A Perception-Based Model for Mobile Commerce Adoption in Vietnamese Small and Medium-Sized Enterprises

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ABSTRACT

This paper investigates the critical determinants for the adoption of mobile commerce (m-commerce) in Vietnamese small and medium-sized enterprises (SMEs) from the perspective of managers. A perception-based conceptual model is developed with respect to the technology-organization-environment framework. The conceptual model is then tested and validated using structural equation modelling on the data collected from 513 SMEs in Vietnam. The study shows that perceived benefits, perceived compatibility, perceived security, perceived organizational readiness, and perceived customer pressures are critical for the adoption of m-commerce. As the first study on the critical determinants for m-commerce adoption in Vietnam, these findings are useful for SME managers as well as policymakers in designing policies as strategies to promote the wide development and diffusion of m-commerce in SMEs in Vietnam and other developing countries.

KEYWORDS

Mobile Commerce, Perception-Based Model, SMEs, Technology Adoption, Vietnam

INTRODUCTION

Mobile commerce (m-commerce) is about buying and selling of goods and services through wireless handheld devices such as cellular phones and personal digital assistants (Njenga, Litondo & Omwansa, 2016; Chau & Deng, 2018a). It provides businesses, especially small and medium-sized enterprises (SMEs) with cost-effective ways to promote their products and services online (Hong, 2019). This has numerous benefits including improving productivity, increasing customer satisfaction, and lowering operational costs (Varshney, Malloy, Ahluwalia & Jain, 2004; Chau & Deng, 2018b; Duan, Deng & Luo, 2019). As a result, m-commerce is becoming increasingly popular across the world.

Despite the benefits, the adoption of m-commerce in SMEs in developing countries remains limited (Nafea & Younas, 2014). In Vietnam, for example, only 20% of SMEs have built websites

for promoting their business. About 70% of these websites are difficult to access by mobile devices (VECITA, 2017). Such poor adoption in SMEs is due to the complex adoption process (Stoica, Miller & Stotlar, 2005) in which many factors such as individual attributes (Njenga et al., 2016), technological, organizational, and environmental aspects (Jain, Le, Lin & Cheng, 2011; Njenga et al., 2016), managerial issues (Alfahl, Houghton & Sanzogni, 2017), and trust (Rahman, 2013) affect the adoption of m-commerce. To improve the adoption in SMEs, better understanding the critical determinants for m-commerce adoption is significant.

Numerous studies have been conducted for investigating the adoption of m-commerce under various circumstances (Jain et al., 2011; Lu, Hu, Huang & Tzeng, 2015; Martin & Jimenez, 2015; Alfahl et al., 2017). A comprehensive investigation of such studies reveals that most studies on organizational m-commerce adoption focus on large enterprises, with limited research on SMEs (Chau & Deng, 2018a, 2018b). Since SMEs possess unique characteristics (Duan et al., 2019), the research findings from these studies may not be applicable to SMEs. As a result, more research on SMEs is needed to bridge this gap in the literature.

Understanding the critical determinants of m-commerce adoption requires a comprehensive investigation of the characteristics of m-commerce from the perspective of organizations. Such characteristics can be either primary or secondary (Downs & Mohr, 1976). The primary characteristics are related to m-commerce itself. These characteristics are independent of the perception of the organization. The secondary characteristics are related to the perception of the organization (Downs & Mohr, 1976). Decision-makers usually evaluate the characteristics of specific innovations for adoption (Sutanonpaiboon & Pearson, 2006). Their perception of these characteristics leads to the adoption. Because different organizations perceive the primary characteristics in different ways, their decisions on innovation adoption might differ. This indicates the limitation of primary characteristics in innovations adoption studies. It proves the importance of the perception of organizations in exploring the critical determinants of m-commerce adoption.

This study investigates how the perception of SMEs on m-commerce influences its adoption. It aims to (a) identify a comprehensive set of the perceived characteristics of m-commerce adoption and (b) examine the influence of such characteristics on the adoption of m-commerce in Vietnamese SMEs. To achieve these aims, a perception-based conceptual model for m-commerce adoption in Vietnamese SMEs is developed with respect to the technology-organization-environment framework. The conceptual model is then tested and validated using structural equation modelling (SEM) on the data collected from 513 SMEs in Vietnam.

This study has important implications for both theory and practice. Theoretically, the study contributes to organizational m-commerce adoption literature by developing a perception-based model for identifying the critical determinants in SMEs. Practically, the study identifies the critical determinants for m-commerce adoption, leading to the formulation of specific strategies and policies to facilitate the development of m-commerce in SMEs under various circumstances.

THEORETICAL BACKGROUND

The technology-organization-environment framework (TOE) is often used to examine the overall contextual basis from the organizational perspective for the adoption of technological innovations (Duan, Deng & Corbitt, 2012). It aims to understand how the organizational context influences the adoption of technological innovations (Baker, 2012). This framework states that the adoption of technological innovations is influenced by the technological context, the organizational context, and the environmental context (Tornatzky & Fleischer, 1990). The technological context is about the technologies available. The organizational context concerns the availability of organizational resources for adopting technological innovations. The environmental context is related to the environment in which organizations conduct business. These three contexts present "both constraints and opportunities for technological innovations" (Tornatzky & Fleischer, 1990). A holistic

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