Chapter 6.10
SMEs and FOS–ERP Systems:
Risks and Opportunities

Constantinos J. Stefanou
Alexander Technological Educational Institute of Thessaloniki, Greece

ABSTRACT

Free/Open Source Enterprise Resource Planning (FOS-ERP) software is an emerging phenomenon having the potential to revolutionize the ERP market worldwide. This chapter focuses on the FOS-ERP market for Small and Medium-sized Enterprises (SMEs) and aims at informing managers, scholars, students and researchers of the opportunities and the related risks for SMEs wishing to adopt and implement a FOS-ERP solution. It is widely accepted that SMEs, which have limited capital and other resources, are among the organizations to be benefited by the existence of FOS-ERP by acquiring a system similar to that used by large enterprises. At the same time there are certain risks in adopting a FOS-ERP solution such as security issues and hidden costs. Guidelines for SMEs to eliminate these risks are provided. In order to define the backdrop of FOS-ERP systems, Web 2.0, cloud computing and Open Source Software (OSS) are also discussed.

INTRODUCTION

Free/Open Source (FOS) software in general and Free/Open Source ERP systems (FOR/ERPS) in particular are gaining interest in providing an alternative solution to proprietary integrated enterprise software (De Carvalho, 2006). Re-

cently, open source has become a part of the IT infrastructure of organizations (Madsen, 2009). However, FOS-ERP software is still viewed with much skepticism by the majority of enterprises worldwide despite reduced IT budgets due to economic recession (Jutras, 2009). It is also true that academic research on FOS-ERP is rather limited and deficient (De Carvalho, 2009) a fact

that significantly contributes to the skepticism and the blur surrounding the FOS-ERP phenomenon.

Although at first sight it seems that all enterprises are to be benefited by the existence of FOS-ERPS, it is argued in this chapter that FOS-ERPS is not a suitable solution for all enterprises. Hidden costs and costs that incur in the long run need to be taken into consideration regarding the adoption of FOS-ERPS in relation to the business and IT strategy planning. Users' information requirements have to be accommodated by software which purpose is to be as simple to be implemented as possible but this is not always the case with FOS-ERP. The objective of the chapter is to identify the opportunities available for SMEs adopting a FOS-ERP solution as well as the risks associated with this decision. The chapter aims at informing scholars, students and researchers having an interest in this emerging area of business software. In a practical level, it will provide managers with information and knowledge required in making the right decisions regarding the acquisition of FOS-ERP software.

The chapter is organized as follows: Next section discusses cloud computing and Open Source Software (OSS) in order to define the backdrop of FOS-ERP systems. The section that follows provides a literature review on FOS-ERP and the subsequent one presents the opportunities and risks for SMEs regarding the adoption and implementation of FOS-ERP systems. The final two sections provide suggestions for future research related to adoption of FOS-ERP systems by SMEs and final conclusions.

CLOUD COMPUTING AND OPEN SOURCE SOFTWARE

Cloud computing, the technological platform that allows users, organizations or individuals, to access and use computer resources via the internet, has recently emerged as one of the most promising and revolutionizing approaches of computing. It is also becoming a significant market trend in the field of Information and Communication Technology (ICT). According to WinterGreen Research (2009), cloud computing market comprised of search engines, communications technology, and application development, is expected to reach $160.2 billion by 2015 compared to $36 billion in 2008.

Web 2.0 and Open Source are seen as the perfect background for cloud computing (Sharif, 2009). It is apparent that the undeniable success of Web 2.0 social networking applications has certainly facilitated the promotion of the idea of collaborative software. It is also a driver for the acceptance of the notion that the internet can be a respected, secure transportation platform, even for critical business applications such as the integrated enterprise systems on which all or most of the enterprises' core functions depend upon. As far as ERP is concerned, according to Wu and Lao (2009), Web 2.0 may be used to reduce the cost, improve the quality and lower the risk of ERP implementations. Web 2.0 can provide, for example, a repository system of knowledge and experiences that supports ERP application implementations. The authors notice that higher-quality ERP implementations at reduced costs with lower risks can be achieved through the collective power of a large group of people. This is not achieved, for example, in the case of traditional collaborative software development where developers work on a given project with a common goal; instead, Web 2.0 ERP implementation synthesizes on the various experiences of collaborators who work in diverse situations and try to solve different problems or model unique business processes. This formulates a new model of ERP implementation, taking advantage of emerging Web 2.0 technologies such as wiki and social tagging systems which facilitate knowledge classification and enrichment; collaborative documentation and knowledge databases can be stored in the cloud to facilitate and enlighten future ERP projects.

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