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A SOCIO-INTELLECTUAL FRAMEWORK EMPIRICALLY TESTING THE FACTORS AFFECTING THE ALIGNMENT BETWEEN BUSINESS AND IS STRATEGIES

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Abstract

This study develops a conceptual framework of alignment between business and IS strategies. Bridging two dominant perspectives in alignment literature, it proposes an integrative framework of socio-intellectual alignment that fills the theoretical gap in business-IT alignment research. The socio-intellectual framework of alignment explains how the business-IT alignment can be accomplished socially and materially through strategic decisions and arrangements among people in an organization. This study provides implications for both decision-makers and scholars by suggesting an extended and balanced perspective on alignment mechanisms. The socio-intellectual alignment framework includes top management support, shared domain knowledge, and mutual trust as antecedents of alignment and IT impacts as consequences of alignment. This study explains how the alignment between business and IS strategies affects business performance in an organization by considering IT impact that mediates the social and intellectual dimensions of alignment.

Keywords: Strategic alignment, IS strategic planning, performance impacts of IT

Introduction

During the four decades since its publication, considerable alignment research has been performed in the general business domain, and, more recently, specifically in the IT domain. However, it is difficult to develop and test the concept of alignment as it is comprised of many interacting variables (Galbraith & Nathanson, 1979). Previous alignment literature shows difficulties in developing the construct of alignment (Galbraith & Nathanson, 1979; Reich & Benbasat, 2000) and lacks a comprehensive model of alignment (Reich & Benbasat, 2000; Sabherwal & Chan, 2001).

This study aims to develop and empirically test a conceptual framework of alignment between business and IS strategies in the alignment formation process. This study proposes an integrative framework of socio-intellectual alignment that fills the theoretical gap in business-IT alignment research. The social dimension of the alignment approach is adopted to examine how the business-IT alignment is accomplished practically and effectively from the perspective of people, any organization's single most important resource. The intellectual dimension of the alignment approach is used to investigate the impact of strategic decisions and arrangements on business-IT alignment and performance. The socio-intellectual framework of alignment explains how the business-IT alignment can be accomplished socially and materially through strategic decisions and arrangements among people in an organization.

This study investigates the organizational factors affecting alignment mechanisms and the impacts of the consequences of alignment on business performance, and provides implications for both decision-makers and scholars by suggesting extended and balanced perspectives on alignment mechanisms.

Alignment as Strategy Formation Process

Strategy formation processes are problem-solving processes (Hofer & Schendel, 1978). Many scholars have considered alignment to be a strategy formation process and have studied it in the content/process and social/intellectual dimensions.

The Content and Process Dimension of Alignment

Contents and process concern what is realized and what is intended, respectively, in the strategy formation process (Fahey & Christensen, 1986; Huff & Reger, 1987). The MIS literature in the content dimension supports positive impact of alignment between business and IS strategies on business performance (Chan et al., 1997; Sabherwal & Chan, 2001). Compared to the number of studies on the content dimension of IS strategy, more research has been performed on the process dimension of IS strategy.

To understand alignment mechanisms in organizational context, an integrative alignment framework that covers alignment contents and process in the strategy formation process is needed. In alignment study, the concept of alignment needs to be extended to include the formation and implementation of strategy as well as the contents and process of alignment.

The Social and Intellectual Dimension of Alignment

Horovitz (1984) developed a framework for strategic management with two dimensions: steps (strategy formulation and implementation) and processes (social and intellectual processes). Social process and intellectual process are the planning processes involved in strategy formulation and implementation. The concept of an intellectual process and a social process corresponds to contents and processes in strategic management literature.

More recently Reich and Benbasat (1996) adopted Horvitz's (1984) framework on alignment research to explain the social dimension of alignment. Based on Horovitz's duality perspective on strategy formation, Reich and Benbasat (1996) developed the duality perspective on alignment: the intellectual dimension and the social dimension of alignment. The social dimension of alignment concentrates on the people in an organization, whereas the intellectual dimension of alignment emphasizes the contents of plans and planning methodologies (Reich & Benbasat, 2000).

In this study the concept of the social dimension of alignment extends Reich and Benbasat's definition (2000) and is defined as the state in which business and IT group members within an organization share IT vision and partake in mutual commitment on the business and IT mission, objectives, and plans. The concept of the intellectual dimension of alignment is defined as the state of strategic fit between business and IS strategies and the functional integration of business and IS in infrastructure and process in an organization.

Development of the Measurement Model of Socio-Intellectual Alignment

To develop the measurement model of alignment, the author reviewed alignment studies in MIS and strategic management literature to identify the major constructs that measure the status of the social and intellectual dimensions of alignment. Based on the resulting measurement model of alignment, this study investigates the structure of the construct of socio-intellectual alignment. Using statistical techniques for assessing the dimensionality of the alignment construct and mixed methods (qualitative and quantitative) for measurement development as well as literature reviews, the author plans to investigate the structure of the measurement model of socio-intellectual alignment.

The Constructs of the Social Dimension of Alignment

Shared vision and mutual commitment in management literature are considered to be constructs of the social dimension of alignment. Regardless of the level of decision-making, sharing thoughts is one of the driving forces influencing collaboration at work. Building and communicating a clear, continuous, and consistent shared vision throughout an organization is one of the most important tasks assigned to top-level managers (Bartlett & Ghoshal, 1990). In order for the business group and the IT group in an organization to achieve alignment, a vision of how and what IT will contribute to the success of the business must be shared throughout the organization.

Individual understanding and acceptance of a company's goals and objectives should be accompanied by a shared vision (Bartlett & Ghoshal, 1990). However, simply having clear, enduring, and consistent shared vision and mutual understanding does not guarantee alignment between business and IT groups, unless individual members of both business and IS groups are willing to

understand and accept them. This study considers mutual commitment between line and IS organizations as a relationship commitment referred to as “an enduring desire to maintain a valued relationship” (Moorman et al., 1992).

The Constructs of the Intellectual Dimension of Alignment

Studies of the intellectual dimension of alignment emphasize strategic or organizational fit between strategy and its context (i.e., external environment, organizational structure, administrative systems, and managerial characteristics) (Venkatraman & Prescott, 1990). The strategic alignment model developed by Henderson and Venkatraman (1993) has been a dominant framework explaining how to link strategic external and internal variables for optimal performance of an organization.

Based on the assumption that IT alone cannot generate sustainable competitive advantages, Henderson and Venkatraman’s (1992, 1993) strategic alignment model investigates strategic alignment between domains based on the strategy-structure-performance framework, which was developed by Chandler (1962). Henderson and Venkatraman (1992, 1993) argued that strategic alignment emerges as the result of both strategic fit (between external and internal domain) and functional integration (between business and information technology domains).

Development of the Research Model and Hypotheses

Figure 1 presents the research model that contains the factors affecting the socio-intellectual alignment, its consequences, and the impact on business performance. The author plans to incorporate the changes from the dimensionality of the measurement model of alignment. With the literature review, the author also plans to incorporate field-driven minor changes to the research model that contains the critical factors affecting the alignment process and appropriate relationship among the model’s factors.

Antecedents: Potential Factors Affecting Alignment Mechanism

Extending Fahey and Christensen’s research paradigm (1986) which investigates performance results raised from specific strategy types under different external conditions and incorporating strategy process issues with the paradigm, Blair and Boal (1991) developed the conceptual integrative paradigm for the strategy formulation process. Based on the review of previous alignment studies on factors affecting alignment, top management support, shared domain knowledge, and mutual trust are considered in this study. Top management support, shared domain knowledge, and mutual trust encourage interdisciplinary collaboration between business and IT groups in an organization.

Top Management Support

MIS literature shows that top or senior management support plays important roles in the success of strategic IS planning (Pyburn, 1983) and IS implementation (Meador & Keen, 1984; Sanders & Courtney, 1985). Coordination between line and IS groups can be achieved through building internal departmental partnerships. Since business and IS groups under internal partnership share the same chief executives, the impact of top management’s efforts to align business and IS strategies is critical to the alignment status.

Hypothesis 1-1: Top-management support will positively influence the socio alignment between business and IS strategies.

Hypothesis 2-1: Top-management support will positively influence the intellectual alignment between business and IS strategies.

Shared Domain Knowledge

Shared domain knowledge is synergy between groups (Bostrom, 1989) and mutual understanding and appreciation among IS and line managers (Nelson & Coopriider, 1996). Shared knowledge is an important facilitator of collaboration. An increased level of shared domain knowledge between line and IS groups has a positive causal relationship on IS performance (Nelson & Coopriider, 1996). Reich and Benbasat (2000) considered “communications and connections” as the factors that influence the

social dimension of alignment between business and IT objectives and considered shared domain knowledge as an antecedent of communication and connection.

Hypothesis 1-2: Shared domain knowledge between business and IT groups will positively influence the socio alignment between business and IS strategies.

Hypothesis 2-2: Shared domain knowledge between business and IT groups will positively influence the intellectual alignment between business and IS strategies.

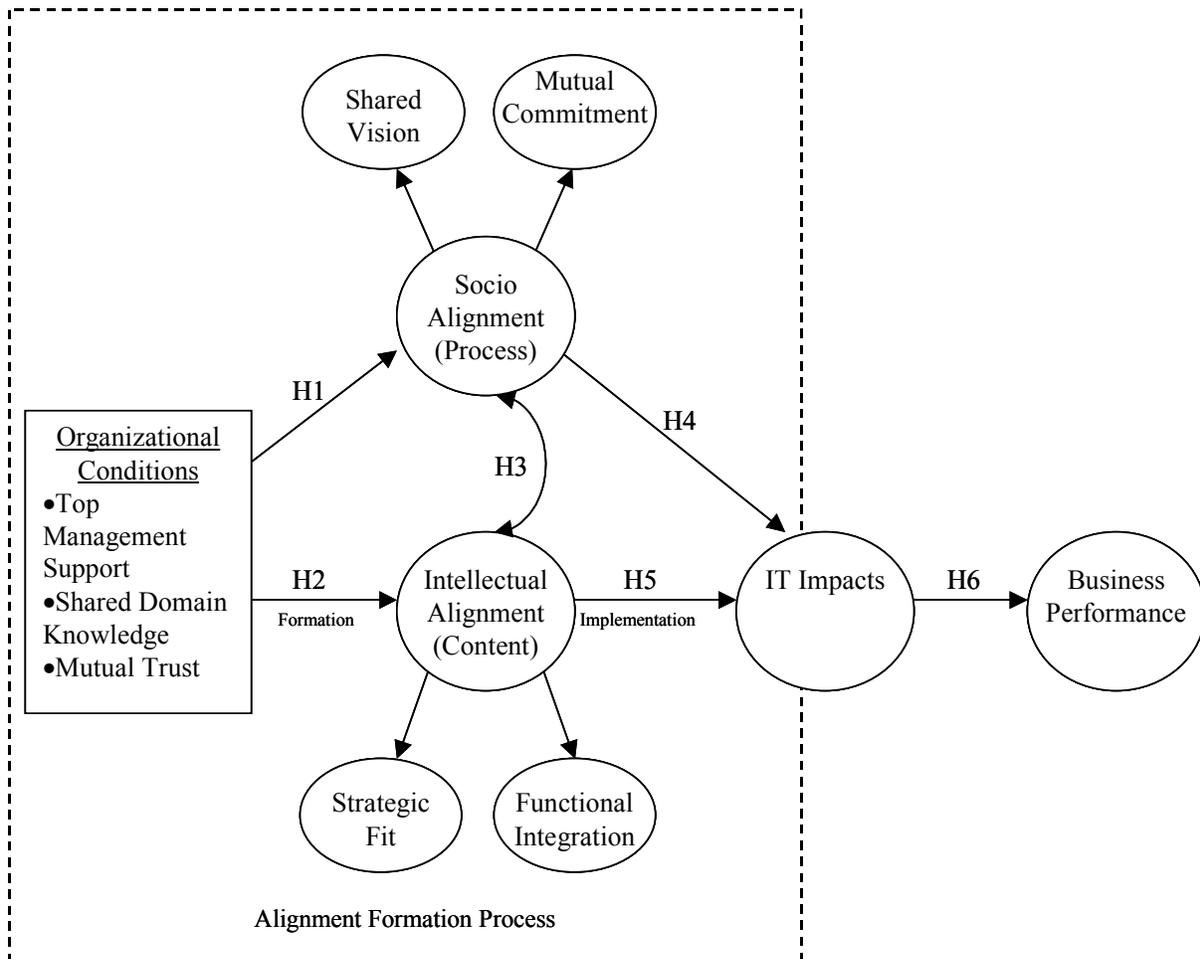


Figure 1. Integrative Socio-Intellectual Alignment Framework (Adapted from Blair & Boal, 1991)

Mutual Trust

Trust can be considered a source of competitive advantage because it can reduce transaction costs in economic exchanges (Barney & Hansen, 1994). Mutual trust is defined as “the expectation shared by the IS and line groups that they will meet their commitments to each other” (Nelson & Coopriider, 1996). Trust is important in the context of alignment because “trust is an important lubricant of a social system” (Arrow, 1974) and “groups work better together in an atmosphere of mutual trust based on mutual commitment and a stable long-term relationship” (Nelson & Coopriider, 1996).

Hypothesis 1-3: Mutual trust between business and IT groups will positively influence the socio alignment between business and IS strategies.

Hypothesis 2-3: Mutual trust between business and IT groups will positively influence the intellectual alignment between business and IS strategies.

Social and Intellectual Alignment

Giddens's theory (1976, 1984) of structuration is a meta-theory that integrates the subjective and objective dimensions of social reality and incorporates both subjective human actors and institutional properties (Orlikowski, 1992). Based on the theory of structuration, Orlikowski's structurational model of technology (1992) considers technology as both a medium and a product of human actions. Socio alignment impacts intellectual alignment in the alignment formation process because alignment is the product of decision-makers and their contexts. For example, shared vision and mutual commitment can increase the level of intellectual alignment. Intellectual alignment impacts socio alignment because intellectual alignment facilitates and constrains socio alignment by affecting the level of shared vision and mutual commitment.

Hypothesis 3: Socio alignment and intellectual alignment between business and IS strategies interact in alignment formation processes.

Posterior: IT Impacts and Business Performance

Management literature considers alignment between strategy and its context as a robust predictor of business performance. Research concerning the alignment between strategy and its context has showed positive implications for performance (Venkatraman & Prescott, 1990). The resource-based view emphasizes an organization's resources and capabilities as internal sources of competitive advantage. A firm differs from its competitors in terms of competitive advantage because it has a different starting point due to its different endowments.

However, increased IT investments, i.e. invested IT resources, capabilities, and assets do not always result in favorable organizational performance. Business-IT alignment is a missing link between IT investment and business performance. Without aligning business and IT, tremendous IT investments simply do not create sustainable competitive advantages or increase business performance in an organization.

Weill (1992) argued that conversion effectiveness, defined as "the quality of the firm-wide management and commitment to IT," is the moderator between IT investment and organizational performance. Higher conversion effectiveness is expected to reveal higher payoff from IT investment. To explain the IT conversion process, which converts IT assets into business value, Sambamurthy and Zmud (1994) developed the concept of IT impacts. This process model explains IT impacts as a factor that explains how, when, and why IT investments cause favorable organizational performance (Soh and Markus, 1995).

Hypothesis 4: The social alignment between business and IT strategies will positively influence the IT impacts.

Hypothesis 5: The intellectual alignment between business and IT strategies will positively influence the IT impacts.

Hypothesis 6: The IT impacts in an organization will positively influence business performance.

Expected Contributions

This study contributes to the developing body of knowledge in IS literature. First, this study extends and balances the concept of alignment. This study analyzes alignment mechanisms from both the social and intellectual perspectives that cover formation and implementation in strategy formation processes. By bridging social and intellectual approaches, this study proposes a conceptual framework for business-IT alignment that accounts for not only improved business performance, but improved human performance as well.

Second, this study investigates the factors affecting the alignment between business and IS strategies and the consequences of the socio-intellectual alignment. By dividing the concept of alignment, this study provides comprehensive explanations of the

major factors and the consequences of alignment in organizational context and possesses the potential to generate meaningful business implications for managers seeking to align business and IT as a means of increasing business value and performance.

Third, this study considers IT impact as business value,-driven by business-IT alignment, mediating social and intellectual alignment, and directly linking to business performance. Discarding the direct link from alignment to business performance, which is a dominant pattern in alignment literature and has weak theoretical and empirical supports, this study provides implications about how decisions regarding IT investment should be considered. By finding the missing link, top management can consider IT investment as a way to create a sustainable business value instead of as the “cost of doing business.”

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