Chapter 78
Free and Open Source ERP:
Distinction, Direction, Co-Existence, and Potentials

Torben Tambo
Aarhus University, Denmark

Christian Koch
Aarhus University, Denmark

ABSTRACT

With the proliferation of commercial Packaged ERP (P-ERP) systems in today's enterprises, many reasons exist to look for alternatives in the quest for innovation, business development, cost, agility and dependency. P-ERP provides a solid and proven business support, an ecosystem of consultancies and integrators, senior management having gained confidence over the last 20 years, and commercially based support and development. This leaves companies with still more expensive P-ERP costs, still less flexibility, a still harder push to lose possibilities for differentiation, still more homogenised business processes, and absence of flexibility to change suppliers and systems. FOS-ERP offers an answer to most of these questions, but is facing issues in market penetration. In this chapter, barriers of FOS-ERP are reviewed; proposals are made on how to manage barriers. An approach managing co-existence of P-ERP and FOS-ERP is suggested. Concluding, FOS-ERP is seen as a strong option for enterprises in the future, but a clear understanding and distinction must be the offset, barriers needs to be managed, and optimal co-existence will in most cases be the realistic scenario.

INTRODUCTION

In a book on Free and Open Source Enterprise Resource Planning Systems (FOS-ERP), we believe it is beneficial to look at the actual meaning and business account of FOS-ERP particularly in contrast to Standard or Packaged ERP Systems (P-ERP) (Pollock & Williams 2009). Traditionally, Open Source Software (OSS) has been viewed as something positive; the group of innovative fiery souls sitting in dark attics and making global software systems in a democratic spirit. Fitzgerald (2006) describes the transformation to a more professionalised Open Source system

called OSS 2.0. The professionalised FOS-ERP has a convergence towards a classical view of P-ERP as something static. Sen (2007) points out the risk that open source projects are not sufficiently oriented towards user requirements. Our observation is based on viewing P-ERP as dynamically redefining itself (Koch 2007).

Traditionally, discussions on ERP have been unitary: Do you have an enterprise-wide ERP or not; and if you do, it is probably one large whole with little flexibility. In many cases, ERP is not monoliths of business information processing; various software packages and systems fill out specialised roles probably using the general ERP as a common repository, a transaction system and for master data management (O'Brien & Marakas 2008). This is supported by the movement towards service-oriented architectures (SOA) and as described in (Microsoft 2010, SAP 2010, Oracle 2010) the opening of most P-ERP towards development of user modules, value-added reseller (VAR) add-ons and Enterprise Integration Architectures (EIA) to interface with external systems. There is a demand for openness in the P-ERP world that works both as a competitor to FOS-ERP, but also tries to mimic the advantages of OSS. This creates obstacles to and potentials for FOS-ERP. These will be discussed further below.

FOS-ERP should be an attractive option for any enterprise wanting to search for alternatives to existing, costly and inflexible enterprise systems (Johanson & Sudzina 2009). FOS-ERP provides flexibility, influence, broad networked contacts and probably reduced costs. However, it seems that FOS-ERP from the emerging period 2003-2008 still has some way to go to gain the same momentum as e.g. positive Open Source cases, such as Linux, Firefox or StarOffice (Bitzer 2004). Despite decent growth rates FOS-ERP seems difficult to spot in the statistics, individual cases remain "exotic" (Compiere 2008).

It is the general assumption in this chapter that FOS-ERP or certain variants of FOS-ERP is beneficial to most enterprises in many cases (Lemos 2008). The overall perception of FOS-ERP is, however, that many barriers exist in the enterprises' understanding of FOS-ERP; the attractiveness, the assumed market-orientation and the enterprises ability to operate a FOS-ERP (Gruman 2007). In addition, FOS-ERP should be viewed in light of innovation and technology management, namely management of information technology. Ågerfalk and Fitzgerald (2008) emphasise attention to the strength of open source development models to instate distributed and globalised development. Their approach to view customer and (open source) community responsibilities and obligations has been very beneficial to this chapter.

Issues contributing to the understanding of FOS-ERP are vendor identification and confidence. Normally, P-ERP is purchased through a combined reseller and consulting company representing the duality of software and services. With FOS-ERP, the software reselling is somewhat different, not imposing an issue in other open source scenarios, but probably critical in senior management optics of risk management (Lin 2008, Goode 2005).

Attractiveness of FOS-ERP should be a multitude of decision parameters of the user enterprise (Hauge et al 2010). Here, regular ERP acquisition or purchasing processes must be viewed – including value of decision parameters, such as partial upgrades, totality of infrastructure and applications, security issues, learning curve and technology cultures of the enterprise. Fitzgerald (2006) found that more mature open source projects pay attention to these more enterprise-oriented issues.

Open source (Kavanagh 2004) and innovation should be a closely linked discussion (Harison & Koski 2009, Krogh 2003, Hicks & Pachamanova 2007). In realising that one company cannot manage all aspects of innovation, large communities of contributors have proven to be an alternative and attractive option (Ajila & Wu 2007). Open architectures and interoperability are addressed in (Joode & Egyedi 2005, Anand & Ganesh 2006). When discussing innovation within ERP, there is

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