Chapter 9

Distinguish Significant Adoption Factors That Influence Users’ Behavioral Expectation to Utilize Mobile Payment: A Survey

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ABSTRACT

In this chapter, the authors performed an analysis of the data extracted from 39 peer-reviewed scientific publications between 2015 and 2018 describing users’ adoption of various mobile payment systems encompassing methods, technologies, adoption models, theories, variables of the adoption models and theories, as well as significant adoption factors. The analysis demonstrates that the technology acceptance model (TAM) is the most popular model to investigate users’ adoption of mobile payment. Both the original and extended versions of TAM are studied broadly to examine the individual’s intention to adopt mobile payment. In addition, the analysis of the results from this chapter demonstrates perceived compatibility has the strongest positive impact on the intention to use mobile payment technology whereas perceived risk has a negative relationship with the intention to use mobile payment technology.

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INTRODUCTION

According to the Digital in 2017 Global Overview report (“Digital in 2017”, 2018) smartphones are used in more than half of the world and the total numbers of worldwide consumers in 2017 reached 4.92 billion. Interestingly, there are also 1.61 billion people who make purchases via e-commerce and use e-payment systems to pay for products and services, including mobile payment. Apart from using mobile payments for online retail, e-payment systems are also used for other businesses like traditional retail and hospitality. Importantly, mobile payment usage and revenue are forecasted to rise sharply with The FinTech Mobile Payment report (“Mobile Payments”, 2018) highlighting that total global mobile payment revenue will reach $3.814 trillion annually by 2020.

The main purpose of this chapter is to review various peer-reviewed scientific articles in order to indicate the significant adoption factors that directly affect users’ behavioral intention and adoption of mobile payment from diverse adoption models and theories used in the peer-reviewed scientific articles.

Background

Mobile payment systems can be considered from the following different perspectives: ecosystem, technology and consumer. Ecosystems research relates to business models and strategic issues while technology studies include tools, mechanisms and protocols. Finally, consumer research focuses on the adoption mobile payment including adoption models and factors. According to Dahlberg et al. (2015), mobile payment research from 2007 to 2014 was dominated by consumer studies followed by technology and ecosystem studies.

Nowadays, the smartphone has become an important part of daily life and the number of global smartphone users has grown dramatically. According to the Wireless Smartphone Strategies services report (Sui et al, 2017), the worldwide number of smartphone users is forecast to rise nearly 60% from 2016 to 2022. In developing markets, the highest smartphone penetration rates will be in Latin and Central America countries followed by the Asia Pacific. In contrast, the lowest smartphone penetration rate will be in the Middle East and African regions. As part of the advancement of smartphone technology, several providers have designed smartphones with functionality that includes internet access, social media, entertainment, and payment functions in order to meet the rising expectations of smartphone consumers.

The increasing number of smartphone users around the world has led to the growth of mobile commercial transactions in recent years. Mobile commerce can be defined as any transactions which are generated by the help of an electronic device connected to a computer-mediated network. These transactions include mobile banking, mobile transfer and mobile payment (Mhlongo et al, 2017). Moreover, smartphones can act as mobile money with a feature called digital wallet or mobile wallet because it performs the same function as a leather wallet (Rathore et al, 2016) According to the Global Mobile Wallet Market report (“Mobile Wallet”, 2017), the worldwide mobile wallet market is projected to grow at a Compound Annual Growth Rate (CAGR) of 35.6% from 2017-2022. In addition, escalating penetration of smartphones, changes in lifestyle in terms of fast and easy transactions, increased awareness of mobile wallets and their applications are further factors that are driving the growth of the mobile wallet market.

Mobile wallet can be a repository for essential personal details, like ID and payment cards, or non-essential personal details, like tickets for events and public transport (Mallat et la, 2007). This chapter considers mobile wallet in terms of mobile payment which can be defined as a payment transaction that is conducted by the mobile device to transfer funds or money directly or via an intermediary. The