Chapter 33
Strategic IT Alignment: Business Performance During Financial Crisis

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Abstract Information Technology has become a significant tool for businesses who act in an unsustainable environment. The need for the strategic use of Information Technology in order to add value to businesses is more urgent for Small-Medium Enterprises (SMEs) which have been negatively affected from financial crisis. The strategic use will be achieved by aligning business strategy, objectives, and planning with Information Systems. Strategic alignment has an impact not only on firm's profitability, but on the increase of sales, on the customer's satisfaction, and on the competitive advantage as well. Strategic use of information management increases the knowledge about customers' and market's needs, as well as about the environmental circumstances, and gives the opportunity to businesses to produce new products and services which meet market's needs and increase firm's profitability and competitiveness. A major factor which affects the strategic alignment, except information handling, is the support of information technology by managers and the creation of a related business culture. This paper aims to provide a holistic approach for issues about strategic alignment and ending up to proposes for SMEs in order to implement the alignment process and increase their firm's performance. The analysis of strategic alignment starts with its necessity and importance, as well as the presentation of steps and factors which influence the success of the process, the link with firm performance follows, and it concludes to the presentation of the need to be implemented by SMEs in order to increase their competitive advantage in the current turbulent financial environment.

Keywords Business strategy • Information technology • Alignment • Performance • SMEs

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33.1 Introduction

Achieving alignment between business and Information Technology has been a fundamental issue for many years, and many researchers, businesses, Information Technology executives, and consultants have sternly investigated and focused on this field since 1970 (Benbya and McKelvey 2006; Rahrovani et al. 2014; Ullah and Lai 2013). Researchers have thoroughly investigated this research area in order to understand the relationship between strategic alignment and the business value of using Information Technology.

Businesses frequently face changes in the environment. In this environment of innovation and strong market competition, businesses need Information Systems which meet the needs of the business according to its goals, which affects the process of business by using Information Technology alignment. The development of successful Information Systems needs understanding both the system requirements and the business activities. Achieving alignment from the development of Information Systems includes supporting the organizational stakeholders to effectively meet business goals (Ullah and Lai 2013).

Researchers argue that the alignment between organizational aspects such as strategy, structure, management processes, individual roles, and skills with technology can lead to increase the value for businesses and Information Systems effectiveness and business performance (Rahrovani et al. 2014; Suh et al. 2013).

Alignment has been defined as the degree to which the Information Technology mission, goals, and plans are maintained and supported by the business mission, goals, and plans (Kwanroengjai et al. 2014; Oh and Pinsonneault 2007; Reich and Benbasat 2000; Suh et al. 2013).

The most prevalent model includes the following elements to measure alignment: organizational strategy, structure, and technology. This framework examines the relationship between different strategy components, such as business strategy, organization infrastructure and process, Information Technology strategy, and Information Technology infrastructure and process (Bergeron et al. 2004; Chatzoglou et al. 2011; Henderson and Venkatraman 1999).

Previous researchers show that little empirical surveys have been implemented in order to highlight the factors which affect the success of the alignment process (Chan et al. 2006). The results of these papers conclude to the following major factors, the handling of information and the support of managers to use Information Technology.

The alignment of Information Technology and business strategy leads to the increase in profitability, competitive advantage, sales, and the reduction of business costs (Andersen 2001; Bergeron et al. 2004; Chatzoglou et al. 2011; Croteau and Bergeron 2001; King and Teo 2000; Oh and Pinsonneault 2007).

SMEs act in the current complex financial environment, and they require information in order to produce innovative products and services because they aim to survive and to be more competitive. Alignment between business strategy and Information Technology will support this effort, so it is proposed for SMEs to investigate the current model of alignment and the factors which affect the process and to combine them in order to achieve their goals. Managers from SMEs should be

informed both about business issues and Information Technology in order to make more effective decisions on account of their profitability.

In this view, the purpose of this paper is to analyze the current framework of the alignment process and to highlight the link with firm performance and especially the need for SMEs to implement this process in order to respond to the current environmental situations.

The structure of this paper is as following: after a brief introduction to alignment, the effects on firm performance and the success factors are discussed and the need for an approach based on this link for SMEs is presented. Next section includes the description and the implementation of the literature review methodology which was followed in order to highlight the issues which are discussed in this paper. Then a theoretical framework is analyzed based on the literature review about strategic alignment, the influence on firm performance, the success factors, and the impact and necessary of strategic alignment for SMEs. Next the final section which concludes the paper proposes many important observations for the implementation of the alignment process in SMEs.

33.2 Literature Review Methodology

Literature review is very important and the initial idea is a compilation of summaries and literature of previous studies. The quality of the literature review is important since it determines the way in which researchers combine the different parts of the studies and how they have been analyzed. Finally, it highlights areas that require further research.

Three steps are suggested by this methodology of literature review to achieve effective implementation of the above. These are the search, in which the definition of keywords and databases, and the selection of individual topics, is analyzed, then the "backward search," and, finally, the "forward search." At the end, the analysis and synthesis of the central ideas of articles follow (Webster and Watson 2002).

This methodology was used by plenty of researchers in the field of Information Systems and business management. So, this methodology was selected by the authors of this paper because it refers to Information Systems and to the concept of this paper in terms of strategic alignment and Information Systems Planning.

As primary and decisive stage of the search of articles seemed appropriate, an initial and general search on the issue of Strategic Information Systems Planning and alignment has been conducted concerning and corresponding literature reviews that have been implemented by previous researchers to create a basic idea of the concepts resulting. Databases and keywords are selected from these literature reviews on the field. Databases are Scopus, Science Direct, Web of Science, and ABI/INFORM, and searching was done with keywords: "information strategy and business strategy alignment," "information systems strategy and business strategy and innovation," "information systems strategy," "business strategy and firm performance," "strategic information systems and planning," "strategic information systems planning and competitive advantage," "strategic information systems planning and firm performance," "strategic information systems planning and innovation," "strategic

information systems planning phases," and "strategic information systems planning success." Articles are only in English and are published in scientific journals or conferences, not in books. Articles should have 15 citations, except for articles which have been published in peer-reviewed journals.

Having searched all databases, titles and abstracts of the relevant publications were scanned, and the citations and references of the residual articles were then reviewed. A total of 88 article results consist the final sample.

Search was completed when it resulted in common articles from all databases and different combinations of keywords. It was then that the critical mass of relevant literature sources was considered as having been collected.

Articles were classified in three categories according to their concept. These categories were alignment, firm performance, e-business/Internet, Information Systems (IS) resources, Strategic Information Systems Planning (SISP), Strategic Information Systems Planning (SISP) phases, Strategic Information Systems Planning (SISP) success, Information Systems (IS) planning and success, innovation, and management commitment.

Table 33.1 shows only the papers which are based on alignment and firm performance concepts and the other concepts which are related with them. The basic concepts related with alignment are firm performance and Strategic Information Systems Planning. Alignment has been investigated since 1991. This result confirms that alignment is a concept which has been investigated since previous decades.

The results of the articles show that in the current rapidly changing environment, businesses need resources and capabilities in order to be competitive and to increase their competitive advantage. Businesses compete in the digital economy, and they aim to transform themselves in e-businesses, so the Internet and Information Systems are very significant tools that contribute to this effort. Businesses have the opportunity to develop new products and services according to customer needs, to personalize their services, to collaborate with them in order to develop successful new products and services, and to reduce the introductory time of new products and services in the market. The results of these activities are the increase in competitive advantage, firm performance, profitability, customers' satisfaction, and market share. Customers perceive the value of new products and services, and they are satisfied and thus prefer to buy products and services which were developed with their contribution. So this customers' behavior leads to the increase in firm performance. Another precious opportunity of businesses is that they can collect data for customers and competitors with the use of Information Technology. Collecting these information businesses are able to learn about customers' needs and their competitors' offers, and they can not only develop new products and services according to their needs but also differentiate from competitors.

In order to achieve the above, businesses need resources and capabilities, not only technological but strategic, as well. Information Technology and business strategy should be aligned because Information Systems support business's goals and strategy in order to increase firm performance. Organization structure should be aligned with Information Systems architecture in order to design new products and services and to integrate business processes according to the vision and mission. In order to support their strategy and goals by the use of Information Systems,

Table 33.1 The number of selected articles and their concept matrix analysis with related concepts

			Concepts									
	Author	Method	Alignment	Firm performance	E-business/ Internet	IS resources	SISP	SISP phases	SISP success	IS planning and IS success	Innovation	Management commitment
1.	Coltman et al. (2015)	Literature review	x								x	
2.	Maharaj and Brown (2015)	Survey	x				x					
3.	Kwanroengjai et al. (2014)	Case studies	x									
4.	Yang and Pita (2014)	Survey	x						x			
5.	Rahrovani et al. (2014)	Survey	x									
6.	Hovelja et al. (2013)	Survey		x			x		x			
7.	Suh et al. (2013)	Survey	x	x								
8.	Yang et al. (2013)	Survey					x		x			
9.	Ullah and Lai (2013)	Literature review	x	x							x	
10.	Merali et al. (2012)	Literature review		x		x	x					
11.	Mirchandan and Lederer (2012)	Survey	x					x				

(continued)

Table 33.1 (continued)

			Concepts									
	Author	Method	Alignment	Firm performance	E-business/ Internet	IS resources	SISP	SISP phases	SISP success	IS planning and IS success	Innovation	Management commitment
12.	Yayla and Hu (2012)	Survey	x	x								
13.	Bulchand-Gidumal and Melián-González (2011)	Survey		x		x						
14.	Chatzoglou et al. (2011)	Survey	x	x								
15.	Leidner et al. (2011)	Survey		x						x		
16.	Mithas et al. (2011)	Survey		x		x						
17.	Wei and Wang (2011)	Survey		x							x	
18.	Lin et al. (2008)	Survey		x							x	
19.	Zhao et al. (2008)	Survey		x	x	x						
20.	Booth and Philip (2007)	Literature review	x						x			
21.	Chan and Reich (2007)	Literature review	x									

22.	Oh and Pinsonneault (2007)	Survey	x	x								
23.	Benbya and McKelvey (2006)	Literature review	x									
24.	Chan et al. (2006)	Survey	x	x								
25.	Fairbank et al. (2006)	Survey		x						x		
26.	Newkirk and Lederer (2006)	Survey	x				x					x
27.	Pai (2006)	Survey	x				x					
28.	Piccoli and Ives (2005)	Literature review		x		x						
29.	Bergeron et al. (2004)	Survey	x	x								
30.	Cao and Schniederjans (2004)	Survey	x		x							
31.	Nathan et al. (2004)	Survey	x	x								x
32.	Peppard and Ward (2004)	Literature review	x	x		x					x	
33.	Rathnam et al. (2004)	Case studies	x									

(continued)

Table 33.1 (continued)

			Concepts									
	Author	Method	Alignment	Firm performance	E-business/ Internet	IS resources	SISP	SISP phases	SISP success	IS planning and IS success	Innovation	Management commitment
34.	Kearns and Lederer (2003)	Survey	x	x								x
35.	Sambamurthy et al. (2003)	Literature review	x	x		x						
36.	Croteau and Bergeron (2001)	Survey	x	x								
37.	Andersen (2001)	Survey		x	x		x					
38.	Bergeron et al. (2001)	Survey	x	x								
39.	King and Teo (2000)	Survey	x	x			x					
40.	Kearns and Lederer (2000)	Survey	x	x		x						
41.	Reich and Benbasat (2000)	Survey	x									
42.	Teo and Too (2000)	Survey	x		x							

43.	Henderson and Venkatraman (1999)	Survey	x									
44.	Martinsons et al. (1999)	Case studies	x	x								
45.	Teo and Ang (1999)	Survey	x									
46.	Mentzas (1997)	Literature review	x					x				x
47.	Powell and Micallef (1997)	Survey	x	x		x						
48.	Galliers et al. (1994)	Literature review	x				x		x	x		x
49.	Luftman et. al. (1993)	Literature review	x	x								
50.	Jay (1991)	Literature review		x		x						
51.	Clemons and Michael (1991)	Literature review	x							x	x	
52.	Brancheau and Wetherbe (1987)	Survey		x		x	x			x		

businesses follow the process of Strategic Information Systems Planning, which has specific phases in order to select the appropriate Information Systems and plan their use, according to their strategy. One dimension of the measurement of Strategic Information Systems Planning success is the degree of alignment. The result of this measurement will conclude by noting to what degree businesses support their goals with the use of Information Systems in order to increase firm performance.

SMEs are important for national economy, because they constitute the entire business of a country and they have been negatively influenced by financial crisis. Although gathering information is a difficult process especially for SMEs, it is necessary in order to face financial crisis. The process of gathering information should be strategic. SMEs try to survive in the current turbulent environment. In order to be innovative and to achieve rapid growth, it needs to align business and Information Technology strategy.

In the following sections, alignment and its impact on firm performance are examined and conclusions for SMEs are presented in order to increase their competitive advantage through alignment in the current unsustainable financial environment.

33.3 Theoretical Framework

33.3.1 An Overview of Alignment

Achieving alignment between business and Information Technology has been a fundamental issue for many years, and many researchers, businesses, and Information Technology executives and consultants have sternly investigated and focused on this field since 1970 (Benbya and McKelvey 2006; Rahrovani et al. 2014; Ullah and Lai 2013). Aligning business goals with Information Technology is still one of the most important research issues in management of technology (Croteau and Bergeron 2001). Nowadays, the alignment is one of the most often researched concepts for both businesses and academic.

Researchers have thoroughly investigated this research area in order to understand the relationship between strategic alignment and the business value of using Information Technology. In this light of these investigations, researchers have identified the following types of alignment between business and Information Systems strategy and structure. The first type concerns business alignment and specifically the alignment between business strategy and structure. The second type regards Information Systems alignment and includes issues such as alignment between Information Systems strategy and structure. Last, the third type presents a cross-dimension alignment which comprises alignment between business structure and Information Systems strategy or business strategy and Information Systems structure. Researchers argue that the alignment between organizational aspects such as strategy, structure, management processes, individual roles, and skills with technology can lead to increase value in businesses and Information Systems effectiveness and business performance (Rahrovani et al. 2014; Suh et al. 2013).

The achievement of a high-degree alignment between Information Technology and organizational goals has been referred to as one of the key issues for Information Systems managers (Reich and Benbasat 2000). In this context both the business and Information Technology are combined, providing services with the support of Information Technology at all levels of the business in order to effectively achieve its goals. A definition of alignment mentions that this concept regards on the degree of fit and integration between business strategy, Information Technology strategy, business infrastructure, and Information Technology infrastructure (Ullah and Lai 2013). Other researchers have defined alignment as the degree to which the Information Technology mission, goals, and plans support and are maintained by the business mission, goals, and plans (Kwanroengjai et al. 2014; Oh and Pinsonneault 2007; Reich and Benbasat 2000; Suh et al. 2013). Chan and Reich (2007) add to the previous definition the completion among business strategy, Information Technology strategy, business infrastructure, and Information Technology architecture.

Alignment includes the following basic concepts. Firstly, concerning on the business side are business planning, business strategy, and the tactical and business operational level. Second, the Information Technology side comprises Information Technology planning, Information Technology strategy, and the tactical and Information Technology operational level (Henderson and Venkatraman 1999; Luftman and Brier 1999; Luftman et al. 1993; Ullah and Lai 2013). Strategic Information Technology alignment is unique for each business because it combines business and Information Technology knowledge in order to support business objectives, which are singular resources for each business (Kearns and Lederer 2002).

Since alignment can be defined as the degree of completion between business strategic orientation and Information Systems strategic orientation and since it specifically focuses on how that linkage can be achieved, both business strategy and Information Systems strategy should be developed side by side. Alignment between business and Information Systems should be considered as a continuing process rather than as an occurrence. Senior business managers and Information Systems managers should collaborate in order to design and evaluate Information Systems plans. This effort contributes to the successful implementation of the alignment process in order to support the need of an ongoing process (Booth and Philip 2007). Another critical factor which strengthens this partnership is the business culture. Major components are shared values, beliefs, and behavioral norms which are required in order to maintain organizational culture.

Researchers widely admit that the process of alignment is significant for businesses for several reasons. The initial benefit is to effectively determine the role of Information Technology which efficiently supports the business to achieve its goals. Second, another advantage is that alignment motivates businesses to meliorate both their business scope and their infrastructure by improving the relationship between business components and Information Technology. Researchers point out that the existing alignment models are mostly business driven rather than Information Technology driven. Consequently, more attention should be paid to Information Technology in order to define the better way in which it can support the organization.

Businesses should not only know but also should make their business strategy clear so as this support to be achieved by means of Information Technology (Ullah and Lai 2013).

The most prevalent model includes the following elements to measure alignment: organizational strategy, structure, and technology. This framework examines the relationship between different strategy components, such as business strategy, organization infrastructure and process, Information Technology strategy, and Information Technology infrastructure and process. Information Technology strategy can be presented as a dimension, which includes competencies, role of Information Technology, systems design and development, and Information Technology infrastructure. Strategic orientation of Information Systems focuses on presenting an application portfolio which includes the dimensions of aggressiveness, analysis, defensiveness, futurity, proactiveness, risk aversion, and innovativeness. Strategic orientation, Information Technology, and organizational structure have an impact on performance when aligned rather than when each of them is regarded independently. Strategic orientation: Aggressiveness concerns with the allocation of business resources and business's improved position, in order to increase market share faster than competitors. Analysis refers to a business's capability to secure advantage in a competitive market. Defensiveness reflects on supporting a business to tight marketplace alliances with its customers, suppliers, and distributors. Futurity aims at the degree of the business preparation for positioning in future environmental situations. Proactiveness refers to the introduction of new technologies, which allows the realization of pioneer advantages. Finally, riskiness aims in present how decisions are made and how action is taken. Business structure can be measured by five dimensions, which are specialization, vertical differentiation, professionalization, formalization, and centralization (Bergeron et al. 2004; Chatzoglou et al. 2011). Business structure refers to a method in which organizations, departments, functions, and people are combined and interact with each other in order to succeed in common business objectives. According to business performance, businesses should select the right structure because not all types of structures are suited to all businesses or people (Ullah and Lai 2013). The Information Technology strategy component contains two dimensions. The first is Information Technology environment scanning which represents the degree of the business having the capability of discerning and reacting to technological changes differentially from its competitors. The second is strategic use of Information Technology which displays the degree of the use of Information Technology to increase quality, competitiveness, and performance. The Information Technology structure component has one dimension relating to Information Technology planning and control and another dimension which is Information Technology acquisition and implementation. This dimension relates to the effective selection and introduction of new IT applications by managers (Bergeron et al. 2004; Chatzoglou et al. 2011).

It is known that businesses frequently face changes in the environment, especially in terms of changes in consumer services, technologies, and product lifecycles. In this environment of innovation and strong market competition, businesses need Information Systems which meet the needs of the business according to the

business's goals, which affects the process of business with Information Technology alignment. The development of successful Information Systems needs both understanding of system requirements and business activities. Achieving alignment from the development of Information Systems supports the organizational stakeholders to effectively meet business goals. Nevertheless, Information System developers face challenges in implementing systems that meet business goals which act in an ongoing changing environment, because businesses are misaligned. Despite the contribution of alignment methodologies, some businesses fail to align business with Information Technology due to the following challenges. First, many decisions which concern about Information Technology are driven by business executives who are not informed about Information Technology. This barrier leads to the company being misaligned. Another challenge refers to Information Technology executives who are not informed about the business goals, and often they cannot understand the needs of business decisions. Finally, business and Information Technology executives contravene and they do not trust each other, which influences their relationship and consequently the business survival (Ullah and Lai 2013).

Previous researches state that alignment between business and Information Systems strategy increases firm performance. Nevertheless, factors influencing alignment have received relatively little attention. Information Systems alignment is identified as the degree to which the mission, goals, and plans included in the business strategy are distributed and contended by the Information Systems strategy to affect firm performance. Information Systems strategy cannot be aligned to the business strategy when the business fails in formal planning, and the business strategy is not clearly identified (Chan et al. 2006).

Other factors related to the successful implementation of alignment refer to shared domain knowledge, Information Technology implementation, communication between business executives and Information Technology stakeholders, and link between business and Strategic Information Systems Planning, in order to improve the business's culture. In this view the following should be put into perspective so as to increase alignment in any business. The business strategy must be cleared by both business stakeholders and Information Technology, a strong cultural relationship between business and Information Technology needs to be established, successful communication between both business and Information Technology executives needs to be sustained, business and Information Technology strategies must be associated, Information Technology has to support the business strategy and Information Technology must be supported by business strategy, and, finally, business and Information Technology executives must trust each other (Ullah and Lai 2013). Teo and Ang (1999) add management commitment to the strategic use of Information Technology and clear or stable business mission, goals, and priorities to the previous factors. Reich and Benbasat (2000) propose a model which contains four factors that would potentially affect alignment. The first one is shared domain knowledge between business and Information Technology executives, the second refers to Information Technology implementation success, the third is about communication between business and Information Technology executives, and the last is related to connections between business and Information Technology planning processes.

The alignment between business strategy and Information Technology strategy has been highlighted as a major issue for businesses. On the other hand, alignment between business strategy and Information Technology strategy gap exists due to lack of communication, leadership, education, and participation in business strategy planning and development. Rathnam et al. (2004) investigate the factors that affect the decrease of gap in alignment. Chan and Reich (2007) conclude to the following critical success factors which affect the alignment of business and Information Technology planning in fifty stakeholders. The first major factor is the clear definition of business goals and vision. Other factors concern management commitment, confidence and knowledge about business planning, strategic use of Information Technology, and the collaboration and communication in the department of Information Technology in order to be efficient and reliable and responsive to user needs (Luftman and Brier 1999).

It has already been mentioned that the participation of the Chief Executive Officer (CEO) and other top managers is a major factor for successful alignment. This participation is significant because it contributes to the competitive use of Information Technology and the successful implementation of Information Technology strategies. The Chief Information Officer (CIO) should devote to understanding business needs, and the CEO should devote to investigating Information Technology opportunities. CIOs who participate in formulating business goals are more possible to understand business goals and to closely connect Information Technology strategies closely with organizational strategies. CEOs' participation contributes to the ability of CIOs to provide information about competitors' uses of Information Technology and to share knowledge about emerging opportunities. This collaboration aims to strengthen both types of alignment (Kearns and Lederer 2002).

When it comes to the effectiveness of the alignment, CIOs are responsible for educating business managers according to strategic implications of Information Technology investment, forwarding the strategic vision of Information Systems to the whole business, making critical strategic decisions in resource dispensation, and communicating with other stakeholders to generate new ideas for business progress and innovation (Chen et al. 2015).

There is variety of other factors which negatively influence the process of alignment. These factors concern with the limited involvement of the CEO and CIO in strategic planning, the frail relationship between business and Information Technology, the communication problems between business and Information Technology, the short-term planning between business and Information Technology, the lack of business and Information Technology capabilities, the turbulent organizational structure, the organizational culture which does not promote the use of Information Technology, the use of Information Technology not as an organizational tool, the informal business planning, and the lack of Information Technology faith (Ullah and Lai 2013). Except for factors which negatively affect the process of alignment, there are inhibitors which hamper the process. These inhibitors are referred to be the facts that Information Technology does not prioritize well or fails to meet its obligations, does not understand business objectives, fails to succeed in strategic objectives, and

does not communicate effectively the business goals and vision. Also, Information Technology management does not provide leadership in the alignment process, and managers do not support the use of Information Technology and resist. Last major factor is that Information Technology and business plans are not linked (Luftman and Brier 1999).

Managers want to know the steps which are needed so that alignment can be successful and the way to increase business performance and effectiveness through Information Technology in order to avoid previous challenges which negatively affect the process of alignment. According to Luftman and Brier (1999) the process of alignment consists of six steps which are the definition of goals and the selection of the team which will contribute to the alignment process, the understanding of the business and Information Technology linkage, the analysis and the identification of prioritized gaps, the specification of actions which will take place in the process, the choice and evaluation of success criteria, and the support of the alignment process.

33.3.2 Alignment and Firm Performance

There have been only few researchers who have actually developed alignment and those who have investigated its effect in firm performance have been few. The result for businesses which have aligned strategy and structure is that they are less defenseless to external change and internal inadequacies, and consequently they are able to perform more competitively (Bergeron et al. 2004). Researches support that alignment must have a positive combination with firm performance. Previous surveys concluded that businesses with high strategic alignment of Information Systems were performing better (Cao and Schniederjans 2004). Also, effective alignment of the Information Technology plan with the business plan can impact on competitive advantage (Chan and Reich 2007). Despite the fact that more attention is given to strategic Information Technology alignment, it cannot influence the firm performance without the simultaneous implementation of both strategic and structural alignment (Chan and Reich 2007). If the business delays according to its competitors, strategic advantage and competitive advantage can quickly become strategic and competitive need. New technologies offer new opportunities for competitive advantage and strategic advantage (Luftman et al. 1993). Researches have been implemented to demonstrate alignment between Information Systems and organizational objectives, and several alignment levels have been suggested to impact organizational outcomes which refer to performance and competitive advantage (Benbya and McKelvey 2006). The fact is that the strategic importance of Information Technology in organizations is increasing; most studies have focused on the alignment of Information Technology strategy with business strategy and examined the performance effects of the strategic alignment (Yayla and Hu 2012).

An important view of Information Technology planning is the alignment of Information Technology plans with business plans through the linkage between business and Information Technology planning processes and activities. This kind

of alignment is necessary to secure that the Information Systems processes support business goals and activities at every level to achieve business value from Information Technology and take advantage of Information Technology to achieve strategic advantage (Haki 2011).

Consequently, according to information processing theory, the most effective organizational strategies are those that identify a suitable combination between business's ability to manage both information and the amount and kind of information that is disposable or demanded. This conclusion has three meanings. Firstly, managing the environment means for businesses to use Information Technology so as to support cooperative associations, partnerships, or acquaintance with other businesses.

Secondly, the use of Information Technology increases the productiveness of internal processes to a competitive response enabling the company to ensure approach to rare resources and to operate as a modulator against changes. This would demand an information processing focus on limiting coordination costs, raising inner control, meliorating the productiveness of internal methods, limiting costs of functions, and limiting the costs of handling data. Finally, the use of Information Technology brings the business more closely to the customer by strictly learning more about his needs. Through the use of Information Technology, the business can reduce uncertainty as it is able to understand more quickly changing consumer demands and abridge response times, resulting in improving firm performance. Customers are satisfied and contribute to the increase of firm performance. It also permits the business to plan into differential products that consumers require or to supply more efficient service on existing products (Fairbank et al. 2006).

Information Technology can influence firm performance only by the alignment between the strategic, structural, and environmental elements which are special to each business. Researchers are interested in the following important questions, how can a business translate its Information Technology investments into growing firm performance? The second question concerns the way that a business meliorates its productivity and the last question refers to the way that a business grows the market share it holds.

Businesses are constantly looking out for rapid changes in the business environment, especially changes related in consumer services, technologies, and product lifecycles. Innovation and market competition has pressed businesses to improve their business strategies in a rapid way. The huge business investment in Information Technology and the speedy upgrading of business strategies have forced top management to pay more attention to Information Systems and combine Information Systems Planning at the strategic level of the business (Chatzoglou et al. 2011).

Some researches have successfully noticed the outcome of the alignment of Information Technology with organizational variables on firm performance. These dimensions concern the strategic management of Information Systems, the organizational structure, or the business strategy.

Successful strategic alignment of Information Technology with the business strategy should include elements such as business strategy, Information Technology

strategy, business infrastructure, and technological infrastructure, as it is mentioned above. Firstly, the strategic use of Information Technology is related to the Information Technology applications used to contribute to the business to gain a competitive advantage. Next, Information Technology management makes awareness of the processes of the Information Technology department such as the use of current and new technologies, the growth of especial Information Technology applications, and the rate of Information Technology use experienced by the employees. Next, the role of the Information Systems department regards the business significance of Information Systems Planning, the quality of the Information Technology alignment with business structure, the productiveness of software development, and the manipulation of communicational networks. Then, the technological infrastructure includes the Information Technology architecture and the formal procedures used to guide and manage the business's Information Technology resources. Finally, the business infrastructure concerns the internal processes of the Information Systems department such as formal structure, relationships, support groups, and capabilities.

A few papers have ended up with the significance of the alignment among business strategy, Information Technology, and firm performance. The usage of Information Technology for competitive advantage is a variable performance and it can be measured (Kearns and Lederer 2002).

Researchers have measured firm performance with variables such as sales growth and profitability (Bergeron et al. 2004; Croteau and Bergeron 2001); sales growth, profitability, and innovation (Andersen 2001), cost reduction, quality improvement, and revenue growth (Oh and Pinsonneault 2007); improvement of internal efficiency of operations, growth of customer satisfaction, growth of ROI, growth of market share of products and services, and growth of annual sales revenue (King and Teo 2000); and ROA, sales, growth, and profitability (Chatzoglou et al. 2011).

33.3.3 Alignment and SMEs

Managers in current and complex environments are expected to investigate the field of the alignment of Information Technology and business strategies more (Chan et al. 2006). Nowadays, that environmental uncertainty is higher than ever before, businesses need information and Information Systems. It is expected that businesses will thoroughly investigate Information Technology alignment within the environmental uncertainty and may be able to collect greater advantages from Information Technology. As a consequence, environmental turbulence influences the significance of Information Technology alignment, the convenience with which it is achieved, and the models required to manage it (Chan and Reich 2007).

The business functions have changed over the last years, and business environment is getting more and more complicated and troublous due to the growth of e-business, globalization, virtualization, and collaboration. To deal with the environments, businesses identify that Information Technology and Information Systems are requisite to meliorate firm performance and sustain competitive advantage by

developing productive business operations, contributing on global contacts, and contending interactions between business components and resources.

Businesses change becoming more sophisticated and integrated, which is more cost-effective, bendable, performance oriented, competitive, profitable, and sustainable to adapt to the demands of constant change by strategic use of Information Systems (Yang et al. 2013).

In particular, innovative small firms which are those which introduce new products, processes, or business models are most likely to create new markets, achieve rapid growth, and help the economy recover (Lee et al. 2015).

In Europe almost the amount of 75 % of all businesses are family ones. Family businesses incline to pay attention on the business's long-term sustainability than perceiving short-term profitability (Siakas et al. 2014). Family firms are significant, both because they make a substantial contribution to the national economy and also because of the long-term consistency they achieve, the liability they display, and the values they represent. Greece is a country which has an enormous number of SME businesses comparatively with other countries of the European Union, and most of them are family businesses (Bourletidis 2013; Vassiliadis and Vassiliadis 2014).

There are few factors which influence SMEs success and help to limit the challenge of failure and raise opportunities for success. These factors came from a survey of 143 SMEs in Thailand and include SMEs characteristic, management and know-how, products and services, customer and market, cooperation with other businesses, resources and finance, strategy, and external environment. It is observed that these factors are related with the factors which affect the alignment process (Chittithaworn et al. 2011). A major conclusion results from the fact that if SMEs are to produce new innovative products and services and meet customers' and market's needs, they require information. In order to handle these information, they need both technological and strategic resources. They have to analyze the environment and to define their business strategy and objectives which have to be aligned with those of Information Technology. This alignment will help SMEs to increase their cooperation with customers and other businesses and to enhance their competitive advantage.

This competitive advantage came from SMEs' investigation in market research, Research and Development (R&D), and innovation in order to raise their productiveness. Launching on market intelligence, they will be able to understand the needs of customers' and market's needs (Chittithaworn et al. 2011).

The current financial crisis has negatively affected a huge number of activities, and the majority of family businesses found themselves in a new complex financial environment where uncertainty prevails and the market characteristics are radically inverted. Except for difficulties in their financial aspect, their relative lack of technological, managerial, and human capabilities may limit their ability to bowl over the financial crisis.

Information handling plays a very significant role in the relationship between innovation and SMEs return. Some businesses have the gathering and the processing of the information handling as a separate part of their activity, and it seems to show up better perspectives. This information comes from all individuals who cooperate

with the business. These individuals are customers, suppliers, and competitors. Raising the frequency of information handling and managing supports businesses to behave more quickly and flexibly to new conditions and occasions caused by financial crisis (Bourletidis and Triantafyllopoulos 2014).

The handling of the information is a strategic resource which faces SMEs in the period of crisis. The degree of businesses that has been highly influenced by the financial crisis predominates the 80 %. Above all, more attention requires to be paid to SMEs and how they realize and reply to the crisis. SMEs play a major role both in Greek and European competitive financial growth and also in the world's economy because they constitute 97 % of businesses all over the world.

It seems that formal processes in SMEs which are related to strategic management and information handling expedited checking and coordination and supported managers to pay attention to strategies, structures, and processes that were likely to increase firm performance.

In unsettled environments, businesses incline to formalize processes using standardized rules and procedures which help the reduction of environmental uncertainty and to be prepared for stability. It seems that formalization supports the development of constant frameworks that accommodate communication among the individuals and sharing of new information and provides through the inflicted structures the transformation of new ideas into real plans accordingly, raising innovation. The more of a turbulent an environment may be, the higher the need for innovation is so as to continue being competitive and to survive (Giannacourou et al. 2015).

To conclude, strategy, resources, and finance are the main factors which SMEs have to deal with in order to develop and sustain technological advantage through Information Technology (Ensari and Karabay 2014). The alignment of these components will increase the profitability of the business, and it will be able to compete in the current turbulent financial environment.

33.4 Conclusions

So far academic studies have focused on the effect of strategic alignment between business strategy and Information Technology strategy or strategic planning and Information Systems Planning on firm performance and especially for SMEs. This paper contributes to the existing literature review because it summarizes the existing knowledge about the significance of alignment, factors that affect alignment, the influence of alignment on firm performance, and a framework for SMEs. There are some conclusions which concern SMEs in order to maximize competitive advantage in the current complex environment. SMEs have been influenced negatively from the financial crisis. They make efforts to survive and to increase their profitability. In this view, SMEs need information about their customers, their competitors, and their environment in order to produce new innovative products and services according to customers' needs and to increase customers' satisfaction. If customers are satisfied,

they prefer to buy the products or services of the business which satisfies their needs, and they contribute to firm's profitability. In order to handle the information they need, they require technological and strategic resources. Information Systems are a tool which helps SMEs to reduce their costs, to reduce product lifecycles, to produce products according to customer needs, and to make internal processes more effective. However, Information Technology without strategic direction does not add value to SMEs. SMEs should define and communicate their vision, mission, business strategy, and objectives in order to align them with strategy and objectives of Information Systems. Executives of SMEs should be informed about Information Technology issues in order to make better decisions for their businesses. This is difficult to be achieved when executives are not young and educated about Information Technology. Otherwise they make decisions without considering the objectives of Information Systems department, and this can be a barrier in SMEs' profitability and competitiveness because it may increase cost of new products or it may not make internal processes more effective and rapid. So a culture for innovation and supporting Information Technology is necessary so that SMEs' benefits from the process of strategic alignment could be gained.

By identifying the factors that affect the alignment process and the model which has been investigated by previous researchers (Bergeron et al. 2004; Chatzoglou et al. 2011; Henderson and Venkatraman 1999), it is proposed for SMEs to be based on the components of this model and combine the factors which affect the process of strategic alignment in order to design the process of alignment and pay attention to these components in order to maximize performance. Furthermore, it is proposed academics and SMEs test this model and the factors which affect the process of alignment in order to confirm their influence on firm performance and to highlight the components to which SMEs have to pay more attention. The result of these investigations may conclude to a new model or a formal process which will combine both the elements of the alignment process and the factors which affect the process and will be followed by SMEs in order to maximize their profitability in the current complex environment. A limitation of this paper stems from the fact that the model which has already been investigated is combined with the factors that have not been tested yet. Nevertheless, the results of an exploratory study will be summarized in an improved conceptual model for further research.

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