Evaluating Information Strategic Planning: An Evaluation System and Its Application

CHOON SEONG LEEM leem@yonsei.ac.kr
Department of Computer and Industrial Systems Engineering, Yonsei University, Korea

BUMYONG OH ciphert@iis.yonsei.ac.kr
Department of Computer and Industrial Systems Engineering, Yonsei University, Korea

Received July 15, 2000; Accepted February 1, 2001

Abstract. Information technology (IT) plays an obviously important role in gaining opportunities and taking the competitiveness advantages, and information strategy planning (ISP) becomes the major concern for the effective implementation of information system (IS) among researchers and practitioners. Most companies have difficulties in developing ISP due to its complexity and diversity. Thus, numerous studies have been done on ISP and the methodology for its effective devising process. However, traditional methodologies do not reflect the rapid change of IT markets and business environments. We identify the critical factor for ISP methodology, and develop the new methodology, so-called information strategy planning methodology (ISPM). Also, based on ISPM an evaluation system of ISP is proposed to enhance the quality and practicality of ISP. The evaluation system is composed of two domains, evaluation of ISP procedure and evaluation of ISP supporting systems. The evaluation system is applied to seventeen major Korean companies’ ISPs to reveal its value.

Keywords: ISP (information strategic planning), evaluation, ISPM (information strategic planning methodology), case study

1. Introduction

As a company faces enormous challenges, information technology (IT) plays an important role in gaining opportunities and taking competitiveness advantages. In this situation, every company needs the structured plan to manage and implement Information strategic planning (ISP) which has gained considerable interests among researchers and practitioners in recent years because of a large amount of IT investments and corresponding expectations. McFarlan suggested that IS is more effective in companies with well-prepared planning [22]. However, failure to conduct ISP effectively can cause duplicated efforts, incompatible systems, and wasted resources. Thus, ISP has become a major concern of IS management among companies sought to manage IS/IT investments more efficiently.

In order to develop and implement ISP effectively, companies conventionally apply one of several methodologies, since companies applying a methodology are known to get better results [5]. As IT continues to change, grow and become more complex, the ISP process becomes difficult to handle. An investigation showed that only 24% of planned applications were actually developed [13]. Furthermore, results of IT projects could be
inconsistent with outputs of ISP. Consequently, the needs of ISP is in serious doubt. Both researchers and practitioners agree to develop more applicable ISP [11]. We propose an evaluation system of ISP, which has goals to minimize modification and reformation of the ISP during implementation, and to make IT projects more effective and efficient.

The paper is organized as follows: In Section 2, previous research related to ISP are summarized. In Section 3, problems of traditional ISP methodologies are investigated and the new methodology for ISP, ISPM introduced. In Section 4, the evaluation system for ISP is described. A case application study is explained in Section 5, and finally Section 6 concludes this work with suggestion of future research.

2. Previous Researches

2.1. Researches Related to ISP Concept and Objectives

The role and functions of IS in organization have been dramatically changed in recent years. Most of all, IS has been the critical value creator nowadays, not just business supporter. There have been numerous researches on IS planning and ISP.

In 1970, Zani defined ISP as a top-down plan concentrating on the alignment business strategy with information system plan, which is considered as the foundation of ISP research [35]. Afterwards there are various research and corresponding definitions on ISP. King defined ISP as all planning activities that are directed towards identifying opportunities for using IT to support the organization’s strategic business plans and to maintain an effective and efficient IS function [28]. Lederer and Sethi defined ISP as the process of identifying a portfolio of computer-based application that will assist an organization in executing its business plans and realizing its business goals [15]. Baker defined ISP as the identification of prioritized IS that are efficient, effective and/or strategic in nature together with the necessary resources (human, technical, financial), management of change considerations, control procedures and organizational structure needed to implement IS [3]. However, many definitions confine ISP to a kind of plan for the IS portfolio, while the scope of ISP needs to expand as the role of IS/IT in the twenty-first century expands. In this paper, ISP is defined as follows. ISP is all planning activities to identify strategic information requirements and business strategies related to IS/IT, and to support IS development, business transformation, and education [19].

Typical objectives of ISP are summarized below:

- Aligning investments in IS with business goals.
- Directing the efficient and effective management of IS function and IS resource.
- Identifying information requirements and priorities of IS.
- Deriving the top executive’s participation and supporting to develop IT.