



Chapter XIII

Testing and Extending Theory in Strategic Information Systems Planning Through Literature Analysis

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ABSTRACT

Strategic information systems planning (SISP) has been and continues to be a key concern to information systems managers, and much research effort has been devoted to studying it. SISP has been theorized in terms of an input-process-output model, with well-defined categories and a set of hypotheses to be tested. Based on this theoretical framework, a comprehensive analysis of academic literature published since 1991 is undertaken. The analysis reveals the extent to which the various categories and hypotheses within this framework have been researched, as well as identifying additional hypotheses that are suggested from the literature.

INTRODUCTION

Information systems planning (ISP) has been defined as the process of identifying “prioritised information systems (IS) that are efficient, effective and/or strategic in nature together with the necessary resources (human, technical and financial), management of change considerations, control procedures and organisational structure needed to implement these” (Baker, 1995, p. 62). The focus of this research is on the strategic to tactical level of ISP, commonly referred to as strategic ISP (SISP) (O’Connor, 1993). This differs from lower levels of planning in that, in terms of scope, it is organizational, in perspective that of top management, in terms of level of abstraction, more conceptual than physical, and in time frame, medium to long (Segars, Grover & Teng, 1998).

SISP has long been a key issue for information systems managers (Luftman & McLean, 2004; Watson et al., 1997). This interest in SISP stems from the recognition that IS are a strategic resource for organizations, capable of providing strategic advantage, and improving overall business performance (Pant & Hsu, 1999). As such, they need to be managed strategically, planning being key to this endeavor. In the modern era, described variously as the information age or knowledge age, IS are furthermore ubiquitous in many organizations and play an increasingly important strategic role. E-business, for example, is the phrase coined to denote the use of Internet technologies to support both internal operations and processes within a firm, as well as those between firms (Pant & Ravichandran, 2001). These types of IS offer many potential benefits if adequately planned for and implemented (Pant & Ravichandran, 2001). In addition, IS continue to evolve and grow in complexity as technology, the competitive environment, and business strategies change (Benamati & Lederer, 2001). SISP helps organizations make sense of this complexity, as by adopting this practice, firms are able to analyze the environment, keep track of new developments, monitor how IT is being used by competitors, plan for adequate IT infrastructure, and establish how best IS can be used to both support and impact business strategies and objectives (Salmela & Spil, 2002; Segars et al., 1998). The efficacy of SISP has furthermore been demonstrated in several studies (Cohen, 2002; Premkumar & King, 1994).

The purpose of this chapter is to conduct an extensive analysis of academic research in order to test a theory of SISP proposed by Lederer and Salmela (1996) and, in so doing, to identify where further research is required. Extensions to theory may also be suggested from the analysis. In the following section, justification for using this theory as a basis will be provided by examining several other ways in which SISP has been studied and the limitations of these alternatives. The process by which data was collected will be described before the data is analyzed according to the theoretical framework. Results of this analysis are reported and discussed before implications for future research are outlined and the chapter concluded.

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