

# Chapter 39

## Investigating the Moderating Roles of Age and Ethnicity in Mobile Commerce Acceptance

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### ABSTRACT

*Mobile commerce (m-commerce) is becoming a major aspect of our human endeavours with the advancements in wireless technology. However, acceptance of m-commerce by consumers is critical to the successful implementation of m-commerce system by business organizations. This chapter examines key factors that influence mobile commerce adoption, and the moderating roles of age and ethnicity. The conceptual framework is underpinned on an extended technology acceptance model. The survey data was collected from participants selected from Malaysia. The analysis was based on 260 valid responses, and the findings reveal that age and ethnicity moderate behavioral intention to adopt m-commerce. Different age groups exhibit different perceptions. Further, cost and subjective norm become more important as age increases, while perceived usefulness becomes more significant as age decreases. Perceived cost and subjective norm are the common predictors for m-commerce adoption regardless of ethnicity. The contributions to research and practice including suggestions for future studies are discussed.*

### INTRODUCTION

Mobile phones are now a global communication and business device. The adoption of mobile phones tends to lead to an increase in the demand for mobile content. The initial products purchased through mobile devices were ringtones and games. However, with the diffusion of smartphones, consumers could now gain access to mobile Internet easily, compared to a feature phone. As electronic commerce (e-commerce)

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evolves, mobile commerce (m-commerce) progresses with advancements in mobile Internet platforms (for example, high speed 3G and 4G mobile Internet technologies). M-commerce is characterized by unique location-based services delivered by a variety of handheld terminals (Dholakia & Dholakia, 2004). While the advancement of mobile technologies facilitates m-commerce, and there are potentials for a huge increase in transactions over mobile platforms, m-commerce activities among consumers, however, are still evolving (Sadi & Noordin, 2011; Grau, 2009). In fact, the diffusion of m-commerce could be extensive if factors affecting consumers' adoption of m-commerce are researched extensively.

The research history of information technology acceptance indicates that knowledge of a system, assessment, and support, as well as system characteristics, are important factors affecting the usage of a technology. These factors are synthesized from established theories, such as Technology Acceptance Model (TAM) by Davis (1989) or the theory of Diffusion of Innovations by Rogers (1995) and Moore and Benbasat (1991). In this chapter, we extended the technology acceptance model to examine specific factors that could influence the intention to use m-commerce among Malaysians. The objectives of this chapter include determining the moderating roles of age and ethnicity in the influence of perceived trust, personal innovativeness, perceived cost, perceived ease of use, perceived usefulness, and social influence on consumers' adoption of m-commerce. The significance of cultural differences towards ICT adoption rate may be more pronounced in countries where there are different ethnic groups, such as Malaysia. Malaysia is shaped by multi-ethnic, multi-cultural and multi-lingual elements, in which the major ethnic groups, namely the Malays, Chinese, and Indians, live together, even before its independence from the British Empire in 1957, while maintaining separate cultural identities.

Literature show that there are extensive studies on m-commerce in Europe, North America, Australia, New Zealand, and other Asian countries such as Japan, South Korea, and China (Davis, 2010; Coursaris et al, 2003; Chang, et al 2009; Zhou & Lu, 2011). However, prior studies on m-commerce in Malaysia appear limited (Wei, Marthandan, Ooi, & Arumugam, 2009; Sreenivasan & Noor, 2010; Li & Lv, 2007; Eze & Poong, 2012), particularly studies focusing on young adults. In addition, prior research on m-commerce in Malaysia has focused mainly on assessing the infrastructure and growth of the phenomenon with less emphasis on dynamics exhibited among those willing to experience m-commerce. While there are pieces of existing literature addressing cultural issues from ethnicity viewpoint in technology adoption (Christopher, 2011; Fairlie, 2007), the number of such literature is limited, and is mainly dominated by Western studies. In addition, among these pieces of literature, there are nonetheless, studies on cultural difference across different countries, such as ones comparing culture in technology adoption between the Western and Eastern societies (see for example (Im, Hong and Kang, 2011)). Currently, researchers from the South East Asian countries have begun to study cultural differences within a single social system, such as Singapore and Malaysia (Straub et. al., 2002). Particularly, researchers in Malaysia tend to compare two ethnic groups, namely Malays, and Chinese, despite acknowledging that there are three main ethnic groups in Malaysia (see for example (Khalil, 2008; Lai et. al., 2010)). This chapter focuses on young adults' perspective on the contextual emergence of m-commerce adoption when demographic factors are considered. This chapter also focuses on m-commerce for both physical and non-physical goods. The findings in this chapter would contribute in several ways to knowledge as it extends the application of TAM to the mobile arena and provides additional information based on the factors considered critical to the development and advancement of m-commerce. The findings would also be useful to the industry as companies associated with m-commerce explore avenues to attract more clients.

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