Chapter 6.10

SMEs and FOS–ERP Systems: Risks and Opportunities

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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). Recently, 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 enter-
prises 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 busi-
ness and IT strategy planning. Users’ informa-
tion 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 opportuni-
ties 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 ac-
cess 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 Technol-
ogy (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 in-
tegrated 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 imple-
mation. 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 collabora-
tive 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 imple-
mation, 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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