

A Framework for Value Discipline-Driven Strategic Alignment between Business and IT –From the Perspective of BPR

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Abstract. This study presents a new framework, “BITA-BPR model“, for understanding a specific alignment goal and implementing alignment processes efficiently and effectively. The cases of Japanese market leaders’ business-IT alignment are analyzed based on this framework to examine the processes linking firm’s alignment to BPR. BPR targets are different by each company pursuing a different value discipline. These results imply alignment and BPR practices are influenced by firms’ organizational types and strategic context.

Keywords: business-IT alignment, business process re-engineering (BPR), value discipline

1. Introduction

The purpose of this study is to propose a framework for implementing value discipline-driven strategic alignment between business and information technology (IT) from the perspective of BPR. Aligning business with IT remains one of the top concerns of both researchers and practitioners. While the importance of alignment is growing more than ever, the concept has been vague and the methodology for achieving alignment has not yet been fully clarified. This study presents a framework for understanding a specific alignment goal and implementing alignment processes efficiently and effectively. Business-IT alignment is ongoing processes of changes and adaptation. The outcome of alignment is to build the enterprise business processes contributing to firms’ competitive advantage. Alignment practices are indistinguishable from business process re-engineering (BPR). The framework relating alignment to BPR, termed BITA-BPR model, is proposed in this study. The cases of Japanese market leaders’ business-IT alignment are analyzed based on BITA-BPR model to examine the processes linking alignment to BPR.

2. Related Works

A great deal of alignment research has been conducted from various viewpoints. Eight alignment research perspectives such as alignment model and alignment maturity are identified (Kudo and Yasuda, 2009). Henderson and Venkatraman (1993) proposed Strategic Alignment Model (SAM) which has been a seminal model in alignment research. They defined alignment as balancing among four domains of SAM. Based on the past alignment research, business-IT alignment can be defined as continuous processes of interrelating business and IT domains in a timely way and of achieving the consistency among business strategy, IT strategy, organizational infrastructure, and IT infrastructure. Although SAM has been useful to explain the alignment structure, specific alignment goals are not shown in this model, and therefore it is difficult to implement alignment processes efficiently and effectively. As with alignment research, a variety of BPR studies have been conducted based on the theory presented by Hammer and Champy (1993). Earl, et al. (1995) analyzed the relationship between BPR and strategic planning. Attaran (2004) explored the

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relationship between IT and BPR in terms of capabilities and barriers for effective implementation. While a large volume of alignment and BPR research has been conducted, these studies have been little correlated. The comprehensive framework to link alignment processes to BPR implementation is necessary for effective IT management.

3. Pre-Survey Results

The authors analyzed how firms' organization types affect the effectiveness of BPR (Iizuka, et al., 2010). Figure 1 shows the results of the analysis focusing on the relationship between setting numerical targets of BPR and the BPR effectiveness. It was also examined the relationship between the results and organization patterns. The organization patterns include (1) IT and business planning (BP) sections are independent, (2) IT and BP sections belong to the same higher level of an organization, and (3) IT section is placed under BP section.

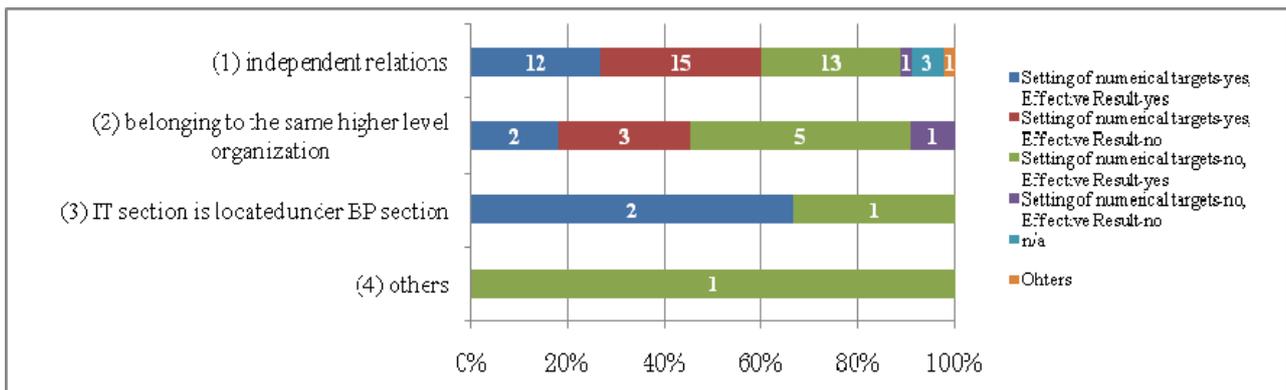


Figure 1 BPR Effectiveness by Organization Type

This pre-survey results show the relationship between IT and BP sections affect BPR, and even if IT and BP sections are not close in the organizational structure, the BPR effect can be improved by setting numerical targets. While the pre-survey results show that one of the important success factors for BPR is to set numerical targets, it is still not clear how firms can set the numerical targets and what targets can be effective for their firms. This study proposes a framework to help derive effective numerical targets for firms by linking business-IT alignment processes to BPR practices.

4. BITA-BPR Model

4.1. BITA model

Figure 2 shows the value discipline-driven strategic alignment model, termed Business-IT Alignment (BITA) model (Kudo and Yasuda, 2010).

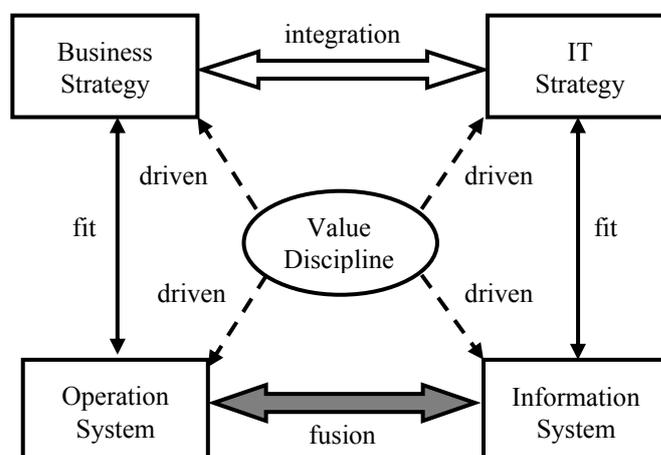


Figure 2 Business-IT Alignment (BITA) model

BITA model is developed by introducing the value discipline framework devised by Treacy and Wiersema (1995) to the business-IT alignment concept. The assumption of this model is that alignment between business and IT is driven by value discipline. BITA model consists of five fundamental domains: value discipline, business strategy, IT strategy, operation system, and information system. Value discipline is a firm's action principle defined in terms of customer value. Treacy and Wiersema identified three distinct value disciplines: operational excellence, product leader, and customer intimacy. "Value discipline-driven" means that the characteristics of alignment among the other four domains of BITA model are determined by the type of value discipline. BITA model enables clear understanding of alignment goals and therefore effective alignment planning and implementation are encouraged. Treacy and Wiersema (1995) argued that each discipline requires a firm to emphasize different business processes. It implies the numerical targets of BPR are differently set by each firm pursuing a different value discipline type.

4.2. CEM

Collaborative Enterprise Model (CEM) is designed for ensuring consistent alignment between "model (including platform)" and "instance (business and IT operation of real world)."

"Meta Model" means a kind of reference model. "Model" represents an enterprise specific model. "Model" is evaluated by the "Meta Model." "Instance" means an enterprise in the real world. It is evaluated by the "Model" (Iizuka and Matsumoto, 1999). CEM has two dimensions: Instantiation and Resolution. Instantiation is modeling and implementation processes from "meta model" to "instance". Resolution is processes translating a firm's strategy into information system. CEM is the model for associating a conceptual business model with a real business operation.

4.3. BITA-BPR Model

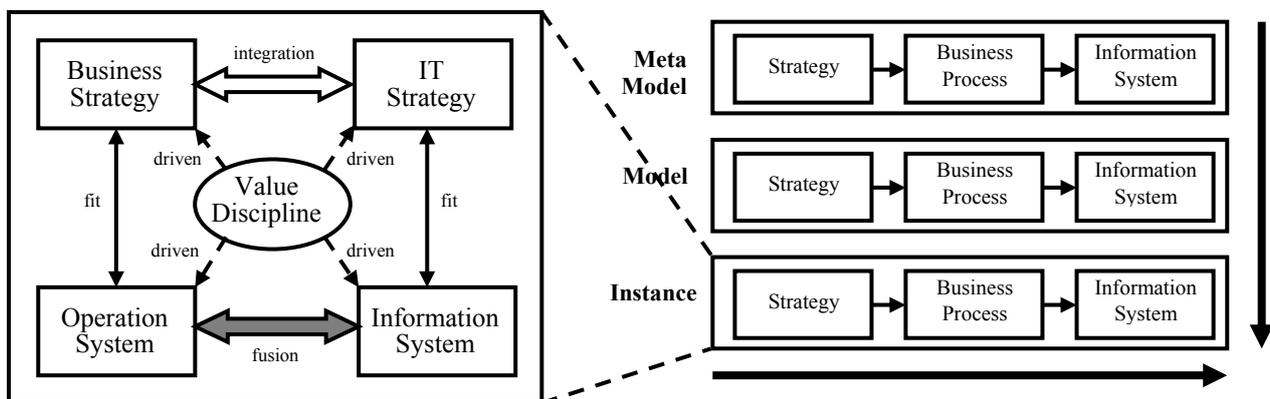


Figure 3 BITA-BPR model

This study presents BITA-BPR model as a framework for implementing effective BPR based on the business-IT alignment concept (Figure 3). BITA model provides the Instance of CEM with more specific direction. An effective numerical BPR target for a firm can be derived from BITA model. BITA-BPR model contributes to increasing IT effectiveness in a firm by drawing practical BPR efforts from the alignment concepts.

4.4. Business-IT Alignment in Japanese Market Leaders

The cases of value discipline-driven strategic alignment in Japanese market leaders are examined based on BITA model. Based on the case studies, the effective evaluation items for numerical BPR targets are also identified. Aeon, operating comprehensive retail business, Toyota Motor, Japan's biggest car manufacturer, and JTB Corp., operating travel business are selected as market leaders in Japan. The descriptions of the cases in this section are based on information obtained from their official homepages, annual reports, and the relevant literature.

4.4.1. Aeon

Figure 4 shows a value discipline-driven strategic alignment profile at Aeon.

Aeon is an operationally excellent company pursuing the proposition of private-brand (PB) merchandise which has the quality equivalent to national-brand (NB) products at competitive prices. At Aeon, the priorities of business and IT strategies are given to cost and efficient strategy types, and infrastructure and operational processing types in operation and information systems are emphasized. Effective BPR evaluation items for Aeon involve speed of logistics, distribution cost, volume of inventories, and missing goods ratio.

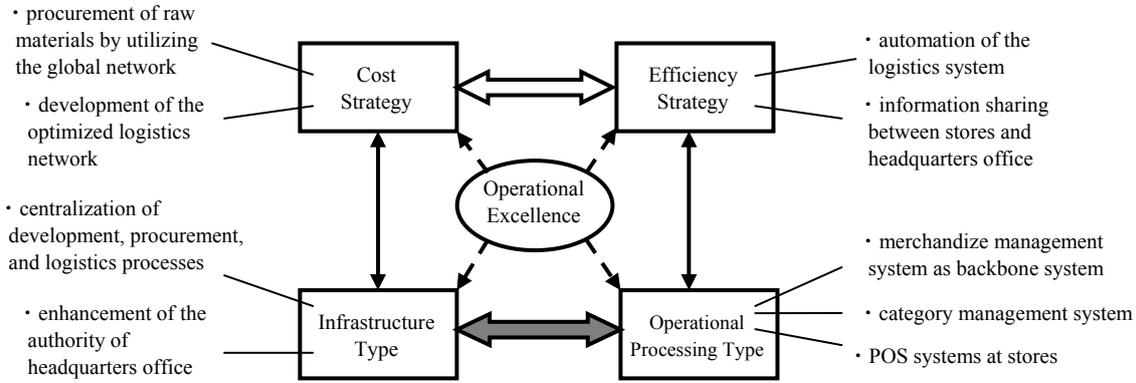


Figure 4 Strategic Alignment Profile at Aeon

4.4.2. Toyota Motor

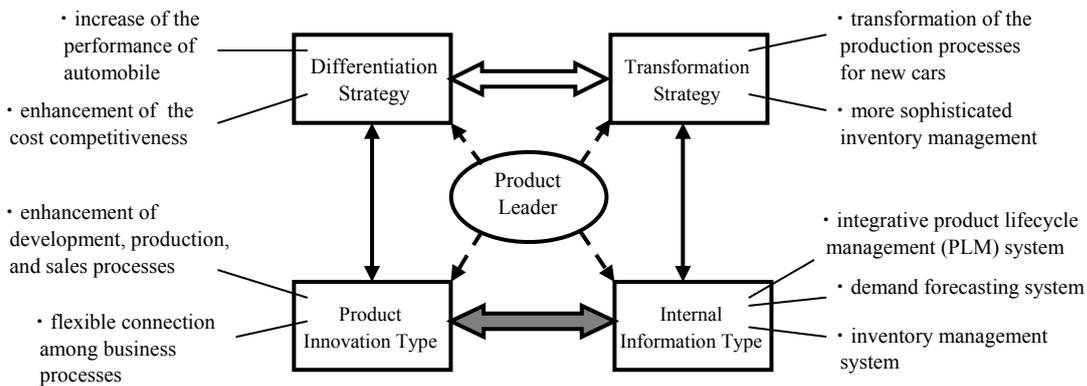


Figure 5 Strategic Alignment Profile at Toyota Motor

Figure 5 shows a business-IT alignment profile driven by the product leader value discipline at Toyota Motor.

Toyota Motor is a product leadership company proposing an innovative automobile at industry average prices. Toyota Motor emphasizes differentiation and transformation strategy types in business and IT strategies, and develops product innovation and internal information types in operation and information systems. Effective BPR evaluation items for Toyota Motor involve the time and cost required for automobile development and volume of inventories.

4.4.3. JTB

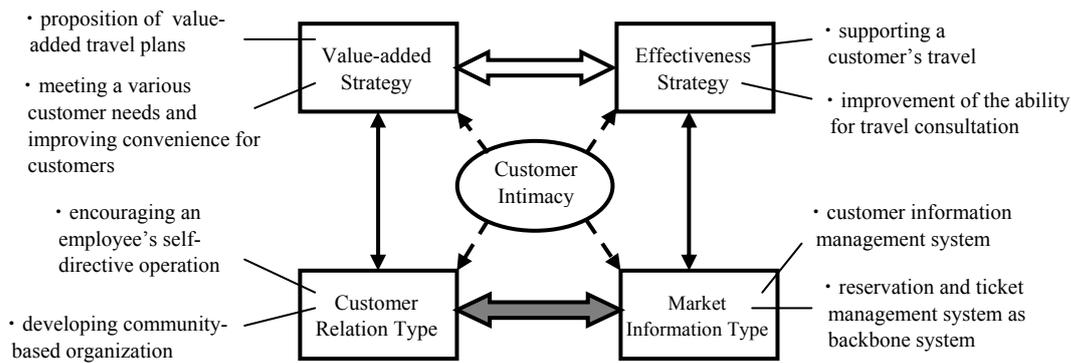


Figure 6 Strategic Alignment Profile at JTB Corp.

Figure 6 shows a value discipline-driven strategic alignment profile at JTB Corp.

JTB is a customer-intimate company aiming to become a customer's best partner. At JTB, the priorities of business and IT strategies are given to value-added and effectiveness strategy types, and customer relation and market information types in operation and information systems are emphasized. Effective BPR evaluation items for JTB involve time required for sales procedures and for dealing with customers.

The BPR action courses and effective evaluation items derived from the analysis of the three market leaders are shown in Table 1. A firm is able to set an effective BPR numerical target based on the evaluation item drawn from BITA model.

	Aeon	Toyota Motor	JTB
Value Discipline	Operational Excellence	Product Leader	Customer Intimacy
Strategy	<ul style="list-style-type: none"> reducing distribution cost 	<ul style="list-style-type: none"> shortening time of car development enhancing cost competitiveness 	<ul style="list-style-type: none"> improving the ability of dealing with customers
Business Process	<ul style="list-style-type: none"> development of optimized logistics network enhancement of logistics and procurement processes 	<ul style="list-style-type: none"> enhancement of development, production, and sales processes enhancement of the relationship with suppliers and dealers 	<ul style="list-style-type: none"> enhancement of production and customer service processes
Information System	<ul style="list-style-type: none"> merchandise management system POS systems at stores 	<ul style="list-style-type: none"> integrative PLM system inventory management system 	<ul style="list-style-type: none"> customer information system reservation and ticket system
BPR evaluation item	<ul style="list-style-type: none"> speed of logistics distribution cost volume of inventories 	<ul style="list-style-type: none"> time and cost required for car development volume of inventories 	<ul style="list-style-type: none"> time required for sales procedures and for dealing with customers

Table 1 Value Discipline and BPR Targets

5. Conclusions and Future Works

This study presented a new framework, termed BITA-BPR model, for implementing value discipline-driven strategic alignment between business and IT from the perspective of BPR. Alignment concepts need to be translated into actual alignment implementation. The purpose of business-IT alignment is to develop competitive business processes. Since a firm is able to extract BPR targets from BITA model, BITA-BPR model contributes to increasing the effectiveness of BPR. This study conducted the pre-survey on factors affecting the effectiveness of BPR. The results show the organization type affects the effectiveness of BPR. Furthermore the cases of Japanese market leaders' business-IT alignment were analyzed based on BITA-BPR model. BPR targets are different by each company pursuing a different value discipline. These results imply organizational types and strategic context in a company influence on alignment and BPR practices.

This study proposed a conceptual framework to increase BPR effectiveness. The next step will be to conduct empirical research to validate BITA-BPR model. More rigorous study on clarifying factors affecting alignment and BPR will be also needed. In addition, research on analyzing the relationship between BPR practices based on BITA-BPR model and a firm's business performance will be required to verify the effectiveness of BITA-BPR model.

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