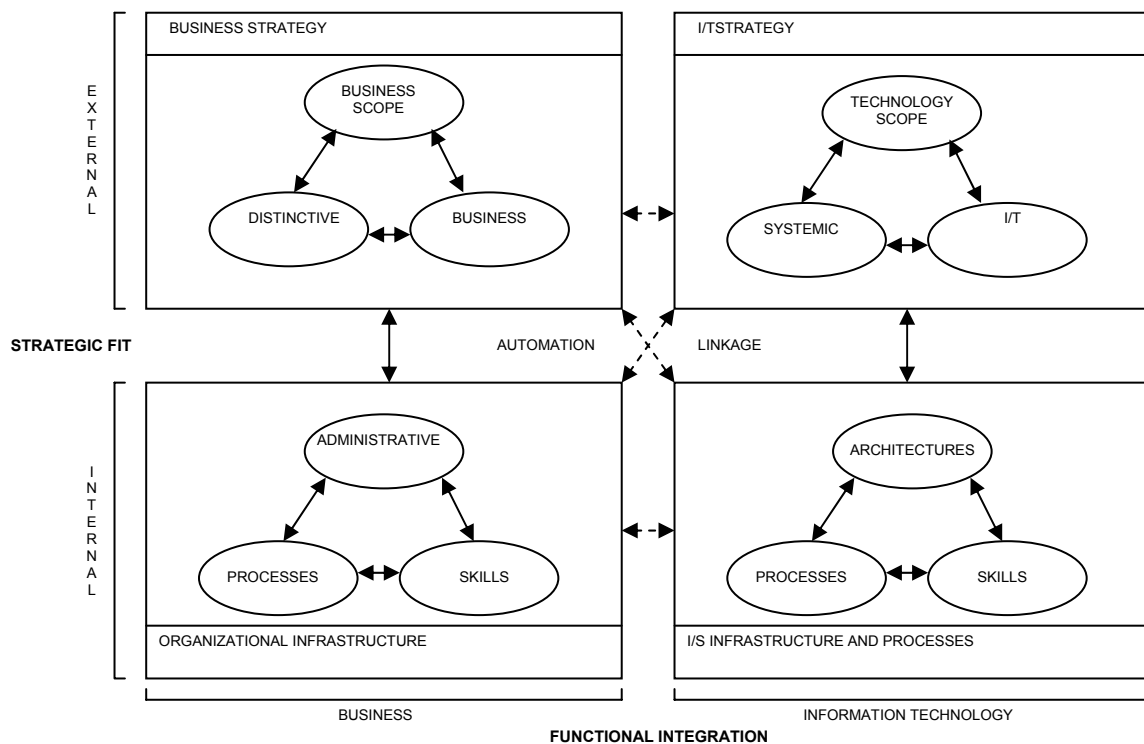
Organizational Impacts Identified in the Research

Numerous research studies related to alignment were found in performing a literature review on this topic. Three recurring themes among those studies seem to characterize the major organizational impacts of alignment. Specifically, those themes relate to an identification of symptoms of a lack of alignment in organizations, a proposal of benefits yielded by a high degree of alignment, and an indication of organizational processes that are related to the degree of alignment achievement.

A number of symptoms of alignment problems in organizations are identified in the research. From an IT perspective, misalignment with the business strategy of the organization typically results in a reactive stance for IT, where IT is seen as a cost center and not as a strategic business partner. From a business perspective, misalignment of IT with business strategies results in a decreased pay off from investments in IT and in decreased competitive capabilities for the business organization as a whole (Tallon, Kraemer, & Gurbaxani, 2000).

The potential benefits of achieving better alignment have also been proposed. Alignment has been found not only to be a significant and positive predictor of the potential capabilities of an organization's IT infrastructure, but also to be an organization-wide issue that directly impacts overall performance (Xia & King, 2002). Further, Chan (2002) specifically concluded that the alignment of IS and business strategies had a higher IS performance payoff than that of aligning business and IS formal structures. Alignment between business and IT strategies has been found to positively influence the effectiveness of company information systems (Chan & Huff, 1993). In relation to the perceived value of IT within the organization, Tallon, Kraemer, and Gurbaxani (2000) concluded that firms with close IT-business strategy alignment had higher perceived payoffs from IT. Alignment of organizational and technological infrastructures has also been found to enhance business performance (Croteau, Solomon, Raymond, & Bergeron, 2001).

Organizational processes related to the degree of the achievement of alignment have been identified in multiple studies. A model of antecedents to alignment was identified by Brown and Magill (1994). Shared domain knowledge and strategic business plans were found to influence both short and long term alignment (Reich & Benbasat, 1996). The importance of IS planning in achieving alignment was noted by Kearns and Lederer (1997). In examining potential inhibitors to and enablers for achieving alignment, Luftman, Papp, and Brier (1999) found executive support for IT, joint IT-business strategy development, and understanding of the business by IT to be the top enablers of alignment, and identified the top inhibitors of alignment as a lack of close relationships between IT and business functions, poor prioritization by the IT function, and a failure of IT to meet commitments.

Prescriptive Measures for Achieving Alignment

Three recurring prescriptive measures for promoting the achievement of better alignment are found in the research. Those prescriptive measures involve imperatives for strategically positioning IT within the organization, for linking and integrating IT and business strategic planning processes, and for ensuring the congruence of strategic IT initiatives with the corporate vision.

Strategic Positioning of IT

In order to improve the degree of alignment within an organization, the IT function must be strategically positioned within the organizational structure, with the CIO having direct access to the CEO. Strategically positioning IT within the organization ensures that support for the business strategy drives the acquisition and uses of new IT technologies and services, and not the converse.

In identifying imperatives for the successful implementation of IT in business organizations, Rockart, Earl, and Ross (1996) indicated that bi-directional strategic alignment between IT and business functions can be achieved through direct CIO involvement in business strategic management along with the inclusion of senior IT managers in high-level task force initiatives. Rockart et al. also asserted that senior business managers must become knowledgeable about the current state of IT practice in order to understand IT-enabled business opportunities.

Reich and Benbasat (2000) found that enhanced strategic alignment resulted from the shared domain knowledge produced by higher levels of communication between IT and business executives. According to their study, strategically positioning IT within the organization involved moving IT professionals into business units, making business-related professional activities mandatory for IT professionals, sending IT professionals to external business events, and hiring candidates with broad educational backgrounds into junior-level IT analyst positions. On the business side, they advocated bringing non-IT professionals into IT roles and requiring business managers to participate in events introducing new IT and to perform rotations in IT project environments.

A direct benefit of strategic alignment is a perception of higher business value of IT (Tallon et al., 2000). It has also been noted that alignment produced by strategically positioned IT improves the stature of IT within an organization (Segars & Glover, 1998).

Henderson and Venkatraman (1999) highlighted the importance of strategically positioning of IT within organizations. They argued that successful applications of this model result in organizational capability to leverage IT resources on a continuous basis to support competitive advantage in the marketplace. They also indicated the need for a change in IT orientations from an exclusively internal focus to one that fits strategically with the external IT domain environment.

Linkage/Integration of IT-Business Strategic Planning

IT and business strategic planning must be highly integrated and supported by open, consistent, and productive lines of communication between high-level IT and business managers. This high level of integration is essential to the success of strategic IS planning initiatives.

Luftman and Brier (1999) suggested a structured, sequential process for linking IT and business strategic planning initiatives. The resulting alignment would then be sustained through an iterative application of the process. Teo and King (1997) also proposed an evolutionary process to promote stronger integration between IT and business strategic planning. They noted that few firms in their study had attained full integration, the most highly evolved linkage. They also suggested that a key contingency variable enabling higher integration was greater business acumen of the IT executives.

In a subsequent study on the linkage construct, King and Teo (2000) hypothesized that IT-business strategy alignment was weak because of a minimal relationship between business and IS planning processes. They found that closer integration between IT and business strategic planning processes resulted in a perception of higher contributions to organizational performance by IT.

Congruence of Strategic IT Initiatives with the Corporate Vision

To ensure their success in strategic use, IT initiatives must exhibit congruence with the corporate vision. To accomplish this, IT executives must understand the overall business strategic function, and they must be well versed in the business processes requiring IT infrastructure support.

Reich and Benbasat (2000) identified the need for corporate vision in strategic IT initiatives. They found that shared domain knowledge between business and IT executives influenced long-term alignment and that strategic business plans influenced both short-term and long-term alignment: According to these authors, it is imperative that IT steering committees not isolate IT initiatives from the corporate vision.

According to a study by Roepke, Agarwal, and Ferratt (2000), successful alignment initiatives should result in an IT function that is a strategic business partner within an organization. In this context, initiatives by the IT function of the organization would proactively deploy IT projects to serve business needs rather than wait be driven only by business-supplied requirements.

Potential Directions for Continued Research

Despite the achievements of almost two decades of research on issues related to alignment, it appears that much work remains to be done. In a consideration of the state of research efforts on alignment, questions remain that have yet to be fully addressed or understood. Research on these questions holds the potential to extend the knowledge on alignment.

An initial question about alignment relates to the success of efforts to effectively measure its achievement in organizations. As a start, research could be conducted to correlate the outcomes of multiple alignment measures used on an intraorganizational basis across multiple organizations. A significant positive correlation among the outcomes of the multiple instruments across multiple organizations would indicate that at least we are measuring the same construct, hopefully alignment.

A second question that arises concerns how alignment, once realized, can be sustained over the long term. To explore this question, it is suggested that longitudinal research methods could be employed to identify common strategic management and planning practices among organizations successful in achieving and maintaining a high degree of alignment.

Yet another question about alignment stems from a consideration of whether different alignment models are necessary for organizations with different types of organizational structures in order for those organizations to achieve success in attaining and sustaining alignment. Efforts to learn more about this topic would be supported by studies of the relationship between the type of organizational structure and the type of IT strategy used in organizations successful in attaining a high degree of alignment.

Another potential avenue of adding to the knowledge on alignment lies in studying the relationship between knowledge management practices and the degree of alignment achievement in organizations. This research would involve applying

measures of knowledge management success and measures of success in achieving alignment and then using correlational analyses to shed light on the relationship between these phenomena.

Finally, the literature review conducted in preparation for this paper yielded evidence of widespread acceptance and continued application of Henderson and Venkatraman's strategic alignment model by researchers in alignment. In an effort to extend the knowledge on alignment, it would seem useful to investigate the potential of other important dimensions of alignment in addition to the structural and strategic dimensions proposed in the strategic alignment model. One intriguing idea is the potential of informal organizational structure as an important additional dimension of alignment (Chan, 2002). In an effort to continue an exploration of this proposed additional dimension, it would seem useful to study the relationship between organizational culture or climate and the degree of alignment achieved in different types of organizations.

Conclusion

IT-business alignment remains a critical issue in IT management. A continuing stream of research has provided an analysis of the context of this problem, exploring and proposing potential solutions to it. Three recurring themes that have been identified in the research as prescriptive measures to improve the degree of IT-business alignment are the elevation of the IT function to a strategic level in the organization, full integration of IT strategic planning with the business strategic plan, and direct support for the corporate vision in strategic IT initiatives. A careful consideration of the research to date and the continuing recognition in practitioner journals of alignment problems in organizations clearly indicate that much work, both in research and in practice, remains to be done.

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