Investigating the Influence of Security, Privacy, and Legal Concerns on Employees' Intention to Use BYOD Mobile Devices

Completed Research Paper

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ABSTRACT

The concept of Bring-Your-Own-Device (BYOD) describes the trend of employees using their private mobile devices to manage corporate data from anywhere at any time. BYOD can increase employees' productivity and be cost-cutting for organizations. To implement BYOD, organizations are dependent on employees' acceptance of BYOD, because employees' participation usually is voluntary. As employees' acceptance is affected by uncertainty, we investigate the influence of security, privacy, and legal concerns on the intention to use BYOD mobile devices. A research model is developed based on the theory of reasoned action (TRA) and the technology acceptance model (TAM), which is tested by means of structural equation modeling (SEM) with data collected from 151 employees. Our results indicate a significant impact of the concerns on employees' acceptance. Moreover, our study reveals employees' indecision towards their intention to use their private mobile devices for working purposes. Several implications for future research and practitioners are given.

Keywords

Bring-Your-Own-Device (BYOD), mobile devices, security concerns, privacy concerns, legal concerns, theory of reasoned action (TRA), technology acceptance model (TAM), structural equation modeling (SEM)

INTRODUCTION

As a result of innovations in the form and usability of mobile devices and the widespread adoption of mobile data networks (Tu and Yuan, 2012), mobile computing devices became a part of daily life for many users (Moreno, Tizon and Preda, 2012). Mobility is also a main driving factor of the modern service society (Zaplata, Lammersdorf and Kunze, 2009). Due to the increased convenience, efficiency, and productivity of mobile devices, more and more organizations are looking for ways to implement mobile devices into their information technology (IT) infrastructure to take advantage of the flexibility these devices offer (Scheepers and Scheepers, 2004).

At the intersection between private ownership and corporate deployment, the concept of bring-your-own-device (BYOD), emerged over the past several years and is already common in organizations of all sizes (Johnson and Joshi, 2012; Miller, Voas and Hurlburt, 2012). BYOD can be described as the use of employees' privately owned mobile devices for working purposes (Johnson and Joshi, 2012; Niehaves, Köffer and Ortbach, 2012), e.g. to "access corporate applications like email and databases; and to create, store and manage corporate data using these devices" (Osterman Research, 2012). Following Friedman and Hoffman (2008), mobile devices are "portable electronic systems that store and manipulate potentially confidential information". In the context of this study, we refer to smartphones and tablet PCs as mobile devices.

BYOD is often linked to several advantages for both employees and organizations. From an employees' point of view these are greater freedom and flexibility, increased motivation as well as easier adoption of technology (Niehaves et al., 2012). These benefits lead to a higher job satisfaction (Osterman Research, 2012). Since a positive job satisfaction increases