Chapter 7
A Consumer Decision-Making Model in M-Commerce:
The Role of Reputation Systems in Mobile App Purchases

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ABSTRACT

The objective of this paper is to understand the importance of mobile reputation systems in mobile users' app discovery and purchase satisfaction. A theoretical framework describing the mediating effects of reputation systems on mobile app users' purchase satisfaction is developed and empirically tested with mobile app users. The findings of this study suggest that mobile reputation systems embedded in application stores play important mediating roles in mobile app purchase decision-making process and ultimately purchase satisfaction.

1. INTRODUCTION

As more and more consumers own smartphones over feature phones, mobile commerce (m-commerce) is the latest and critical frontier for marketers in the battle for the consumer's eyeballs, mind and wallet. According to a recent study conducted by the Pew Research Center's Internet & American Life Project, over 64% of American adults are now smartphone owners (Smith, 2015). Indeed, growing at 10 times the rate at which personal computers were adopted in the 1980s, smartphone adoption is considered the fastest in the history of consumer technology (Mlot, 2012). Even though hardware improvements such as better processing power and larger wireless network bandwidth have contributed to the popularity of smart mobile devices; fundamentally, it is the ability to run a large selection of feature-rich mobile applications that differentiates "smart" mobile devices from "dumb" ones (Charland & LeRoux, 2011;

Holzer & Ondrus, 2011). Not surprisingly, as the demand for smartphones soars, so too does the interest in mobile application and services.

In many ways, mobile applications are very different from their desktop counterparts. Because they tend to be used more frequently in short spurts, and on a limited screen size, it is important for mobile applications to deliver simple and focused functionalities that accomplish specific tasks, rather than general and complex features in a combined fashion (Salmre, 2005). In addition, modern smartphones are equipped with a touch screen and embedded sensors, including accelerometer, digital compass, gyroscope, GPS navigation, microphone and camera, which traditionally are not part of desktop computers. These innovations enable software developers to revolutionize the user interface and create a large array of user-friendly mobile applications to address virtually every aspect of mobile users' personal as well as professional needs. Since mobile applications first debuted in Apple's App Store and Google's Android Market (currently Google Play) in 2008, there has been an explosion in innovative mobile apps in the areas of healthcare, social networking, environmental monitoring and transportation (Lane et al., 2010). Other popular mobile app categories include games, music, banking, shopping, and productivity (Nielsen Report, 2010).

Apple App Store and Google Play are the two dominant app distribution channels that provide users a central location to effectively browse, purchase, download and update their mobile applications on their devices. Being mobile apps themselves, these app stores play a critical role in driving mobile app adoption and usage. In 2014, Apple announced that its App Store sales topped $15 billion. This shows the important contribution of mobile apps, especially when the majority of them are free or cost less than a cup of Starbucks coffee. However, with nearly 1.5 million mobile apps currently available in both Apple App Store and Google Play, choosing the right collection of apps to suit an individual's needs can be daunting for smartphone users. With the increasing presence of copycat or clone apps, consumers could further be misled in making their app purchase decisions (Dredge, 2012).

On a smartphone device, reputation systems embedded in mobile application stores may be crucial in guiding consumers to make app choices because they serve as a trust building mechanism between sellers and buyers. Trust has always been a fundamental aspect in business transactions between two parties. There's a degree of uncertainty, vulnerability and risk when both parties agree to engage in a business exchange. In a traditional real-world transaction, there are mitigating factors such as contextual or social cues that make the exchange easier; for example, a brick-and-mortar store builds trust through face-to-face negotiations. However, in e-commerce or an online exchange there is a great deal of asymmetry in the bilateral relationship because virtual buyers and sellers are often unknown to each other, and this may result in the seller not living up to the terms of the exchange. Trust and reputation, therefore, play an essential role in mitigating the information asymmetry caused by the fact that sellers are usually paid before buyers have the opportunity to try and consume the products (Wang & Emurian, 2005; Josang, Ismail, & Boyd, 2007; Kim, Ferrin, & Rao, 2008). Trusted sellers have a significant advantage because buyers are more likely to take the risk of buying from them even when the product or service quality cannot be verified in advance. It has been found that searching application stores on smartphones is the most popular method of app discovery and adoption for mobile users (Nielsen Report, 2010). In order to build trust between mobile app buyers and sellers, Apple App Store and Google Play have built-in reputation system features for apps sold in their app stores. Both app stores make use of reputation cues generated by users to establish a mobile apps' reputation, which mediates trust building between users and mobile apps sold. For example, both app stores not only aggregate the user-generated app ratings (explicit user input) but also rank the apps based on the actual app download data (implicit user input).

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