Chapter 9
Classification and Comparison of Strategic Information Systems Planning Methodologies: A Conceptual Framework

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ABSTRACT

Strategic planning for information systems remains as one of the top concerns and continues to be a critical issue for many chief information officers and their organisations. Also, a comprehensive review of the recent information systems planning literature reveals that selecting a proper methodology used in developing an information systems plan is one of the success factors related to the success of the IS planning process. Although this individual success factor should have attracted more research and discussions, there have not been enough attempts to create a framework to compare and classify strategic information systems planning methodologies to select a proper method for a specific organisation with its unique requirements, hence a gap in literature. Therefore, the purpose of this paper is primarily to bridge this gap by proposing a conceptual framework to classify strategic information systems planning methodologies to choose the suitable methodology(ies) according to specific requirements of an organisation.

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1. INTRODUCTION

Strategic information systems planning (SISP) is essential for organisations to succeed (Newkirk, Lederer, & Srinivasan, 2003). It is a continuous exercise that enables organisations to develop priorities for information system (IS) development. IS strategies are defined for their alignment with business objectives or their capacity to create significant impact on the organisation's competitive positioning.

Therefore, improving SISP practice as one of the most critical issues facing IS executives has been critically studied through the last two decades and continues to be a critical issue and remains a top concern of many organisations (Doherty, Marples, & Suhaimi, 1999; Moynihan, 1990; Peppard & Ward, 2004; J. Ward & Peppard, 2002).

A comprehensive review of the IS planning literature reveals that the following factors are related to the success of the IS planning process (Doherty et al., 1999):

1. The need to align corporate objectives and IS strategy (Henderson & Venkatraman, 1993);
2. The underlying motivation for the initialisation of the planning process (Banker, Kauffman, & Morey, 1990);
3. The assessment model of Business-IT alignment of the organisation (Luftman, 2004);
4. The selection of a methodology used in developing the IS plan (Bergeon, 1991; A. Lederer & Sethi, 1988; A. Lederer, Sethi, V., 1998);
5. The framework used for setting IT investment priorities (Burch, 1990);
6. The measurement of effectiveness used for the IS department (Clark Jr, 1992);
7. Preparation of an implementation plan to meet SISP objectives (A. Lederer & Sethi, 1996).

Although the fourth success factor should have attracted more research and discussions, there have been only a few attempts to create a framework to compare and classify SISP methodologies. The proliferation of methods and the variations in satisfaction indicate a need to provide guidance to assess the appropriateness of different approaches and the applicability of using several approaches in practice.

Some studies also developed SISP maturity models in different stages of maturity and created models to assess such maturity in SISP practice in organisations (Pita, Cheong and Corbitt, 2011a; 2011b). High maturity in SISP could also contribute to the success of SISP practice.

Indeed, there is little guidance available in the literature regarding what relative strengths and weaknesses of existing SISP approaches are (Rogerson & Fidler, 1994). Also many techniques have been advocated for use within the SISP process (J Ward, Griffiths, & Whitmore, 2002), including the definition and the analysis of the critical success factors (CSFs), SWOT analysis (strengths, weaknesses, opportunities and threats) and value-chain analysis (VCA).

Some organisations, which specialise in information technologies and their applications, have coupled together different methodologies resulting in a complete SISP methodology such as the work by Min et al. (1999) proposing an integrated approach toward strategic information systems planning (Min, Suh, & Kim, 1999).

Several studies also have focused on SISP approaches e.g. by following Mintsberg's models in his book: the rise and fall of strategic planning (Mintzberg, 2000), the stage of growth analysis which relates to Nolan's work (Gibson & Nolan, 1974) or by invoking the Organisation's Theory in order to obtain an organisational fit for IS (Burn, 1991). Through the comprehensive studies and practices of SISP, many methodologies are being applied in order to perform SISP processes, there-