Analysis of Success Factors of Introducing SAP System for ERP Implementation in Small and Midsize Enterprises in Taiwan

Hsin-Ju Wei, Information Technology Total Services Corp., Taiwan
Chia-Liang Wei, Allis Electric Co. Ltd., Taiwan

ABSTRACT

Enterprise Resource Planning (ERP) has become the core of successful information management and is also the foundation of corporate information systems for treating with everything related to corporate processes. The ERP implementation has been considered a complicated process because introducing process is involved with different potential conditions and factors so that they may affect the ultimate performance of ERP systems. The aim of this study is to analyze success factors of introducing SAP system for ERP implementation in small and midsized firms. The authors first found out past critical factors affecting the ERP implementation by means of literature review in order to understand results of past studies. Next, the authors widely collected the critical success factors from previous studies and sifted out representative factors to make up a questionnaire. Through the pilot study and questionnaire revision, the authors identified the content of the questionnaire and started interviewing job. When interviewing activities were finished, they began to study and analyze the data. Survey results indicate that three of the most important factors affecting ERP implementation are “top management support and commitment”, “project manager’s competence” and “communication and coordination effectiveness”.

Keywords: Communication, Corporate Information Systems, ERP, Information Management, SAP

INTRODUCTION

In the early era, information systems were simply used to manage production planning and raw material in the factory. With diversity of products in enterprises, they needed powerful information systems to manage them and compete in the complex market in order to survive. An integrated information system, Enterprise Resource Planning (ERP), was gradually developed and extended many functions, such as supply chain management, customer relationship management and warehouse function. With the competition of globalization, both e-business and Internet function were also increased to
ERP systems. This makes ERP become a function-oriented and modular information system.

The ERP implementation has been considered a complicated process because introducing process is involved with different potential conditions and factors so that they may affect the ultimate performance of ERP systems (Soja, 2006). Besides, ERP systems own the characteristics of real time and integration. By integrating the work process of different departments, organizations can establish standardization of processes so that different database can be mutually used in the same information system in time. In the past decade, ERP was usually introduced by large-scale enterprises due to the business requirement and implementation costs. In recent years, more and more small and midsize enterprises express the need for introducing ERP systems in order to keep competitiveness in their industry. Moreover, they also expect to realize any potential crucial factors in the ERP implementation. However, success factors usually involve local culture, business environment and organizational itself. Therefore, in the report, we will study the success factors affecting ERP implementation in small and medsize enterprises (SMEs) and the result will help enterprises to create positive conditions and avoid negative effects.

**Aim and Objectives**

The aim of this study is to analyze success factors of introducing SAP system for ERP implementation in small and midsize firms. To achieve this aim, it is necessary to fulfil the following objectives:

- To understand what factors are considered determinants for the success of implementation before ERP systems are introduced into SMEs.
- To understand how those determinant factors impact on an ERP implementation when ERP systems have introduced into SMEs.
- To understand what factors are valued by enterprises and consultants in the implementing period when ERP systems are introduced into SMEs.

**Contributions**

The contributions of this report include: (1) This report investigates the success factors of ERP implementation and the result can provide companies intending to introduce ERP and consults with implementing reference. (2) The result can help organizations to understand the importance of implementing factors in different period and to advance the successful implementation.

**LITERATURE REVIEW**

**Introduction to ERP**

Enterprise Resource Planning (ERP) system has become the core of successful information management and is also the foundation of corporate information systems for treating with everything related to corporate processes (Bylinsky, 1999). An original concept of ERP was introduced by Garner Group, an IT research and advising company, in 1990 and the company stated that the next generation of manufacturing business systems and manufacturing resource planning software (Stoilov & Stoilova, 2008). They will be a set of integrated information system of operations and function management in an enterprise for dealing with corporate daily routine and the system will satisfy all commercial requirements of all the departments in a company. Through the system, enterprises can promptly respond to client’s needs and make whole enterprise reach the optimum. American Production and Inventory Control Society (APICS) in 1995 defined ERP system as “An accounting oriented information system for identifying and planning the enterprise wide resources needed to take, make, ship and account for customer orders. An ERP system differs from the typical MRPII system in technical requirements such as graphical user interface, relational database, and computer aided software engineering tools in development, client/server architecture, and open-system portability.” (Geng, 2004, p. 556).

ERP is introduced to enterprises to resolve different corporate problems, especially in a large enterprise and offer an integrated...
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