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ABSTRACT

Use of Enterprise Resource Planning (ERP) systems has been the mainstay of large enterprises since 1990s. Only recently has there been significant interest in the use of ERP in small and medium sized businesses (SMBs). Since then scholars have been studying the applicability of research results of successful implementation of ERPs in large enterprises to implementation in SMBs. In this research, the authors study the available research to discern the various ERP systems and Critical Success Factors (CSF) of ERP implementations, and delve into the real life experiences of small and midsize businesses (SMBs) that have installed Microsoft Dynamics Navision (NAV). Except for the CSF “management of risk” being found not as important almost all SMBs in the study found all CSFs found important by large businesses also important and indicated that CSF “user training” the most important.

Keywords: Critical Success Factors, Critical Success Factors for ERP success, ERP Implementation in SMBs, Information Systems

INTRODUCTION

Use of Enterprise Resource Planning (ERP) systems has been the mainstay of large enterprises since 1990’s. Only recently has there been significant interest in the use of ERP in small and medium sized businesses. Since then scholars have been studying the applicability of research results of successful implementation of ERPs in large enterprises to implementation in SMBs.

In the paper, we study the available research to discern the various ERP systems, the total cost of ownership, return on investments and the critical success factors (CSF) of ERP implementations and delve into the real life experiences...
of small and midsize businesses (SMBs) that have installed Microsoft Dynamics Navision (NAV) to analyze the inputs and outcomes of their implementations. (SMBs are defined as companies with fewer than 500 employees and less than $1 billion in revenues.)

Why Study NAV Implementation?

NAV is an Enterprise Resource Planning system that has been specifically designed for SMBs and has been enthusiastically embraced by SMBs globally, and particularly in Asia. With over 50,000 small and midsize NAV customers in over 50 countries, Microsoft has made incredible headway since its acquisition of Navision a less a decade ago. According to Kang, et al (2008) even the Korean government has been encouraging its small and midsize businesses to implement ERP systems and has implemented a task-force and budgeted financial support for up to 30,000 ERP systems. In China, state-owned companies started adopting ERP systems starting in the early 1980s (Zhang, 2003). They report that by 2003, nearly 1,000 companies had implemented one type of ERP system or other and that by then, SAP had a total Chinese market share of 28.7% and Oracle 20.7%.

In this study, we reviewed the critical success factors (CSFs) of ERP implementations in general, and the actual experiences of NAV users in particular, spanning the installation and use of the NAV system. We surveyed and interviewed two companies in the US who had implemented NAV (versions 3.6 and 4.0) and surveyed NAV users from India, where large number of businesses are adopting NAV.

In our exploratory research, we were interested in finding out if these businesses were aware of the documented CSFs before they plunged headlong into the implementations? How important was each of these factors?

As mentioned above, two local companies were very helpful and cooperative in this research. They demonstrated how the application works for them and spoke at length about their personal experiences. The rest of the NAV user companies from India conveyed their views through survey responses.

LITERATURE REVIEW

ERP Defined

The very foundation of Information Technology (IT) is information processing and dissemination. However, dissemination of accurate and timely information has been a goal that has stayed just a step ahead for many organizations. Organizations are constantly striving to refine and optimize processes, improve efficiencies and reduce costs. Although there was a need for one enterprise-wide system that would receive and process all data on a real-time basis, store it in a central database and serve it to all who need it, the thought of such a system that would integrate the numerous existing stand-alone systems with their own quirks, in a given enterprise, was always daunting. Five former employees of IBM took notice of this need, purchased a financial accounting package in 1972 and christened the company “Systeme, Anwendung, Produkte in der Datenverarbeitung” or “Systems Application Products for Data Processing” (SAP) (Hagiu, 2006; Brady, 2001). The rest appears to be Enterprise Resource Planning history. (McGaughey & Gunasekaran, 2007)

Originally these applications started mainly as materials requirement planning (MRP) systems to reduce or eliminate inventory build-up. With evolution, ERP has become a general term for integrated, enterprise-wide standard information system, created as a multi-module application software package designed to support multiple business functions such as manufacturing, accounts receivable/payable, general ledger, purchasing, warehousing, transportation, sales and supplies purchasing, customer service and human resources. It is a standardized, packaged software with a central relational database which can interface with a
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