Strategic Information Systems Planning

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INTRODUCTION

In this day, turbulence in the businesses' environment is on the increase. Therefore, businesses are obliged to respond to that environmental uncertainty. Information Systems (IS) and Strategic Planning support this effort. IS are connected with business strategy, management skills, decision making and aims to increase competitive advantage (Zubovich et al., 2014). Researchers have focused on the process of Strategic Information Systems Planning (SISP) since 1970. The purpose of SISP is to support the goals and the business strategy, through IS. Furthermore, SISP helps businesses to innovate, create new products, reduce costs and enhance relationships with customers (Kamariotou & Kitsios, 2015, Ullah & Lai, 2013). The process of SISP contains five phases, which are strategic awareness, situation analysis, strategy conception, strategy formulation and strategy implementation planning. These phases help businesses not only to define IS strategy but also to develop IS.

Previous studies have examined the effect of these phases on SISP success. Also, other studies have concluded that there is a positive relationship between SISP and firm performance. These surveys that have discussed the relationship between SISP and firm performance have been presented only by a theoretical approach (Goldsmit, 1991, Lederer & Sethi, 1996). These surveys collected data using questionnaires in large firms. Surveys in SMEs which constitute the main component of each economy, are limited however (Newkirk et al., 2003).

Consequently, the aim of this chapter is to propose a holistic approach in order to investigate the significance of SISP process, to highlight phases that contribute to a greater extent of success and to draw conclusions concerning the successful implementation of digital strategy in firms.

The structure of this chapter is as following: after a brief introduction to this field, a theoretical framework is analyzed on the basis of the literature review about SISP phases and success in firms. Then in the next section, the findings of previous surveys are presented, whereas the final section concludes the paper.

BACKGROUND: STRATEGIC INFORMATION SYSTEMS PLANNING AND PERFORMANCE

SISP has become a significant planning activity in organizations and a major issue for IS management. Many factors have contributed to the change of the role of IS in business in recent years. These factors involve the use of IS for competitive advantage, the effusion of IS in businesses, the involvement of IS on businesses' daily operations and the increase of interorganizational systems. Due to these changes, strategic planning for the IS function is necessary so that businesses can effectively achieve their goals in this complex and dynamic environment (Pvemkumar & King, 1991, 1994).

SISP can be defined as the ability to shape the strategy of a business and tools, techniques and

methodologies were suggested to support organizations in determining potential opportunities to deploy IS with greater competitiveness (Peppard, et al., 2014). SISP is an integrated process which includes certain phases. These phases and their activities are presented as follows. The first phase is Strategic awareness. This phase includes the identification of key planning issues, planning objectives, organizing the planning team and the encouragement of top level managers. The second phase is Situation analysis. This phase involves the analysis of current business systems, current organizational systems and current IS. Also, it includes the analysis of the current external and internal business environment and the current external Information Technology (IT) environment. Next, the third phase is Strategy conception. This phase includes the determination of main IS objectives, opportunities for improvement, alternative scenarios as well as the evaluation of opportunities for improvement. Also, it includes the definition of high level IS strategies. The next phase is Strategy formulation. In this phase, businesses select the most suitable scenario from the previous alternatives scenarios, according to new business processes and new IT architectures. Then this scenario is evaluated according to its strategic and technological impact. Also, in this phase, specific new projects and priorities for new projects are identified. These projects consist of specific activities which support the implementation of the selected scenario. The last phase is Strategy implementation planning. This phase involves approaching the actions of change management and the evaluation of strategic plan (Brown, 2004, 2010, Kamariotou & Kitsios, 2017, 2016, Kitsios & Kamariotou, 2016, Maharaj & Brown, 2015, Mentzas, 1997, Mirchandani & Lederer, 2014, Newkirk & Lederer, 2006, Newkirk, et al., 2008).

Despite the fact that previous researches have shown the success of the implementation of these phases in IS' development, many factors affect negatively the success of the process. Such important critical factors are management commitment, the involvement of employees, the communication between the members of the team as well as the planning horizon. On the other hand, their advantages are the increase of products' quality and the effectiveness of IS (Brown, 2010, Cohen, 2008, Haki, 2011, Luftman & Brier, 1999, Pai, 2006, Silvius & Stoop, 2013, Teo, et al., 1997, Yang, et al., 2013, Zubovich, et al., 2014). Other factors which have an impact on SISP process are the analysis of the environment and the knowledge sharing (Maharaj & Brown, 2015, Pai, 2006, Yang & Pita, 2014, Yang, et al., 2013, Zubovich, et al., 2014). The determination of planning with a certain frame is very important due to technological changes which affect SISP process (Newkirk, et al., 2008).

King and Teo, (2000), argue that the factors which influence the process of SISP are the understanding of the objectives, management commitment and the creation of integrated plans. These factors impact on the firm performance of a business and especially on the index of Return on investment (ROI), as well as on the increase of market share and on customer's satisfaction. Also, Lederer and Sethi, (1991), concluded that the most important factors are related with systems' architecture, their cost and their implementation. Furthermore, they highlighted factors which are related to managers' involvement, the small horizon of projects, the support of financial plan for the development of IS, as well as knowledge sharing, analysis of business environment and understanding of strategic objectives. Earl, (1993), considered the linkage between business objectives and IS, the increase of competitive advantage through IT as well as the necessary resources for the development of IS as the major factors.

The success of SISP is defined as "the degree to which the objectives of SISP are achieved" (Pai, 2006). Several authors have measured the success of SISP with two dimensions: quality and effectiveness, while others have measured it with four, named: alignment, analysis, collaboration and capabilities (Newkirk & Lederer, 2006, Pai, 2006). A combination of the above dimensions proposed by Yang and Pita, (2014), who measure

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