Chapter 13
A Maturity Model of Strategic Information Systems Planning (SISP): A Comprehensive Conceptualization

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ABSTRACT

Strategic Information Systems Planning (SISP) maturity model is conceptualized as a five-stage maturity model. To identify the maturity stage of SISP, a model for assessment of SISP is developed. The development of these models is based on the 'Integral Engineering' approach and a unique implementation of the Analytical Network Process theory (ANP). The SISP assessment model is structured as a multi-order system. High level constructs are presented in this paper. A new approach to SISP offers improving our understanding of the concept of SISP, and a means of structured evaluation and reformulation of SISP. The SISP assessment model can be used as an early warning diagnostic tool to draw attention to particular aspects of the SISP that need improvement or to justify the undertaking of SISP.

INTRODUCTION

Large investments in an ever-developing IT technology inevitably require planning. As IS/IT can change the way business operates, SISP continues to be a critical issue in a vast number of organisations. SISP is seen as 'the process of identifying a portfolio of computer-based applications to be implemented, which is both highly aligned with corporate strategy and has the ability to create an advantage over competitors' (Doherty, Marples, & Suhaimi, 1999; Lofgren, 2002). Information is an essential asset, but very often unutilised. Thus, the need for SISP is of paramount importance

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to any organization (Palvia & Palvia, 2003) as a number of failures with IT investments and overlooked opportunities (Wilson, 1989; Lederer & Sethi, 1996; Lederer & Salmela, 1996; Nash, 2000) have been reported as a result of lack of SISP. We found that developing/improving an IS Strategic Plan is overall ranked as the third most important key issue in IT management (Watson et al., 1997; Maltz & DeBlois, 2005).

There are numerous empirical and prescriptive SISP studies which address questions and dilemmas to help industry. Still, given the increasing proliferation of IT throughout the economy, derived benefits from IT investments are not adequate. The literature is unanimous in claiming that most industrial surveys show considerable dissatisfaction with SISP (Lederer & Sethi, 1996; Nash, 2000; Ward & Peppard, 2002). Two important aspects of SISP have been under-emphasized: the planning process and the planning evolution (Grover & Segars, 2005). There is a call within the SISP literature for improving its methodology, as well as the measurement of the variables involved (Watson et al., 1997; Reich & Benbasat, 2003; Orlikowski & Iacono, 2001; McBride, 2000).

The SISP literature is surprisingly sparse when it comes to describing what constitutes a superior SISP. This normative question is generally avoided and the focus is on plan-making methods and processes. Although the implications of not having adequate SISP emerges from these studies, it is still evident lack of understanding what exactly requirements on SISP should be in contrast to the requirements on IT function in departments. SISP is a prime component of the IS/IT departmental function and should be studied in organisational context but the literature does not include any research that provides a comprehensive framework for SISP process alone. The literature is concern with the planning evolution, plan implementation (Galliers & Leidner, 2003) but not with the plan itself. Two important aspects of SISP are under-emphasized: the planning process (how planning is accomplished) and planning evolution (Grover & Segars, 2005). With reference to the plan itself, the single dimension of the planning content is explored in the extant literature with emphasis on the methods and alignment between businesses and IS strategies.

This research aims to pave the way for the adoption of the novel approach to SISP as well as to develop more comprehensive taxonomy of SISP maturity in organisation that adopts and reorganise the different empirical and theoretical facts previously identified. The proposed model is seen as a 'dynamic framework' which investigates the organisational realities involved and will need regular updates according to IT/IS trends. Establishment of a model that reflects the needs of general IT professional population is a way of helping industry to position themselves in terms of maturity of strategic IS planning, which in turn can assist in setting new objectives, recognition of key activities which need improvement, or it can help to anticipate the next stage and move sooner to more mature position, or even skip an earlier stage altogether if found the benefits of doing that.

The aim of this paper is to present research undertaken to determine the important criteria that led to the definition of a five-stage SISP maturity model. As boundaries between organizations become increasingly fuzzy and the scope of our professions crosses the borders and boundaries, the objective was to integrate the best of the different approaches (and complement each other's weaknesses) and to transfer analogies from natural and new sciences into theory which enables exploration of new ways of modelling to address the ever increasing demand on SISP effectiveness.

Understanding a complexity of SISP factors interactions, we searched for a theory which provides a new way of thinking and enable us to deal with complex issues by simplifying it in natural and structured way. We explored control and systems engineering, soft system dynamics, and organisational cybernetics. As result, this research offers an Integral Engineering approach to SISP that integrates the above mentioned theories.

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