Chapter XVIII
An Empirical Analysis of Cellular Phone Users’ Convenience Perception and Its Impact on Shopping Intention in Mobile Commerce

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ABSTRACT

Two mutually reinforcing forces currently are at work to propel an upward spiraling in the business arena. As wireless communication technology continues to advance in providing broadband connection to both static and mobile users, innovative user-centric Web-enabled services also are routinely being experimented to provide an unprecedented level of convenience for online shopping. Although the concept of convenience has been discussed extensively in retailing and consumer behavior literature, there still is a dearth of research that empirically validates the construct in the context of m-commerce. This chapter presents a study that was conducted to examine the effect of convenience on customers’ intention of shopping via their mobile communication devices. Three research hypotheses were formulated to test the claims derived from the literature. Hypothesis 1 states that the customer perception of convenience is significantly related to m-commerce customers’ demographical characteristics. Hypothesis 2 states that m-commerce customers’ convenience perceptions are significantly correlated with product/service features. Hypothesis 3 states that m-commerce customers’ shopping intention is significantly affected by their convenience perception. Primary data collected from college students in Taiwan were analyzed to examine the relationship between perceived convenience and shopping intention. The result shows a significant relationship between the two variables, and a positive effect of convenience perception on shopping intention. The findings have practical implications for m-commerce strategists by providing more understanding of the m-commerce success factors from a consumer behavior point of view.
INTRODUCTION

In e-retailing, an upward spiraling propelled by two mutually reinforcing forces is actively taking place to transform business operations and challenge traditional business thinking. These two forces are wireless communication technologies and innovative Web-enabled user-centric services. The marriage of online shopping and wireless communications is speeding up further development of an emerging market for mobile e-commerce, or m-commerce. As the business impact of e-commerce has been witnessed in almost every facet of the business arena, the continual advancement of broadband wireless Internet access capabilities is only adding to the even greater flexibility of the online shopping process for today’s business shoppers (Haskin, 1999). Specifically, Web-enabled wireless devices support shoppers to search for, communicate on, and purchase products and services from any location at any time. These convenient features are generally embraced by today’s busy customers and are helping to make e-commerce grow even further.

Wireless communications technology has received much attention in both voice and data communication markets. A marketing research firm called iSuppli predicts that the global wireless market will increase from the $520 million of 2004 to $430 million by 2010 (Focus on Internet News and Data, 2006). Telecom Trends estimates that almost 100 million people are m-commerce users today, and their numbers are expected to double in the near future (Fitchard, 2004). Lewis (1999) predicts that, as the average cost of wireless usage will drop substantially in the next several years, wireless Internet devices will outnumber wired devices. Wireless Business Forecast (2005) predicts that U.S. wireless customers will expand from the current 175 million to 200 million by 2008. Portio Research, a British research firm, estimates that a half of the world population will become mobile phone users by the year 2009 (Wu, 2006). China currently adds 3 million to 4 millions cellular phone users each month. By the end of January 2006, its cellular phone population has reached 400 million, the largest in the world (Focus on Internet News and Data, 2006).

Although these specific forecast numbers don't match, as is typical with other types of forecasts, it appears clear that, as wireless technologies and standards for security, bandwidth and interoperability continue to advance, the impact of online shopping via wireless communication devices is bound to become a crucial issue for information system professionals as they strive to support their organizations’ marketing and strategic initiatives.

Most of the existing literature on mobile commerce developments is a collection of anecdotal reports that centers on either technological advancement (e.g., Olla, et al., 2003) or business activities of technological service providers. Systematic empirical investigation into major aspects of m-commerce development to support theory building in this field is relatively limited. This problem was pointed out by Clarke (2001), saying that “Despite tremendous interest in the melioration of m-commerce, there is little, if any, research that examines how to develop a comprehensive consumer-oriented mobile e-commerce strategy (p. 134).” In attempting to furnish a theoretical basis for academic research, Clarke (2001) proposed four value propositions for m-commerce applications: ubiquity, convenience, localization, and personalization. Zhang, et al. (2002) also suggested three driving forces to account for m-commerce success: technology innovation, evolution of a new value chain, and active customer demand. Two related themes stand out in these researches regarding m-commerce: the importance of integrated business strategies that truly accommodate the unique features of mobile communication devices, mobile phone users and the significance of consumer-perceived convenience provided by the mobile devices.