

Chapter 9

The Importance of Strategic Alignment in Enterprise Collaboration

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9.1 Introduction

The aim of this paper is to approach as closely as possible the concepts of IS/IT and business strategic alignment to the business collaboration, as well as to perform a deep analysis of articles that has combined these two concepts. In an effort to gain a better understanding of the concepts and to provide a basis for future research, a broad review of some existing research on the topic has been presented. This paper is organized as follows. In next section, the methodology used in the selection of scientific articles. Secondly, we present a conceptual and comparative analysis of selected articles regarding to strategic alignment and enterprise collaboration. Then, a conceptualization and joint analysis between enterprise collaboration and strategic alignment, and finally, the conclusions and directions for further research.

9.2 Methodology

The search process was carried out with scientific-technical bibliographic databases, as well as web sites related to these themes. The following search criteria were applied: strategic alignment, business strategy and integration (in the strategic alignment field), and strategic collaboration, enterprise integration and collaborative planning (in the enterprise collaboration field). The main selection criteria of articles were: the number of times cited and the most recent year of publication (after 2007), without leaving aside the articles prior to this date that form the theoretical basis on the issues investigated. The majority of the citations

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were found in journals (44 %), conference (28 %), book chapter (18 %), web documents (5 %) and PhD thesis (5 %).

9.3 Conceptualization of Enterprise Collaboration

Increasing profits and customer value generation forces enterprises to not compete individually, due to competition among SCs, so it is necessary to have a high degree of integration among partners that take part in these SCs (Plaza et al. 2010 and McIvor and McHugh 2000). This degree of integration may be achieved through collaborative mechanisms to ensure the alignment of individual plans in the search for a goal or joint plan. In this point, collaboration emerges as a tool that allows SC members to make decisions together, based on shared and exchanged information, to coordinate and synchronize activities.

According to the main elements about enterprise collaboration provide by: Stadler and Kilger (2002), Alarcón et al. (2004), Alarcón (2005), Petersen et al. (2005), Ribas et al. (2006, 2007), Stadler (2009), and Dudek (2009), we define enterprise collaboration, as: “A joint process between members of the SC, where the decisions are made jointly, based on the information shared and exchanged on a bilateral form, achieving coordinate and synchronize joint activities to meet customer requirements and achieve process efficiency sets to generate a mutually beneficial” (Vargas et al. 2011b).

9.3.1 Collaborative Process Description

For Kilger et al. (2008), the collaboration process consists of six activities: (1) Definition, (2) Planning in the local domain, (3) Plan of exchange, (4) Negotiating and exception handling, (5) Execution and (6) Measurement of results. However, a crucial aspect has not been taken into account in this generic process for determining efficient collaboration: this is the definition of how to share benefits equitably to ensure the stability of the collaboration (Audy et al. 2010). The solution to this aspect is provided by Stadler (2009), which proposes a system of compensatory payments. This system may be agreed on the definition phase of the negotiation and exception handling and can be implemented when the results are evaluated. Other aspect not considered in the process of Kilger et al. (2008) is the feedback between parts once the collaboration process has been completed in the stipulated horizon, which allows reviewing and modifying the plan if it is necessary.

9.4 Conceptualization of Strategic Alignment

Nowadays, IT and IS have acquired a strategic role within organizations and this function has increased the impact on business strategy providing competitive advantages. Companies manage the technological complexity of their IS in order to generate added value to business processes. This can only be achieved if there is an alignment between business and IS/IT. This concept became stronger in the 1990s thanks to the Strategic Alignment Model (SAM) proposed by Henderson and Venkatraman (1993) although the theory suggests that there should be a strategic fit between the internal and external domains of both business and IT and also there should be a functional integration between business and IS/IT, in fact the implementation of the alignment is quite complicated to carry it out, because of the studies, models and/or frameworks developed for this purpose are scarce and often their utility have not been validated in the real world.

Several authors have defined the term strategic alignment (Luftman and Brier 1999; Luftman 2000; Maes et al. 2000; Pereira and Sousa 2005; Erosa and Arroyo 2008; Chen et al. 2008; Adaba et al. 2010; Chen 2010; Cuenca et al. 2010), according to the most important elements provided in these definitions, we suggest the following: “The strategic alignment of business and IS/IT is a dynamic and continuous process that enables integration, adjustment, consistency, understanding, synchronization and support between business strategies and strategies of IS/IT, in order to contribute and maintain the correct performance of the organization, creating a competitive advantage that is sustained over time”.

However, while the concept of strategic alignment is easy to understand (Thevenet and Salinesi 2008), its application in the enterprise is not easy to carry out (Chen et al. 2008) due to a complex business environment (Hu and Huang 2006) and frequent organizational and infrastructure changes faced by enterprises.

9.4.1 Main Models and Frameworks of Strategic Alignment

The field of strategic alignment is reinforced by SAM exposed by Henderson and Venkatraman (1993), but their bases are theoretical and not practical. The alignment maturity model (AMM), by Luftman (2000), presents a practical component that SAM does not have; this model is based on the conceptual concepts treated in SAM where, practical aspects for strategic alignment are included. Proposing a model to measure the degree of business and IS/IT alignment maturity enables the company to identify, how it is, where and how to improve (Vargas et al. 2011a).

Several authors have extended or used SAM from different conceptual aspects seeking to ensure strategic alignment (Maes 1999; Wang et al. 2008; Luftman and Brier 1999; Thevenet and Salinesi 2008; Hu and Huang 2006; Marques et al. 2005; Mekawy et al. 2009; Dong et al. 2008; Weiss and Anderson 2004; Cuenca et al. 2010, 2011a; Cuenca 2009; Maes et al. 2000). Other proposal have been based on

the AMM to propose practical conceptual models (Luftman 2003; Adaba et al. 2010; Chen 2010; Erosa and Arroyo 2008; Bagher et al. 2010). However, all these previous models can only be applicable to the individual business, but it is clear that the atmosphere of competition in the market is quickly changing towards a more collaborative environment, in this sense, some authors have proposed models or frameworks for alignment in the inter-enterprise context (Derzsi and Gordijn 2006; Santana et al. 2008), or have been taken into account the social factors of alignment (Lee et al. 2008; Pijpers et al. 2009).

9.5 Conceptualization and Analysis of Enterprise Collaboration and Strategic Alignment

Although the need for collaboration among members of an SC is evident to lean on IS/IT to support the joint business, very few studies have been tackled these issues together: Derzsi and Gordijn (2006) address the issue of strategic alignment in supply chains or networks, although the issue of collaboration has not been addressed specifically, it is considered an intrinsic part of the structure of the current SC; Pijpers et al. (2009) address the strategic alignment from the design of the company and they take into account the inter-organizational relationships that the company and its partners should have; finally, Santana et al. (2008) deal with the alignment by defining a maturity model for collaborative networks alignment.

In order to perform a conceptual analysis of the aspects that are taken into account in strategic alignment models in collaborative environments, we have identified the components of the previous researches of alignment, and checked which are covered by these models. Table 9.1 shows the required components defined by Cuenca (2009), Henderson and Venkatraman (1993) and Luftman (2000). The nomenclature used is explained below: The “+” means that the alignment component is covered by the model using the same or similar name, “–” means that the component is not covered by the model and the “/” means that the component is not defined in the model explicitly but it is defined implicitly. According to this analysis, all models include, explicitly or implicitly defined alignment components of Henderson and Venkatraman (1993), the components defined by Cuenca et al. (2011b), are not completely covered by these models, and the AMM of Luftman (2000), is only used in the model of Santana et al. (2008).

On the other hand the Table 9.2 shows the relationship between the phases of the collaborative process discussed in Sect. 9.3.1 and models of alignment of business and IS/IT in collaborative environments, in order to identify which aspects of collaborative process covering these models, the conventions used are the same as in the Table 9.1.

The phases for collaborative processes are not covered by any of the models, only implicitly the planning in the local domain and the exchange program are covered in the three models. This means that models of alignment in collaborative

Table 9.1 Analysis of the components of strategic alignment and strategic alignment models in collaborative environment

Research	Component strategic alignment	Author, year		
		Pijpers et al. (2009)	Santana et al. (2008)	Derzsi and Gordijn (2006)
Henderson and Venkatraman (1993)	Business strategy	+	+	+
	Organizational and processes infrastructure	+	+	+
	Infrastructure information systems	+	+	+
	IS/IT strategy	/	/	/
Cuenca et al. (2011b)	IT conceptualization	/	/	/
	Application and services portfolio	-	-	-
	Alignment heuristics	-	-	-
	Strategic dependencies model	-	-	-
Luftman (2000)	Alignment maturity model	-	+	-
	Alignment maturity model	-	+	-

Table 9.2 Analysis between the process of collaboration and strategic alignment models in collaborative environment

Phase of the enterprise collaboration process	Author, year		
	Pijpers et al. (2009)	Santana et al. (2008)	Derzsi and Gordijn (2006)
Definition and collaboration agreement	-	-	-
Planning in the local domain	/	/	/
Plan of exchange	/	/	/
Negotiation, exception handling and compensation system	-	-	-
Execution	-	-	-
Measurement of results and implementation of compensation plan	-	-	-
Feedback and review of the plan	-	-	-

environments have been more concerned to conceptualize alignment in collaborative environments, which propose methodologies to ensure the effectiveness of these concepts within complex collaborative processes.

9.6 Conclusions and Future Lines of Research

Few studies have addressed the issues of enterprise collaboration and strategic alignment together. They have proposed conceptual models or alignment

frameworks in collaborative environments. However, in most cases, they lack empirical evidence and practice of the effectiveness of these models.

There are more similarities than differences between the three alignment models proposed in collaborative environments, all components of conceptual models of collaboration are common to each other, agreeing the three models in the conception of the need for integrated objectives between partners collaboration, to facilitate joint value creation through the definition of integrated objectives that are supported by IS to achieve interoperability of the joint business and integration of individual processes.

The three models of alignment in collaborative environments have been comparatively analyzed from two different perspectives: the relationship of the models with the theories of alignment and relationship of the models with the collaborative process. The results of this analysis show that the models take into account in their structure all the conceptual aspects of strategic alignment, but the methodological aspects of the collaborative process are sorely lacking. This fact generates a possible line of research, seeking to extend the conceptual models of alignment in collaborative models that provide not only theoretical aspects but also practical aspects such as generating methodological proposals to guide the implementation of the alignment models in collaborative environments.

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