
Fiona Fui-Hoon Nah, Missouri University of Science and Technology, Rolla, MO, USA
Xin Tan, Fairleigh Dickinson University, Teaneck, NJ, USA

ABSTRACT

The success of Enterprise Resource Planning (ERP) implementation depends, to a large extent, on end-users’ acceptance of ERP systems, which in turn affects the intensity and nature of system use. To understand the phenomenon underlying end-users’ acceptance of ERP systems, the authors conducted a grounded theory research in a large institution that implemented an ERP system. Through systematic coding and content analysis, the authors inductively derived a theoretical model to explain end-users’ acceptance of ERP systems. Three categories – beliefs about the system, changes in job scope, and social influence – emerged from the data as direct antecedents of user acceptance. The data also suggest that “beliefs about the system” mediates the influence of “training and support” and “personal characteristics” on user acceptance, whereas “personal characteristics” moderate the influence of “changes in job scope” on user acceptance. The theoretical model that emerged from this qualitative study extends existing models of user acceptance by providing a more complete understanding of end-users’ acceptance of ERP systems.

Keywords: Axial Coding, End-users’ Acceptance, Enterprise Resource Planning (ERP), Open Coding, Selective Coding

1. INTRODUCTION

Designed to replace disparate legacy systems and to support a full range of business functions, Enterprise Resource Planning (ERP) systems integrate business processes by standardizing data, storing them in a shared database, and making the data accessible on a real time basis. Davenport (1998) characterized the embrace of ERP as the most important development in the corporate use of information technology. In the twenty-first century, adoption and implementation of ERP systems in businesses of different sizes and industries continue to grow. The worldwide ERP

DOI: 10.4018/JDM.2015100103
software market was $7.3 billion in 2000 (McAdam & Galloway, 2005) and has increased to $25.4 billion in 2013 (Columbus, 2014).

Interests in implementing ERP systems are primarily driven by their appeal as fully integrated systems that replace disparate legacy systems. In addition, adopting organizations are presumed to benefit from the best business practices embedded within ERP software packages (Davenport, 1998; Nah, Islam, & Tan, 2007; O’Leary, 2000; Sieber, Siau, Nah, & Sieber, 2000; Lee, Siau, & Hong, 2003). As the transition to ERP often involves fundamental organizational changes, the costs of implementation are generally much higher than those of other information systems projects (Hitt, Wu, & Zhou, 2002). Despite the huge investments, many ERP implementations, i.e., up to about 70% of them, fail to deliver anticipated benefits (Galy & Sauceda, 2014).

Given the growing significance of ERP projects, research that focuses on ways to improve ERP implementation is of high relevance (Robey, Ross, & Boudreau, 2002). IS researchers have identified a number of key factors that are critical to ERP implementation success (Al-Sabaawi, 2015; Barker & Frolick, 2003; Chang, Cheung, Cheng, & Yeung, 2008; Hong & Kim, 2002; Nah & Delgado, 2006; Nah, Lau, & Kuang, 2001; Nah, Zuckweiler, & Lau, 2003; Ngai, Law, & Wat, 2008; Ram & Corkindale, 2014; Scott & Vessey, 2002; Siau, 2004; Wah, 2000). While many key success factors address organizational level issues such as management support, change management, and communication, the ultimate goal is to have the functional potential of the ERP systems fully realized by users. In other words, the true business value of an ERP system is derived through appropriate use by its target user groups.

Understanding users’ acceptance, particularly post-adoptive behaviors, associated with information technology enabled work systems has been regarded as one of the most important topics among IS researchers (Jasperson, Carter, & Zmud, 2005). A majority of the conceptualizations of IT acceptance have drawn on theories from psychology and organizational behavior, notably the theory of reasoned action (TRA), the theory of planned behavior (TPB), and diffusion of innovation theory (Agarwal, 2000; Ajzen, 1991; Ajzen & Fishbein, 1980; Rogers, 1983). In the context of ERP implementation, some researchers have taken a similar approach to investigating users’ acceptance (e.g., Bagchi, Kanungo, & Dasgupta, 2003; Brown, Massey, Montoya-Weiss, & Burkman, 2002; Nah, Tan, & Teh, 2004). However, there are some critiques toward applying traditional theoretical frameworks to explain ERP acceptance by users. First, ERP is more expensive and has greater scope than most information technologies. It poses some distinctive constraints on business processes (Boudreau & Robey, 1999) and ultimately on its users. ERP implementations also generate a multitude of expected and unexpected consequences in the users’ environment. Second, ERP systems require and enable inter-departmental coordination. Thus, ERP systems’ usage is highly mandatory because one user’s tasks on the system are tightly coupled and integrated with other users’ tasks. These emerging issues contributed to the lack of a comprehensive framework for explaining end-users’ acceptance of ERP systems.

The purpose of this study is to fill this important gap in the literature by identifying a comprehensive set of factors that influence end-users’ acceptance of ERP systems. This study was conducted in a large institution that implemented an ERP system. By interviewing various end-users of the ERP system, we were able to explore the nature of acceptance in the ERP context and the factors that influence end-users’ acceptance. Data collection and analysis were carried out using the grounded theory approach (Strauss & Corbin, 1990). A model of end-users’ acceptance of ERP systems emerged from this study.

The rest of the paper reviews the IS literature on end-users’ acceptance, explains the grounded theory approach for the study, reports and discusses the findings, and concludes the paper.
Related Content

Bug Fixing Practices within Free/Libre Open Source Software Development Teams
[www.igi-global.com/article/bug-fixing-practices-within-free/3383?camid=4v1a](www.igi-global.com/article/bug-fixing-practices-within-free/3383?camid=4v1a)

Design of a Data Model for Social Networks Applications
[www.igi-global.com/chapter/design-data-model-social-networks/4307?camid=4v1a](www.igi-global.com/chapter/design-data-model-social-networks/4307?camid=4v1a)
Fuzzy Decision Rule Construction Using Fuzzy Decision Trees: Application to E-Learning Database
www.igi-global.com/chapter/fuzzy-decision-rule-construction-using/44385?camid=4v1a

A Database Interface for Link Analysis
www.igi-global.com/article/database-interface-link-analysis/3327?camid=4v1a