Contents lists available at ScienceDirect

Telematics and Informatics

journal homepage: www.elsevier.com/locate/tele

Mobile advertising: The changing landscape of the advertising industry

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ARTICLE INFO

ABSTRACT

As mobile technologies continued to advance, a new platform of advertising known as mobile advertising (m-advertising) has emerged. This study explores factors that influence consumers' behavioral intention (BI) to use m-advertising by proposing an extension of Unified Theory of Acceptance and Use of Technology (UTAUT) model with personal innovativeness in information technology (PIIT), perceived enjoyment (PEJ) and mobile skillfulness (MS). Using Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine a sample size of 271 respondents, the findings reveal that all the constructs in UTAUT have positive and significant effect on BI. Additionally, the results also support MS as a major determinant of performance expectancy (PE), effort expectancy (EE) and PEJ. In terms of control variables, gender and experience were found to have no confounding effects on the BI to use m-advertising. The research model can provide useful insights for scholars and mobile marketers to facilitate the growth of m-advertising in the mobile market environment. Practical contribution of the study will provide useful information for scholars and mobile marketers to facilitate m-advertising growth in the mobile market environment.

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1. Introduction

The involvements of using mobile devices (m-devices) for communications have become a vital part of consumers' daily activities. The continuing evolutions of Internet coupled with higher penetration rate of mobile phones have created a new platform for marketing activities known as mobile advertising (m-advertising). According to Nasco and Bruner (2008), through m-devices, marketers can tailor their mobile messages to communicate with consumers on their products and services. Hence, m-devices are no longer viewed solely for voice communication (Kim and Jun, 2008) or message handling (Sullivan Mort and Drennan, 2002), but also as an advertising channel to reach a specific consumer segments based on their usage habits and preferences. Unlike traditional advertising mediums such as newspapers, magazines, television and radio, m-advertising offers advantages such as the potential to reach the right consumers at anytime and anyplace (Maneesoonthorn and Fortin, 2006) with mobile characteristics (Yang, 2007). Apart from receiving advertising messages through traditional forms of advertising, consumers can also search for the necessary advertising information (Chen and

Hsieh, 2012). In another words, m-advertising "can complement Internet and interactive television advertising and make it possible for advertisers to create tailor-made campaigns targeting users according to where they are, their needs of the moment and the device they are using" (Yuan and Tsao, 2003, p. 399). In this respect, m-advertising is seen as an encouraging channel for organisations due to the features of the devices, namely: addressable, multimedia proficiencies and interactivity (Bulander et al., 2005), ubiquity, interactivity, personalization and time-sensitive (Wong and Tang, 2008). According to Zhang and Xiong (2012), m-advertising will become a popular form of advertising in the near future with the continuous advancement of wireless communication equipment and network technology. Based on a forecast made by Gartner, Inc – a research and advisory company, data revealed that the worldwide m-advertising revenues will reach US$20.6 billion by 2015 in which Asia/Pacific and Japan will be the leading markets, representing 33.60%, followed by North America (28.10%), Western Europe (24.90%) and the rest of the world (13.40%) (Pettey and van der Meulen, 2011).

Recognizing that advertising channels can be performed from a wired (e.g., fixed-line personal computers) to wireless environment (e.g., m-devices), the study on how consumers accept m-advertising is essential. Therefore, the search is on the critical factors that drive consumers' behavior towards m-advertising adoption. Solomon et al. (2006) concluded that consumers' attitude is important as they determine the acceptance on m-advertising. According to Tsang et al. (2004), most literatures report that consumers generally have negative attitudes toward advertising. A negative reaction on m-advertising is portrayed if consumers have negative attitudes towards prediction of intention (Drossos et al., 2007; Lee et al., 2006). In other words, the attitudes of individuals are expected to contribute in predicting intention (Bagozzi, 1981). In most of the past studies (e.g., Barakat and Sheikh, 2010; Shuang, 2010; Zhang and Xiong, 2012) focus was mainly on technology acceptance model (TAM) while there was little attempts conducted using Unified Theory of Acceptance and Use of Technology (UTAUT). Based on this rationale, the paper initiates to close the literature gap by proposing a theoretical-based understanding on the factors that could influence consumers to have a favourable attitude toward m-advertising.

The next sections discussed of the theoretical background on m-advertising and UTAUT adoption. Thereafter, the research hypotheses are presented to respond to our research questions. We have integrated personal innovativeness in information technology (PIIT), perceived enjoyment (PEJ) and mobile skillfulness (MS) with UTAUT in the development of our research model. This is followed by the research methodology and data analysis. Next, we will discuss the research findings and implications. Finally, the limitations, suggestions for future research and conclusion of the paper will be presented accordingly.

2. Theoretical background

2.1. M-advertising adoption

With the increasing penetration rate of m-devices, m-advertising has created a new opportunity for advertisers to transmit their promotional messages to their potential consumers (Kim and Heo, 2010). According to Barnes (2002), the introduction of m-advertising has not only presented advertisers with new business opportunities, but also for mobile application providers and telecommunications firms (Barnes, 2002). Spurgeon (2005) opines that one possible consideration on the revolution of advertising media via m-devices is due to the developments of mobile commerce technologies. M-advertising refers to "the business of encouraging people to buy products and services using the wireless channel as a medium to deliver the advertisement message" (IMAP (Innovative Interactive Mobile Advertising Platform) Project, 2003 as cited in Shen and Chen, 2008, p. 158). M-advertising allows the sending of personalized, customised and unique advertisements (Turban et al., 2002) as well as dialogues and transactions involving consumers with the advertised brands (Drossos and Giaglis, 2006). Mobile phones users can engage m-advertising activities through short message service (SMS), multimedia messaging service (MMS), Wireless Application Protocol (WAP) and Bluetooth. According to Keshtgary and Khajehpour (2011), SMS, MMS, WAP and Bluetooth are the most famous m-advertising technologies currently adopted. Keshtgary and Khajehpour (2011) elaborated that SMS yielded approximately 90% of worldwide mobile market revenue; MMS allows text, photo, audio and video messages to be sent concurrently; WAP sites allow connection of mobile phones to the Internet; whereas Bluetooth allows short range between 1 m and 100 m location based services. Apart from smart phones, m-devices like tablets/iPads are currently adopted as an alternative channels to deliver m-advertising (Tripathi and Siddiqui, 2008).

2.2. The theory of UTAUT model

UTAUT has been acknowledged as one of the latest models of general technologies adoption and acceptance. It has been increasingly given attention by researchers to explore on the users acceptance of new technologies adoption. Among a few of investigations that have proven the validity and reliability of the model are desktop computer applications (Al-Gahtani et al., 2007), electronic learning (Chen, 2011), mobile banking (Yu, 2012) and classroom technology (Lewis et al., 2013). Like previous acceptance models aim to analyze the intention and usage behavior to use a technology, UTAUT was developed by Venkatesh et al. (2003) which is an extension of TAM, representing a shift from technology acceptance to unified view. It remains the theoretical foundation of TAM by consolidating the concepts of social influence (SI) and environment factors with performance expectancy (PE) and effort expectancy (EE) which are identical to perceived usefulness (PU) and perceived ease of use (PEOU) from TAM in study of intention of technology acceptance and further to usage behavior. Although past literatures indicated that TAM is the most popular model used to investigate the acceptance of technology amongst