

Chapter 6

A Theoretical Framework for IT Consumerization: Factors Influencing the Adoption of BYOD

Ibrahim Arpacı
Gaziosmanpaşa University, Turkey

ABSTRACT

The chapter provided a comprehensive review of previous studies on the adoption of information and communication technology (ICT). The study further conducted a qualitative study on the adoption of “bring your own device” (BYOD). The study systematically reviewed technology acceptance theories and models such as TAM, TPB, and UTAUT at the individual level and technology adoption theories such as “innovation diffusion theory,” “technology-organization-environment framework,” and “institutional theory” at the organizational level. Thereby, key factors predicting the ICT adoption at the individual, organizational, institutional, and environmental level were identified. A theoretical framework that explains the ICT adoption and the consumerization process was proposed based on the theories. The qualitative data collected by semi-structured interviews with senior-level managers was analyzed using the content analysis. The findings suggested that perceived financial cost, compatibility, privacy, and security concerns were significant factors in predicting the enterprise’s adoption of BYOD.

INTRODUCTION

This study conducted a systematic review that provides a bibliography of the relevant literature, both qualitative and quantitative. During the review process, the study first formulated the research problem, and then performed a literature search, and finally, analyzed and interpreted the findings. The keyword combinations including “technology adoption” and “organizational adoption” were searched in the Scopus and ISI Web of Science databases that were selected to ensure quality and comprehensive data collection. Thereby, the articles indexed in Scopus or SSCI/SCI/ESCI and published in peer-reviewed journals between 2004 and 2017 were included in the study. This study conducted a content analysis to analyze the bibliographic data. Thereby, the articles were coded based on the research purpose, research

DOI: 10.4018/978-1-5225-6367-9.ch006

method, research design, data collection/analysis method and findings. Thereby, this study identified theoretical underpinnings of the theoretical framework for the ICT adoption. The theoretical framework suggested the consumerization of ICT as a solution for organizations, specifically, for small-and-medium sized enterprises. Accordingly, this study conducted a qualitative study on the adoption of BYOD based on data collected from senior level managers. The findings suggested the key factors predicting enterprise's adoption decisions on BYOD.

LITERATURE REVIEW

Individual Level Adoption

The literature classifies technology acceptance or adoption theories and models based on the applicability to individuals or organizations. Well-known theories that explain ICT adoption by individuals are "Technology Acceptance Model" (TAM) (Davis, Bagozzi, & Warshaw, 1989; Davis, 1989), "Theory of Planned Behavior" (TPB) (Ajzen, 1985, 1988, 1991), and "Unified Theory of Acceptance and Use of Technology" (UTAUT) (Venkatesh, Morris, Davis, & Davis, 2003).

Technology Acceptance Model

TAM focused on two main theoretical constructs, including "perceived usefulness" and "perceived ease of use," which were argued to be key determinants of the ICT adoption. Davis (1989) developed and validated a psychometric scale to measure "perceived usefulness" and "perceived ease of use" through a longitudinal study and found that both constructs were significantly correlated with the ICT adoption. Moreover, Davis (1989) suggested that "perceived ease of use" and "perceived usefulness" can predict the attitudes toward using a technology or system. Attitudes can also predict individuals' behavioral intentions to use a technology or system. Further, use or acceptance of the technology or system is predicted by the behavioral intentions (See Appendix A for the definitions of terms).

TAM has been adapted to understand individuals' acceptance or use of a new technology or system. For example, Arpaci (2016) used the TAM as a theoretical framework and reported that subjective norm, perceived usefulness, and trust were significant factors in predicting the cloud services adoption. In another study, Arpaci, Yardimci Cetin, and Turetken (2015) argued the impact of perceived security on the smartphone adoption and suggested that security, perceived usefulness, and perceived ease of use significantly affect the adoption. In a recent study, Arpaci (2017) found that knowledge management functions have a significant effect on perceived usefulness and innovativeness. Further, training and education have a significant effect on the perceived ease of use of cloud computing services.

Theory of Planned Behavior

Ajzen (1991) developed the TPB by extending "Theory of Reasoned Action" (TRA; Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1980). The TPB theorized that a behavior could be determined by behavior intentions, which are predicted by three external factors, including "subjective norms," "perceived behavioral control," and "attitudes." These were also related to a set of normative, control, and behavioral beliefs toward that behavior.

14 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/a-theoretical-framework-for-it-consumerization/208795

Related Content

Design and Optimizations of Lattice Boltzmann Methods for Massively Parallel GPU-Based Clusters

Enrico Calore, Alessandro Gabbana, Sebastiano Fabio Schifano and Raffaele Tripiccone (2018). *Analysis and Applications of Lattice Boltzmann Simulations* (pp. 54-114).

www.irma-international.org/chapter/design-and-optimizations-of-lattice-boltzmann-methods-for-massively-parallel-gpu-based-clusters/203087

Trends in Peace Research: Can Cyber Détente Lead to Lasting Peace?

Nenad Putnik and Mladen Milošević (2018). *Cyber Security and Threats: Concepts, Methodologies, Tools, and Applications* (pp. 1694-1711).

www.irma-international.org/chapter/trends-in-peace-research/203581

A Radical Image Steganography Method Predicated on Intensity and Edge Detection

Abhijit Sarkar and Sabyasachi Samanta (2023). *Novel Research and Development Approaches in Heterogeneous Systems and Algorithms* (pp. 173-190).

www.irma-international.org/chapter/a-radical-image-steganography-method-predicated-on-intensity-and-edge-detection/320130

Using Model-Driven Risk Analysis in Component-Based Development

Gyrd Brændeland and Ketil Stølen (2012). *Dependability and Computer Engineering: Concepts for Software-Intensive Systems* (pp. 330-380).

www.irma-international.org/chapter/using-model-driven-risk-analysis/55335

Fuzzy Electronic Supply Chain System: Customer Satisfaction and Logistic Aspects

Hamed Fazlollahabadi, Hamed Hajmohammadi, Iraj Mahdavi, Nezam Mahdavi-Amiri and Amir Mohajeri (2012). *Computer Engineering: Concepts, Methodologies, Tools and Applications* (pp. 1492-1504).

www.irma-international.org/chapter/fuzzy-electronic-supply-chain-system/62525