

Strategic Information Systems Planning (SISP): An Empirical Evaluation of Adoption of Formal Approaches to SISP in Australian Organizations

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ABSTRACT

This study examines the use of formal Strategic Information Systems Planning (SISP) approaches and methodologies in Australia. The authors analyze the relationships between SISP success, SISP objectives, company size/type and SISP approaches and methodologies. The authors find that the most popular methodologies are not the most successful. Emerging methodologies, such as Fuzzy Cognitive Maps and Information Engineering, could be considered for improving the success of SISP. They also find that a combination of SISP approaches is more successful than the implementation of any one approach. This can be interpreted that the boundary lines that distinguish theoretical approaches are blurred and that SISP theory needs a new way of thinking to stay relevant for practice. In addition, many findings of significant importance to SISP practitioners, in the context of various industries, are presented.

Keywords: SISP Approach, SISP Methodology, SISP Objectives, SISP Success, Strategic Information Systems Planning (SISP)

INTRODUCTION

Despite an attempt to downplay the importance of Strategic Information Systems Planning (SISP) (Raimond, 1992; Willcocks, 1992; Carr, 2003), this activity is still justifiable and critical. SISP is ranked the third most important key issue in IT management in the last decade

(Caudle et al., 1991; Boar, 1993; Brancheau et al., 1996; Watson et al., 1997; Luftman, 2004; Maltz & DeBlois, 2005). IT/IS strategic importance has not diminished because a global trend of information availability to everyone, whenever it is needed, and anywhere (Luthans, Rubach, & Marsnik, 1995; Szántó, 2005). On critical dependency on IT/IS, organisations respond toward the pronounced need for strategic planning of IT/IS resources (Palvia & Palvia,

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2003). SISP then is needed to produce a strategic plan that addresses the future needs for IT/IS in accordance with the business objectives in formal or less formal ways (Galliers, 1987; Hackos, 1997).

Within the IT/IS landscape, theoretical research is well advanced but in many aspects still lags behind practical needs as SISP is addressed by many theorists but few practitioners. The content of the relations among SISP constructs still remains hidden because of the conceptual nature of previous SISP studies, further diminishing the impact of academic thinking on SISP practice. Consequently, a question about theoretical relevance as a source of practical advice to SISP practitioners can be raised.

SISP is a dynamic, evolving activity and revisiting the usefulness of propositions and methods for practice should be a continuous process (Galliers, 1987). These studies (Galliers, 1987; Wilson, 1989; Earl, 1990; Flynn & Goleniewska, 1993) are helping practitioners learn from experience in other organisations and research can channel their efforts to areas that need improvements.

How deep is the gap between current SISP practice and theory? Can analysis of current relationships between different approaches and SISP success shed light on the reason why SISP is still one of the major concerns for IT executives? Should similar types of organisations exercise the same approach to SISP? Do organisations' objectives and the size have an influence on the selection of a SISP approach?

This study focuses on empirical analysis of diffusion and adoption of the five SISP approaches, Business-Led, Method-Driven, Administrative, Technological, and Organizational, defined by Earl (1993) as well as their current relationship to SISP objectives, company size and SISP success. All relationships are assessed on a variable level. Also, this study tries to help SISP practitioners by finding relationships between used methodologies and SISP success in the context of various industries.

The rest of paper proceeds as follows. The next section is the literature overview of the most used SISP approaches and methodologies. The

aim is to present some key stands from the SISP literature to be able to form a context within which the survey results may be interpreted. The research methodology and data analysis are presented next. Finally, a summary of the survey results, limitations and possibilities for further research are presented.

SISP METHODOLOGIES

One of the major issues on the IS planning agenda is choosing the right methodology (Lederer & Sethi, 1992; Ang et al., 1995) to enable the IS team to plan and track its SISP activities. A SISP methodology is comprised of one or more techniques where each technique is defined by a set of practices, procedures, and rules. Generally, the use of more than one methodology is preferred.

The main methodology selection criteria therefore, would be resource availability and methodology/technique complexity. Any of the packaged methodologies will require customization for a client's specific requirements. Selection of SISP methodologies is not only influenced by the characteristics of the methodologies but by many other factors, such as internal policy, historical reasons, a preferred supplier, familiarity, etc. (Betts, 1999). The use of automated tools also helps planners to conduct SISP in a structured and more efficient way. Examples of such tools can be found in Rouse and Howard (1993).

A number of Australian organizations have used a few planning methodologies, and still were in the process of choosing the right methodology (Cerpa & Verner, 1998). Considering an organization's culture, size and management style, the best fit for an organization could be the CSF method (Cerpa & Verner, 1998). The levels of IS systems infusion and diffusion (Sullivan, 1985) dictate which methodology will be more appropriate to use. Systems infusion is described as the degree of IT influence in terms of importance, impact, or significance; and systems diffusion as the degree to which

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