



User acceptance model of open source software

M. Dolores Gallego ^{a,*}, Paula Luna ^b, Salvador Bueno ^a

^a *Department of Business Administration, University Pablo de Olavide, Ctra. de Utrera, km. 1. 41.013 Seville, Spain*

^b *Department of Financial Economics and Operational Management, University of Seville, Avda. Ramón y Cajal, 1. 41.005 Seville, Spain*

Available online 11 December 2007

Abstract

The development and implementation of open source software (OSS) is one of the most current topics within the academic, business and political environments. Traditionally, research in OSS has focused on identifying individual personal motives for participating in the development of an OSS project, analyzing specific OSS solutions, or the OSS movement, itself. Nevertheless, user acceptance towards this type of technology has received very little attention. For this reason, the main purpose of the current study is to identify the variables and factors that have a direct effect on individual attitude towards OSS adoption. Therefore, we have developed a technological acceptance model on behalf of the users towards a solution based on OSS. For this development, we have considered the technology acceptance model. Findings show that OSS is a viable solution for information management for organizations.

© 2007 Elsevier Ltd. All rights reserved.

Keywords: Open source software; Technology acceptance model; Adoption

1. Introduction

From a professional, academic, business and political standpoint, few topics are as current as the development and implementation of open source software (OSS). The changes introduced by OSS in the software industry have been surprising, and represent a radical

* Corresponding author. Tel.: +34 954 34 91 74; fax: +34 954 34 83 53.

E-mail addresses: mdgalper@upo.es (M.D. Gallego), luna@us.es (P. Luna), sbueavi@upo.es (S. Bueno).

change of perspective in developmental business models and software distribution. In that sense, OSS is used for example as a commercial weapon to attack competitors, as a commercial strategy to acquire new market shares, or as a powerful means to disseminate innovation and research results (Fuggetta, 2003). This change has turned OSS into one of the most debated topics among software users and analysts.

In recent years, OSS use has rapidly grown among organizations and users, thanks to the advantages that it offers when compared to proprietary software (Ruffin & Ebert, 2004). One of the first perceived advantages of OSS is the cost reduction, not just licensing revenues but for the increasingly available skill set of OS techies in the workforce. Another set of important advantages are the more reliable and secure OSS solutions than their commercial counterpart, and the increasing adoption of OSS as a business strategy (Carbone & Stoddard, 2001). As a consequence of its evolution, a great amount of research has been done on OSS. Traditionally, this research has focused on, either the identification of the personal motives of the people who participate in the development of an OSS project (Bonaccorsi & Rossi, 2003b; Hars & Ou, 2002; Hertel, Niedner, & Herrmann, 2003; Lakhani & Wolf, 2003; Ye & Kishida, 2003; Ryan & Deci, 2000), or the analysis of specific solutions that are developed by the OSS movement (Carbone & Stoddard, 2001; Federman, 2006; Fink, 2003; Franke & Von Hippel, 2003; Mustonen, 2003), or on the OSS movement, itself (Bonaccorsi & Rossi, 2003a; Dwan, 2004; Fuggetta, 2003; Johnson, 2002; Krishnamurthy, 2003; Lakhani & Von Hippel, 2003; Lerner & Tirole, 2002; Sandred, 2001; Scacchi, 2002; Shen, 2005; Van Wendel & Egyedi, 2005; West, 2003).

However, user acceptance towards this type of technology has received very little attention. For this reason, we have researched and developed an acceptance model for what users feel to be a solution based on OSS. For this development, we have considered Davis' Technology Acceptance Model (TAM) (Davis, 1989) which provides the theoretical and methodological framework capable of explaining OSS acceptance among users. Also, we want to develop and validate a questionnaire for measuring the acceptance of OSS on future studies. With these objectives in mind, we have carried out a study on users of the Linux operating system.

2. TAM methodology and hypothesis

The TAM model developed by Davis (1989) has been widely applied with the purpose of understanding the conduct and motivational factors that influence IS/IT adoption and use. Just as Venkatesh and Davis (2000) indicate, only 10 years after the model publication, the Social Science Citation Index listed more than 400 articles that had cited both of Davis' introductory articles on TAM methodology, Davis (1989) and Davis, Bagozzi, and Warshaw (1989). Since then, the model has become well established as a powerful and efficient tool for predicting user acceptance.

The TAM model is an adaptation of the theory of reasoned action (TRA) proposed by Fishbein and Ajzen (1975) to explain and predict the behavior of organizational members in specific situations. TAM adapts the TRA model to provide evidence for the general factors that influence IS/IT acceptance in order to help determine user behavior towards a specific IS/IT (Pijpers, 2001). This powerful model allows for a contrast in behavior on the part of the user and is based on four fundamental variables or constructs which are: perceived usefulness (PU), perceived ease of use (PEA), intention to use (IU) and usage behavior (UB).

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات