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Business-IT Alignment in Collaborative Networked Organizations

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Abstract: Organization's concerns as controlling costs, improving quality, increasing effectiveness and managing risk have become increasingly important. Business-IT alignment (B-ITa) is a known solution for such concerns. There is a considerable literature on measuring and improving B-ITa in single organizations but the problem of B-ITa in Collaborative Networked Organizations (CNOs) has hardly been studied. Maturity Models (MM) are newly emerging measurement strategies for businesses/organizations that can help to measure the maturity of the relationship. To assess the maturity of CNOs there exist a number of MMs in this study, researchers consider the most recently developed MM, the IT-Enabled Collaborative Networked Organizations Maturity Model that developed by Santana Tapia.

Key words: Business-IT alignment, ICoNO, collaborative networked organizations, maturity models, quality, Iran

INTRODUCTION

Business-IT alignment definitions: Business change is one of the most outstanding and most pervasive qualities of global economies. There has been some consideration of business change itself but less emphasis has been on studying the outcomes of this change with regard to Information Technology (IT) and its interrelation.

Organizational change requires the information systems architecture of an organization to adjust too. The necessity of adjustment for information systems according to organizational environment adds an important dimension to the general discussion of business-IT alignment. The term B-ITa is already >15 years old (Henderson and Verkatraman, 1993). However, despite years of research, B-ITa still ranks as a major modern-day area of concern for CIO (2008).

MATERIALS AND METHODS

According to a survey by Computer Science Corp (CSC), the top concern for senior IT executives is the alignment of the IT function with their business operations. This alignment means fitting the IT function with the business goals, needs, programs and operating style. It means that the activities of both the IT and business operations are united in one common business purpose (Diamond, 1994). Table 1 shows a summary of several B-ITa definitions.

Table 1: B-ITa definitions

References	Definition
Henderson and Venkatraman (1993)	The allocation of IT budgets such that business functions are supported in an optimal way
Broadbent and Weill (1993)	The degree of congruence of an organization's IT strategy and IT infrastructure with the organization's strategic business objectives and infrastructure
Reich and Benbasat (1996)	The degree to which the IT mission, objectives and plans support and are supported by the business mission, objectives and plans
Chan *et al.* (1997)	The situation that occurs when IS functions are amalgamated with the most fundamental strategies and core competencies of the organization
Maes *et al.* (2000)	A continuous process, involving management and design sub processes of consciously and coherently interrelating all components of the business/IT relationship to contribute to the organization's performance over the time
Duffy (2001)	The process of achieving competitive advantage through developing and sustaining a symbiotic real relation between business and IT
Luftman (2003)	A state where IT is applied in an appropriate and timely way in harmony with business strategies, goals and the needs
Senn (2004)	Ensuring that every single action performed by IT individuals is focused on building and delivering shareholder/stakeholder value by supporting business operations and/or achieving business goals

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Collaborative networked organizations: According to Santana Tapia (2006), a CNO is any mix-and-match network of profit-and-loss responsible organizational units or of independent organizations, connected by IT that work together to jointly accomplish tasks, reach common goals and serve customers over goals based on their collaboration. Different network organizations behave differently for achieving their in perspective of Business-IT alignment (B-ITa) gives rise to the question of how to measure the maturity of the relationship. Maturity Models (MM) are newly emerging measurement strategies for businesses/organizations that can help to measure the maturity of the relationship (Bukhsh, 2010).

RESULTS AND DISCUSSION

The IcoNOs MM: Maturity Models (MMs) are a suitable vehicle for CNOs to gain a deeper understanding of their current B-ITa and to plan what steps to take toward better alignment. To assess the maturity of CNOs, there exist a number of MMs (Luftman, 2003). In this study, researchers identify the most recently developed MM, the IT-Enabled Collaborative Networked Organizations Maturity Model ICoNOs MM (Santana Tapia, 2009b). The ICoNOs MM is a two dimensional framework (Fig. 1). These dimensions represent the maturity levels and the domains to which these levels apply. The ICoNOs MM has five levels of maturity.

Level 1; incomplete: At maturity level 1, processes related to a particular B-ITa domain are usually not performed or partially performed. It means such a particular domain is not explicitly considered when a CNO strives for B-Ita. Therefore, this level contains no processes in the ICoNOs MM.

Level 2; isolated: At maturity level 2, processes are the basic infrastructure in place to support a particular B-ITa domain. They are planned and executed in accordance with a policy; employ skilled people who have adequate resources to produce controlled outputs are monitored, controlled and reviewed. However, such processes are isolated initiatives that are not managed from the entire CNO perspective.

Level 3; standardized: At maturity level 3, processes are directed to make improvements in the standardization and management of a particular B-ITa domain. Processes are performed from a CNO perspective. They are well characterized and understood and are described in standards, procedures, tools and methods.

Level 4; quantitatively managed: At maturity level 4, processes use statistical and other quantitative techniques. Quantitative objectives for quality and process performance are established and used as criteria in managing the process. Quality and process performance is understood in statistical terms and is managed throughout the life of the process.

Level 5; optimized: At maturity level 5, processes are improved based on an understanding of the common

	Partnering structure		IS architecture	
5			Inter-organizational IS Arch Optimization Risk Analysis and Mitigation	IoAO RAM
4	Metric-based Roles Exploration	MRE	Quantitative IS Portfolio Management	QPM
3	Governance Structure and Compliance	GSC	IS Requirements Management IS Capabilities Definition IS Portfolio Management	IsRM IsCD IsPM
2	Business Model Definition Service Level Agreements definition	BMD SLA	Current IS Architecture description	CSA
1				

	Process architecture		Coordination	
5	Inter-organizational Process Optimization Causal Analysis and Resolution	IoPO CAR		
4	Organizational Process Performance Event logs Formal Consistancy	OPP EFC	Quantitative coordination Relation Analysis	QRA
3	Organizational Process Focus Planning Target Process Architecture formulation	PFP TPA	Standardization Communication-Oriented Coordination	STD COC
2	Current Process architecture Description	CPD	Informal Communication Adjustment Direct Supervision	InCA DTS
1				

Fig. 1: The ICoNOs MM (Santana Tapia, 2009b)

causes of variations inherent in the process. The focus of an optimized process is on continuously optimizing the range of process performance through both incremental and innovative improvements (Santana Tapia *et al*., 2008). The ICoNOs MM includes four domains.

Partnering structure: Defined as the inter-organizational work division, organizational structure and roles and responsibilities definition that indicate where and how the work gets done and who is involved.

IS architecture: It defined as the fundamental organization of the information management function of the participants embodied in the software applications that realize this function their relationships to each other and to the environment and the principles guiding its design and evolution.

Process architecture: It defined as the choreography of all (individual and collaborative) processes needed to reach the shared goals of the participants.

Coordination: It defined as the mechanisms to manage the interaction and work among the participating organizations taking into account the dependencies and the shared resources among the processes (Santana Tapia *et al*., 2008).

CONCLUSION

There is a considerable literature on measuring and improving B-ITa in single organizations but the problem of B-ITa in Collaborative Networked Organizations (CNOs) has hardly been studied. Assessing B-ITa in CNOs is a significant challenge. MMs are considered important instrument to access that in this study, researchers are considering the most recent one: The ICoNOs MM, developed by Santana Tapia (2009a). Unlike maturity models for assessing alignment in single organizations, the ICoNOs MM is applicable at the CNO level. This maturity model is a promising attempt to properly understand the domains involved in collaborative business-IT alignment in terms of process maturity.

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