

STRATEGIC AND TACTICAL ANTECEDENTS IN IT ALIGNMENT: EVIDENCE ON CATALAN SME

Montserrat Griñó and Francesc Miralles

*La Salle - Ramon Llull University
Lluçanes, 41 - 08022 Barcelona SPAIN*

ABSTRACT

IT alignment is one of the hot topics in the IT executives' agenda. Scholars in this research strand claim for a deeper understanding of the relationship between IT alignment and business performance. Recent research focuses on IT alignment antecedents.

This research in progress work aims to participate in this goal. The authors have designed a research work for SME in Catalonia. Their main goal is to increase knowledge in this field by providing scientific evidence in a specific cultural and geographical environment.

This paper relates the preliminary results of the first phase of the research. A qualitative approach has been used to validate the initial model. Thirteen semi-structured interviews have been issued to Catalan SME firms. Most of them consider their firms have an IT alignment at the operational level but they lack strategic and tactical elements in their firms' alignment.

Based on these results this paper proposes a new theoretical model that hypothesizes a specific and delimited role for strategic and tactical antecedents for IT alignment. Further steps will provide a quantitative analysis of this model.

KEYWORDS

Strategic alignment of IT, Organizational performance, business strategy, information systems strategy, antecedents of alignment.

1. INTRODUCTION

IT alignment is one of the topics with a predominant presence in the agenda of IT practitioners and business top executives (Luftman and Kempaiah, 2007). Their main concern is to increase their business performance through a correct alignment of the business strategy and the IT strategy. In this context, IT alignment is measured as the degree to which the mission, objectives and plans contained in the business strategy are shared and supported by the IT strategy (Chan et al, 2006, Reich and Benbasat, 1996).

Nevertheless, research is fragmented on the factors that affect this alignment and their impact on business performance. Moreover, most of the studies are based on American firms and there is a shortage of evidence for other regions of the world.

In this research in progress work the main goal is to analyze the IT alignment of Catalan SME under the perspective of the research results in other regions. The motivation of this work is based on the fact that Catalan firms have a different organizational structure compared to US or UK firms. This paper reports the first part of the work. In this first phase, a qualitative approach has been issued in order to frame the model requirements and to include all the variables in the model.

As a consequence of the qualitative phase of this research work, the authors propose new variables in the initial model to explicitly investigate the role of strategic and tactical antecedents in IT alignment. The research question of this work is: Do strategic and tactical antecedents play a differentiate role over operational antecedents on IT alignment in Catalan SME firms?

This paper is structured in the following way. Section 2 describes the relevant concepts on IT alignment. The subsequent section provides the theoretical model and its qualitative validation description. Main results of the qualitative analysis are included in the following section. This paper ends by highlighting this paper's contributions and proposing the following steps in this research work.

2. LITERATURE REVIEW

Although there is widely empirical evidence on the effect of IT alignment on firm's performance (Chan and Reich, 2007, Reich and Benbasat, 1996), this effect depends on the type of organization, economic sector and type of strategy (Chan et al, 2006, Sabherwal and Chan, 2001). Most of the research work has been pursued in countries with a strong influence of an Anglo-Saxon culture (Chan et al, 2006, Reich and Benbasat, 1996, and Hussin et al, 2002). In addition, some research work provides a lack of evidence for the relationship between IT alignment and firm performance for some types of strategy (Sabherwal and Chan, 2001). Therefore, lack of generalizability and contradictory results suggest new research opportunities.

This work's goal is to shed some new light on the relationship of IT alignment and firm performance. To accomplish this goal we need to explore, types of strategy, relationship between IT alignment and firm performance and, finally, Catalan firm's peculiarities.

2.1 IT Alignment

Kaplan and Norton (2006) propose IT alignment as a source of economic value for firms. Based on this proposal, firms must develop their capabilities to foster the alignment of their IT strategy and their business strategy. IT alignment has been defined as the "fit" (Venkatraman, 1989) between the business strategy and the IT strategy.

Initially, IT alignment research efforts focused on the delimitation of the need of IT alignment and on its benefits (Reich and Benbasat, 1996). Further steps in this research strand provided empirical evidence for a causal relationship between IT alignment and business performance (Sabherwal and Chan, 2001). Most of these studies were performed in Anglo-Saxon countries and found partial evidence of causality between IT alignment and business performance.

Thus, research literature remains inconclusive on the relationship between IT alignment and business performance (Chan and Reich, 2007). More research is needed to clarify if business strategy type, economic sector, and cultural background of the executive management and other stakeholders can affect causality between IT alignment and business performance (Chan and Reich, 2007).

2.2 Business Strategy and IT alignment

Sabherwal and Chan (2001) used Miles and Snow's (1978) business strategy taxonomy to analyze this causality. They reported a lack of evidence for companies with a Defender strategy but a sound evidence for companies with strategies Analyzer and Prospector.

From the perspective of this work, these conclusions depend, at least, on the characteristics of the firm and on the relationship between a firm and the economic sector. The implementation of the strategy (Chan et al, 2006) tend to be conditioned by some external factors that can depend on cultural settings, characteristics of the company and social and legal environment that surrounds firm's activity.

2.3 Antecedents of Alignment

Recent research studies have proposed to introduce antecedents or factors affecting firms' alignment in IT alignment research. Different groups of antecedents have been tested. In this vein, Chan et al (2006) examine a theoretical model based on a selection of antecedents proposed by five prior studies that empirically obtained them. Chan et al's (2006) antecedents are Shared Domain Knowledge, Planning sophistication, Prior IT Success, Organizational size, and Environmental Uncertainty.

Luftman's (2000) proposed an alignment maturity model that classifies firms in five levels depending on their evolution in the alignment process. Based on Luftman's (2000) maturity model, Sledgianowski et al (2006) developed and tested another set of alignment antecedents derived from Luftman's alignment maturity levels. These antecedents are Communications maturity, Competence or Value measurement maturity, Governance maturity, Partnership maturity, Technology scope maturity, and Skills maturity. Chen (2008) validates Luftman's antecedents for a sample of Chinese firms.

2.4 Characteristics of the Firms' Sample Based on Business Strategy, IT Strategy and Cultural Values

As it has been mentioned most of the studies on IT alignment have been carried out in Anglo-Saxon environments. The first approach would be to consider that this behavior can be extrapolated to any country around the world. To support this approach it could be argued that globalization tends to make more homogeneous the business environment and most of the companies in this global world share a common substrate that makes the strategic environment and the IT orientation very similar around the globe. Conversely, if American businesses are compared to European ones some significant differences can be found at various levels. On the one hand, the political, social and economic environment that surrounds European business shows specific characteristics that make difficult to compare the effects of the competitive strategies in both markets (Mulhern, 1995).

On the other hand, cultural values have been reported to provide a different attitude and behavior in some aspects of management (Tsui et al, 2007). Evidences on the cultural differences between Europe and the US can be found in some of the work related to culture indicators. In this sense, Hofstede's work (Hofstede and Hofstede, 2005) reported that Spain showed a significant difference in terms of some of the culture indicators.

Finally, in spite of the evidence on the influence of cultural values on IT management (IT planning, IT alignment, and IT strategy) there is a lack of research outcomes on these areas (Leidner and Kayworth, 2006).

From the point of view of this study the main interest is based on Catalan businesses. Catalonia is one of the autonomous regions in Spain and there is a long history on the development of its business environment. In addition to the specific cultural values, this region has experienced a specific behavior related to IT. Based on statistics from EUROSTAT (<http://ec.europa.eu/eurostat>) and INE (www.ine.es), Catalonia has the following characteristics related to IT in enterprises. Catalan companies, on average, have a higher use of IT infrastructure as computers per employee (Catalonia: 55%, European Union: 49%) or bandwidth telecommunication lines (Cat: 99%, EU: 81%) than the European average. Conversely, IT usage in Catalan firms is lower than the European average. For example, the percentage of enterprises that have purchased orders on the Internet (Cat: 23%, EU: 28%) is lower in the Catalan firms than in Europe.

Based on this literature, it makes sense to study the relationship between business strategy and IT strategy in a context where cultural values and business environment have a different behavior related to the extant literature on IT alignment. Furthermore, this work wants to contribute to the current scant evidence on the difference on IT alignment between countries with different cultural values (Leidner and Kayworth, 2006)

3. INITIAL VALIDATION OF THE THEORETICAL MODEL

This paper reports on the first phase of a research work based on a survey to Catalan SME companies to analyze the relationship between IT alignment and business performance. In this first phase, the authors have raised the qualitative analysis of the research problem. The main goal of this part is to identify how Catalan companies relate business strategy to IT alignment and to propose a set of elements that can complete the quantitative model.

This research initial model has been based on prior research (Chen et al, 2008, Sledgianowski et al, 2006) and includes the main variables for this study. In this model IT alignment antecedents are positively related to IT alignment and IT alignment is positively related to Business Performance.

Thirteen CEO and CIO have been interviewed with a semi-structured interview. All interviews were recorded and the results were analyzed by two of the authors. The main traits of the interviews are outlined in the following paragraphs.

Most of the participants in this qualitative phase of the study feel that they are in an ongoing process to improve IT alignment. Because of IT evolution and the need to support their business activities and processes their firms have introduced IT applications and systems. For most of the companies, IT implementation was a matter of survival in the new competitive environment and the interviewees feel that their firms are far to get some of the IT alignment antecedents, mainly at strategic and tactical levels. A common feeling among interviewees is that IT applications and systems provide effectiveness and efficiency in supporting operation

on a daily basis but they expect, among others, a better leadership from general management and a deeper involvement of all level business managers in IT planning.

Most of the sample companies have some degree of IT alignment. They have shown a trend to increase their IT alignment. In most of the cases the fit between IT strategy and business strategy have been propelled by IT evolution and business trends. These companies share some of the following traits: recently, they have moved from an IT support focus to a business strategy support, they are in a process to train and to educate management staff in order to introduce IT in business processes and operations, daily activities have a predominant role in IT function, they are introducing new management tools in order to assure quality in IT activities, and, finally, people in the company are enhancing their perception about IT, but they don't feel that IT is part of the business strategy.

Based on these preliminary results the authors propose to modify the first model and to include specific variables to make explicit the different levels of IT alignment antecedents.

4. CONCLUSIONS AND FURTHER STEPS

This paper outlines the first phase of a research work that focuses on the relationship between IT alignment and business performance. This study wants to shed some light on IT alignment based on the characteristics a specific region. Preliminary results of the qualitative phase show that IT alignment antecedents need to be detailed to grasp all the peculiarities of the sample companies. Specific variables for strategic, tactical and operational IT alignment antecedents are going to be included in the final model.

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