

## Chapter 4.20

# Critical Success Factors (CSFs) for Enterprise Resource Planning (ERP) Solution Implementation in SMEs: What Does Matter for Business Integration

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### ABSTRACT

Enterprise resource planning (ERP) solution implementation is a complex process, that requires substantial resources and efforts, and yet the results are very uncertain. The ERP hype has already reached SMEs, so the authors have examined the strategies, methods and critical success factors from SMEs point of view. The results of our survey in SMEs in Slovenia have shown that SMEs have to pay attention to different critical success factors in different phases of

the implementation process. Moreover, there are differences in implementation process as opposed to large companies. Case studies of two SMEs have shown similar results. Recommendations for future SME implementations and comments of our findings can be found in conclusion.

### INTRODUCTION

Enterprise resource planning (ERP) solutions support business processes on operative level in organizations. ERP solution typically consist of

(Wallace & Kremzar, 2001) an enterprise-wide set of management tools that balance demand and supply; contain the ability to link customers and suppliers into a complete supply chain; employ proven business processes for decision-making; provide high degrees of cross-functional integration among sales, marketing, manufacturing, operations, logistics, purchasing, finance, new product development and human resources; and enable people to run their business with high levels of customer service and productivity, and simultaneously lower costs and inventories; and provide the foundation for effective e-commerce. We can say that ERP systems consist of multi-functional standards, multi-languages, multi-legislative software modules and offer process integration across an entire organisation.

An ERP system can improve business operations flow in organization. ERP solutions are designed by principles of best practices, which means, that ERP vendors search for the best organizational business models in a branch and then incorporate that business model in their package. ERP systems require an organization's core business processes to be reengineered in line with those implicit in the software (Davenport, 1999).

Over the past few years, critical success factors (CSF) of ERP implementation have been well studied (Estaves & Pastor, 2001) in large companies, but very little attention has been paid to CSFs of ERP implementation in SMEs. Although they all have the same goal, that is to improve some aspect of the organization, e.g. strategic, organizational, business, management, operational, or IT-infrastructure (Hedman & Borell, 2002), experience show that different CSFs have to be considered when implementing ERP system in large or in SME organization. To give a contribution to the whole matter, we intend to explore the implementation process of ERP systems in SMEs with intent to compile recommendations.

In the first part of the chapter ERP implementation strategies, methods, and critical success factors from the SME viewpoint will be discussed. In

the second part a field research (mainly findings and not scientific details) conducted in Slovenia on the sample of organizations (mainly SMEs) will be presented which have implemented Microsoft Navision solution (Microsoft Dynamics NAV or prior version of Navision solutions) and SAP solutions (My SAP ERP or prior version of solutions). CSFs, their importance, differences between Navision and SAP projects and how CSFs influence each other have been researched. In the third part case studies of two Slovenian SMEs will be analysed which have successfully implemented Navision and which have redesigned and integrated their processes. On the basis of the field research and case studies recommendations for SMEs will be presented.

## **ERP IMPLEMENTATION (STRATEGIES, METHODS AND CRITICAL SUCCESS FACTORS FROM THE SME VIEWPOINT)**

### **ERP Implementation Strategies and Methods**

A review of past research in the area of ERP implementation has revealed that there are different approaches and strategies for ERP implementation. Organizations have to consider different strategies early in the project, because this decision influences all aspects of ERP implementation projects and can ultimately lead to either success or failure.

Shields (2001) for example talks about three stages of ERP project implementation. The first stage consists of pre-project activities including initial commitment. The second stage deals with specific project implementation activities: start, manage, analyze, configure, test, change, support, prepare and go-life. The third stage is focused on post-project activities, which are as important as the first two phases, since we have to perform various activities for further improvement of the

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