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The Role of M-commerce Readiness in Emerging and Developed Markets

Abdul R. Ashraf

Assistant Professor of Marketing
Goodman School of Business, Brock University
St. Catharines, Ontario L2S 3A1, Canada
Tel: +1 905 688 5550 x5195, E-mail: arehman@brocku.ca

Narongsak (Tek) Thongpapanl*

Professor of Marketing and Product Innovation
Goodman School of Business, Brock University
St. Catharines, Ontario L2S 3A1, Canada
Tel: +1 905 688 5550 x5195, E-mail: TEK@brocku.ca

Research Fellow

Research Administration Center (RAC), Chiang Mai University
Chiang Mai 50200, Thailand

Bulent Menguc

Professor of Marketing
Leeds University Business School
Leeds LS2 9JT, U.K.
Tel: +44-(0)-113 343 1152, E-mail: Menguc@leeds.ac.uk

Gavin Northey

Lecturer in Marketing
University of Auckland Business School
Auckland 1142, New Zealand
Tel: +64 9 923 4950, Email: g.northey@auckland.ac.nz

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ABSTRACT

Although mobile commerce growth shows a promising trend and provides ample potential for retailers around the globe, several studies have shown that m-commerce has failed so far in attracting the hearts and minds of potential customers across different countries. Unlike past studies that examine single countries and/or developed markets, this study advances the literature by comparing m-commerce customers' behavioral intentions and actual behaviors using data from 812 m-commerce users across four countries (Australia, India, U.S., and Pakistan). This four-country context offers a unique opportunity for understanding how m-commerce consumers' behaviors differ across disparate national markets. We propose a conceptual framework linking m-commerce users' behaviors (intentions and actual usages) to its key drivers including ubiquity and habit, and develop hypothesis about the moderating roles of m-commerce readiness and habit in these linkages. The results reveal important asymmetries between m-commerce readiness stage and between habit: users at early m-commerce readiness stage assign more importance to ubiquity relative to habit in influencing purchase intentions, whereas the opposite is true for the users who are at an advanced m-commerce readiness stage. Habit moderates the influence of ubiquity such that its importance in determining intention decreases as the behavior in question takes a more habitual nature. We outline how m-retailers operating across different countries—developed and developing—should adapt their marketing strategies to customers at different m-commerce readiness stages.

Keywords: Mobile Commerce; Readiness; Habit; Ubiquity; Developed vs. Developing Markets

The Role of M-commerce Readiness in Emerging and Developed Markets

Smartphone usage and market penetration has grown, causing mobile commerce (m-commerce) to become an increasingly important area that has drawn much attention in both academia and industry. According to eMarketer (2014), more than one quarter (i.e., 2 billion people) of the global population will be smartphone users by 2016, whereas the global mobile retail revenues are projected to reach \$626 billion USD in 2018, an increase of 9.7% from 2012 (Statista 2015).

However, retailers and customers are apparently not ready for m-commerce: according to recent industry reports and research, m-commerce is still in its early stages. Almost 26% of the UK's top 50 and 79% of the U.S. top 100 retailers still lack mobile readiness (Applovin 2014; IAB Report 2013). A survey conducted by Strong View (2012), reflecting the attitudes of 802 business leaders in regards to m-commerce, revealed that lack of strategy is the top challenge in implementing m-commerce across the globe. Although the increased affordability and availability of mobile technologies and the rapid uptake of mobile phones worldwide have facilitated growth in some markets, notably U.S. and Australia (Chong, Chan, and Ooi 2012), the lack of market growth elsewhere, including South East Asian countries, indicates that improved affordability, functionality, and availability do not result automatically in the widespread adoption and use of m-commerce (Wang, Malthouse, and Krishnamurthy 2015; Zhang, Zhu, and Liu 2012).

A closer look at the literature offers some insight into what may account for the lack of theoretical and practical understanding regarding factors that drive m-commerce across different countries. First, several thought leaders propose that the ubiquitous nature of m-commerce (ability to conduct commerce anytime and anywhere) may change the paradigm of marketing, especially retailing (Shankar and Balasubramanian 2009; Shankar, Venkatesh, Hofacker, and Naik 2010). However, to our surprise, very few studies have formally tested

the effect of ubiquity on consumers' intentions and actual use of m-commerce (e.g., Morgeson, Sharma, and Hult 2015; Okazaki and Mendez 2013a). More concerning is that the studies that have empirically examined ubiquity have limited their analysis to a single country and have treated ubiquity as a unidimensional construct, thereby overlooking the subtleties inherent in the universality and multidimensionality of ubiquity (Okazaki and Mendez 2013a). This research conceptualizes ubiquity—being the most important utility of m-commerce—as a multidimensional construct and formally explores its role as an antecedent to intention and actual m-commerce usage behavior across Australia, U.S., India, and Pakistan.

Second, as companies are becoming more dependent on foreign markets for their revenue and profitability, firms such as Vodafone, AT&T, and T-Mobile have responded to such needs by becoming more global. Despite this increased interest, most of the studies in the international marketing literature have explored these linkages using single country samples, or at best compared differences between two countries (Aksoy et al. 2013). More importantly, these studies—especially conducted across different countries—have drawn inferences based on results from the overall sample without distinguishing between consumers who are at early or advanced stages of m-commerce readiness.

In the broader cross-national context, there is ample evidence indicating that the dissimilarity of customer backgrounds and stage of technology adoption inhibits international marketing standardization and demands adaptation (Keegan et al. 1987; Wang 1996). Drawing inferences without distinguishing the two groups (i.e., early versus advanced m-commerce readiness stage) may lead to a “Type I error as we would be overgeneralizing the significant findings to the underlying user groups” (Becker et al. 2013, p. 666). That is, a customer's m-commerce readiness stage across markets is likely not only to require the adaptation of technology, but also the adaptation of marketing program components (Katsikeas et al. 2006; Ashraf et al. 2014).

Katsikeas et al. (2006) have since argued that firms may generalize their scant knowledge about foreign markets and customers without actually appreciating the complexities involved, which may result in poor performance in international markets due to a misfit between the technology, product, or service being offered and contextual factors. Therefore, managers in the m-retailing sector—a major component of international business today—need to know the relative importance of the factors that influence the receptivity of consumers across nations to engage in m-commerce. More importantly, to deploy a technology, product, or service across nations successfully, it is essential to adapt it to the unique elements of the new market (Aksoy et al. 2013; Ashraf et al. 2014; Griffith, Hu, and Ryans 2000).

Finally, unlike past international marketing studies that have mainly focused on exploring the influence of rational, deliberate, and cognitive factors on intention to use mobile service (Aksoy et al. 2013; Morgeson et al. 2015), we incorporate habit as a factor that is more internal to individuals and explore its influence on m-commerce usage behavior. Both international marketing (Beck, Chapman, and Palmatier 2015; Siamagka and Balabanis 2015) and electronic commerce (Benbasat and Barki 2007; Venkatesh et al. 2012) researchers have called for more research into habit, which is understudied in these domains so far. In particular, depending on the readiness stage, we explore the differential effects that ubiquity and habit have on m-commerce users' behaviors across different countries.

We selected Australia, U.S., India, and Pakistan for inclusion in our study for several reasons. First, these four countries provide a diverse set that corresponds to varying levels of Hofstede's cultural dimensions (e.g., individualism-collectivism and uncertainty avoidance). Second, to achieve the objectives of this study, data was to be obtained from countries that are not only culturally different but are also at different stages of m-commerce readiness. Third, these countries provide significant potential for mobile retailers (m-retailers). That is, Pakistan

and India are among the fastest-growing economies, with populations of 180 million and 1.237 billion, respectively, roughly half of whom are between 15 and 29 years of age and are quickly catching up to their Western counterparts in terms of mobile Internet usage. In contrast, the m-commerce market in Australia and U.S. is relatively mature. Australia's mobile commerce market is predicted to grow strongly from \$22 billion in 2014 to \$54 billion in 2019, whereas U.S. mobile commerce sales totaled \$104.05 billion in 2015, up 38.7% from \$75.03 billion in 2014 (Internet Retailer 2015). Hence, the different cultural backgrounds and m-commerce readiness stages of Australia and U.S. and India and Pakistan provide us with a platform to examine the potential differential effects of two key drivers (habit and ubiquity) of m-commerce usage.

CONCEPTUAL DEVELOPMENT

Compared to other traditional services such as retail and banking, the mobile telecommunication sector possesses a unique and under-investigated set of factors that shape and drive consumer behaviors (Aksoy et al. 2013). Although m-commerce has been adopted well in developed countries, it is still at a growing stage in many developing countries (Aksoy et al. 2013; Morgeson et al. 2015). For example, there is significant potential for m-commerce in China, India, Malaysia, and Pakistan as mobile phone users by far exceed Internet users; however, mobile Internet users do not monetize as well as users in developed countries (Chong et al. 2012). In fact, m-commerce is still not well accepted by customers in China, Malaysia, (Chong et al. 2012), India (Thakur and Srivastava 2014), and Pakistan (Sultan, Rohm and Gao 2009).

As mobile telecommunication companies, along with retailers, have shifted their focus on foreign markets as a substantial source of their revenue growth, the marketing in general and international market research in particular has also focused more on exploring and understanding the cross-national differences of mobile service users. Although many elements

of the service delivery process remain the same across diverse countries, the inevitable differences in the “fundamental nature of customers across virtually any two markets (let alone several distinct markets simultaneously) demands careful attention” (Morgeson et al. 2015, p. 2). That is, the success of international marketing strategy depends on the extent to which there is a fit between the environmental and market conditions of each foreign market targeted (Katsikeas et al. 2006; Schmid and Kotulla 2011). According to both recent research and industry reports, substantial investments in marketing activities aimed at motivating mobile users to adopt and continue using m-commerce has failed to yield desired results (Morgeson et al. 2015; Wang et al. 2015; Strong View 2012).

In short, efforts to convince customers belonging to very different populations may not produce similar results unless the unique needs of customers belonging to diverse markets are fully understood and met (Anderson, Fornell, and Lehmann 1994). As a result, marketing practitioners and researchers have been tasked not only with measuring and understanding mobile telecommunication users’ perceptions regarding m-commerce across multiple markets, but also with determining the fundamental factors that drive m-commerce usage across these markets. Hence, a better understanding of cross-national differences can be vital for retailers in formulating informed strategies that can have a significant impact on the success or failure of retailers’ m-commerce businesses.

More recently, a few research findings related to m-commerce have suggested cultural, behavioral, and economic factors as the cause of differences in m-commerce adoption across developed and developing countries. For example, Sultan et al. (2009) empirically tested a mobile technology adoption model in both a developed (U.S.) and a developing (Pakistan) country and found several differences across the two markets. Morgeson et al. (2015) compare customer perceptions in the mobile services industry across developed and emerging economies and found that quality of service provided has a greater influence on satisfaction in

developed markets compared to developing markets, while the effect of perceived value on satisfaction is weaker for developed markets compared with developing economies. Similarly, Aksoy et al. (2013) explored the link between satisfaction and loyalty in the mobile telecommunications context across eight different countries. Their results reveal that the impact of satisfaction on loyalty depends on cultural differences. However, we still lack proper understanding about key factors and their differential effects on motivating customers to use m-commerce across countries that are at different stages of m-commerce readiness.

The premise on which this study proceeds is that in addition to cultural differences, people at different adoption/readiness stages may exhibit different behaviors (Taylor and Todd 1995; Ashraf et al. 2014). By exploring the intricate relationship between two key drivers of m-commerce usage (i.e., ubiquity and habit) across culturally different countries where individuals are also at different m-commerce readiness stages, we hope to provide new insights that would help international retailers to optimize the effectiveness and appropriateness of their process strategy to foster m-commerce usage. In doing so, we explore the individual and interactive effects of ubiquity and habit on intention and actual m-commerce usage across Australia, U.S., India, and Pakistan. Exploring the direct effect of habit may not be enlightening as to how habits and ubiquity relate; however, an interaction between ubiquity and habit can certainly provide better understanding of the intricate relationship between these two variables.

Based on the literature review, a research model is developed as shown in Figure 1. The model shows that habit and ubiquity directly influence consumers' intentions and actual m-commerce usage behaviors. Besides having a direct effect, habit moderates the relationship between ubiquity and intention to use m-commerce. The model adds the control variable of individualism, collectivism, ambiguity, risk, age, gender, and Internet plan.

***** Insert Figure 1 *****

Ubiquity

The past decade has seen a major generational shift in communication technology. From mobile phones to smartphones and from desktop computers to laptops and tablets, the ubiquity of devices and the concept of ubiquitous consumption has expanded significantly from its infancy. Clarke (2001) suggested that the proliferation of mobile devices was creating opportunities for e-commerce to become m-commerce. He identified four dimensions that would drive the uptake and expansion of m-commerce: ubiquity, convenience, localization, and personalization. However, it was the ubiquity of the devices that allowed an omnipresence of information and accessibility. Cox (2004) extended the concept of ubiquity to the consumer paradigm by introducing the term ‘ubiquitous consumption’ (UC). In this respect, he defined UC as “the ability to access and consume goods and services anytime and anyplace” (p 21). More recently, Okazaki and Mendez (2013a) conceptualized ubiquity as a multi-dimensional construct consisting of continuity, immediacy, portability, and searchability dimensions.

***** Insert Table 1 *****

The ubiquitous nature of m-commerce provides convenience and accessibility to consumers as it allows them to engage in commerce anytime, anywhere (Okazaki and Mendez 2013a). This anytime/anyplace concept was used by Kleijnen, Ruyter, and Wetzels (2007) to determine that the ‘always on’ time convenience of mobile channels is the driving force behind the adoption of m-commerce. Because of this, ubiquity has been touted as one of the most important characteristics of m-commerce (Shankar and Balasubramanian 2009; Okazaki and Mendez 2013a). A number of studies have shown ubiquity as a key factor influencing consumers’ decision making regarding wireless technology (Kim and Garrison 2009), mobile advertising (Gao, Rau, and Salvendy 2009), mobile devices (Muk 2007; Okazaki, Li, and Hirose 2009), and m-commerce (Ko, Kim, and Lee 2009). For example, Zhou (2012) shows

that ubiquity has a positive influence on trust and flow, both of which subsequently determine intended and actual mobile banking usage.

Lee and Park (2006) argue that the ubiquitous nature of mobile Internet (i.e., localization and instant connectivity) is the primary antecedent of perceived attitude towards m-commerce. Okazaki and Mendez (2013b) conceptualized the ubiquitous nature of m-commerce as the ease with which it allows consumers to shop (portability) and its usefulness (simultaneity, speed, and searchability). Their study results reveal that ubiquity (ease of use and usefulness) positively influences consumers' perceptions of m-commerce convenience. Ubiquity has also been found to have a positive influence on m-commerce's perceived value (Ko et al. 2009) and consumer flow experience (Okazaki and Mendez, 2013a). Hence, m-commerce has the potential to influence consumer behaviors across a 'space-time matrix' (Balasubramanian, Peterson, and Jarvenpaa 2002). As such, we propose the following hypothesis:

H1: Ubiquity will have a direct, positive effect on consumers' intention to use m-commerce (H1a) and actual m-commerce usage (H1b).

Habit

Habit has been defined as the extent to which people tend to perform behaviors automatically because of learning (Limayem, Hirt, and Cheung 2007). Habit is a perceptual construct that reflects the results of prior experiences (Venkatesh et al. 2012). That is, routinized behaviors have been shown to form habits (Shah, Kumar, and Kim 2014). Overall, the m-shopping habit can be viewed as "an automatic behavioral response that is triggered by a situational stimulus without a cognitive analysis process due to the learned association between the shopping behavior and satisfactory results" (Chiu, Lai, and Chang 2012, p. 837). Conceptualizing habit this way has relatively little conceptual overlap with intentions, and

may thus provide additional explanatory power for m-commerce usage (Limayem et al. 2007; Venkatesh et al. 2012).

There is a large body of research that indicates that habit is critical to attitude development and actual usage (Ouellette and Wood 1998). For example, habit has been shown to influence attitude, and the resulting attitudinal change is what then influences behavioral intent (Triandis, 1971). It is the repeated decision-making that forms habit which, in turn, drives intention and actual behavior (Aarts, Verplanken, and Van Knippenberg 1998). Interestingly, habit has been found to have a more pronounced effect on behavioral intentions than attitudes and social norms (Verplanken et al. 1998). Consumers' shopping habits have also been shown to play an important role in their choice of traditional or modern retail formats (Maruyama and Wu 2014). In a consumer setting, anywhere between 40-60% of consumer repeat purchases have been attributed to habitual decision making (Beatty and Smith 1987). From the extant literature, it is conceivable that habit influences intention and actual behavior.

Since mobile devices are an integral part of individuals' routines, they are more likely to become accustomed to mobile services (e.g., engaging in commerce) and to incorporate them as a part of their habitual behaviors (Wang et al. 2015). In the case of m-commerce, people generally use smartphones to perform frequent, repetitive, functions on a daily basis (Wagner 2001). By performing these actions over and over, they develop new patterns of behavior and acquire habits that are tied to the immediacy afforded by the technology. Once a behavior has become a habit, it becomes automatic and is carried out without thinking (Limayem, Hirt, and Cheung 2007; Limayem and Hirt 2003).

Recent research has shown that as consumers become more accustomed to technology, their use of the technology increases (Wang et al. 2015). Kim, Wang, and Malthouse (2015) found that repeated use of the m-commerce applications (high habit strength) leads to

increases in future m-commerce spending. Lin and Wang (2006) developed and validated an m-commerce customer loyalty model. Their study results reveal that habit is the strongest predictor of customers' loyalty towards an m-commerce website. Habit has also been found to have a significant positive effect on consumers' intentions to use digital data services (mobile service), their continued use of a website (Gefen 2003), their actual usage (Venkatesh et al. 2012), and firms' overall performance (Shah et al. 2014). Therefore, we propose the following hypothesis:

H2: Habit will have a direct, positive effect on consumers' intention to use m-commerce (H2a) and actual m-commerce usage (H2b).

Differential Effects of Ubiquity and Habit

While perceived ubiquity and habit are expected to have an effect on intended and actual behavior, the effect may vary as the adoption of mobile services does not occur uniformly around the globe. Recent international standardization/adaption literature proposes that depending on the stage of product/technology adoption in the home and host countries, multinational corporations must standardize/customize their marketing strategies and value propositions accordingly. As such, consumers may be at very different stages of m-commerce readiness; therefore, the importance of the two key determinants – ubiquity and habit – may vary depending on the stage of m-commerce readiness. For example, past research has shown that in the early stages of technology adoption, the importance of perceived ease of use is higher, but its importance significantly diminishes in the post-adoption stage (Adams, Nelson, and Todd 1992). Results from Ashraf et al.'s (2014) study reveal that perceived usefulness has a stronger influence on attitude and subsequent behavior for users who are at an advanced e-commerce adoption stage, whereas those at early stages focuses more on ease of use. Comparing the behavioral determinants of experienced and inexperienced IT users, Taylor and Todd (1995) found that the direct determinants of behavioral intentions differ across the

two groups. Similarly, results from Lam and Shankar's (2014) study show that the effect of perceived value on mobile device brand loyalty is more positive for users who are at an early stage of mobile device adoption, whereas the effect of brand satisfaction on mobile device brand loyalty is more positive for users who are at an advanced stage of adoption.

The aforementioned studies provided the basis for our hypothesis that the importance of ubiquity and habit—two key drivers of m-commerce usage behavior—may vary according to the stage of m-commerce readiness. The concept of changed behavior due to device ubiquity and habitual decision making is illustrated by Wang et al.'s (2015) study involving an Internet-based grocery retailer. Their findings show that spending behaviors change as a result of m-commerce adoption. Specifically, as consumers become more accustomed to m-services, their increased familiarity (i.e., habit) has a positive influence on the overall use of m-commerce. Not only does their order rate, or frequency, increase, so does their order size. Essentially, the ubiquity and convenience provided by technology allows people to incorporate m-commerce into their habitual routines. However, once the consumer moves along the adoption continuum from an early to advanced stage, the continued use of the adopted service will commit the action to habit (Chiu, Hsu, Lai, and Chang 2012; Limayem and Cheung 2008). This development of habitual patterns may influence intended and actual usage of m-commerce services more strongly for customers who are at an advanced readiness stage (Limayem et al. 2007; Limayem and Hirt 2003).

Research has shown that once a behavior has become a habit (i.e., people have gained experience with the passage of time), people visit websites without considering the costs and benefits being offered. In fact, when a habit is formulated, people tend to ignore external information and conscious evaluation (Lin and Wang 2006). Similarly, habit has been shown to have a stronger effect on intended and actual usage for more experienced customers (Venkatesh et al. 2012). In the case of India and Pakistan, m-commerce is still in its infancy.

In other words, customers are still in the trial and experimental stages and are likely to be more concerned with their ability to learn and use m-commerce than using it out of habit. That is, habit strength needs to be at a certain level to influence future behavior (Lankton, Wilson, and Mao 2010). This leads us to hypothesize the following:

H3a-b: Ubiquity will have a stronger direct, positive effect on consumers' (a) intentions to use m-commerce and (b) actual m-commerce usage for consumers who are at an early m-commerce readiness stage than for consumers who are at an advanced m-commerce readiness stage.

H3c-d: Habit will have a stronger direct, positive effect on consumers' (c) intentions to use m-commerce and (d) actual m-commerce usage for consumers who are at an advanced m-commerce readiness stage than for consumers who are at early m-commerce readiness stage.

Habit as a Moderator

Formed habits and repetitive actions have a powerful effect on decision making and behavior. For example, Aarts et al. (1998) showed that the amount of information acquired and utilized before making a decision is reduced with an increase in habit strength. When a behavior is habit-driven, individuals tend not to think much about it (Mittal 1988). Results from Verplanken, Aarts, and Knippenberg's (1997) study reveal that individuals who have not yet developed a habit of performing a behavior (here, travel mode) engage in a more thorough search before making a choice than those who are performing the task more habitually.

The role of habit at different phases of IT usage is elaborated on by Japerson, Carter, and Zmud (2005): "during initial use of an IT feature, individuals most likely engage in active cognitive processing in determining post-adoptive intention or behavior, however, with any repetitive behavior, reflective cognitive processing dissipates over time, leading to non-reflective, routinized behavior" (p. 528). That is, once habit is formulated, it reduces the need for conscious attention and mental effort (Limayem, Hirt, and Cheung 2007). Following this

rationale, it is predicted that in situations where mobile shopping is habit-driven, ubiquity may play little role as habit reduces the need for extensive reasoning and conscious attention (Chiu et al. 2012; Limayem and Cheung 2008).

Similarly, prior research has examined the moderating role of habit. For example, results from Limayem et al.'s (2007) study reveal that habit has a moderating (suppressing) effect on the relationship between intentions and actual IT usage. Chiu et al. (2012) argued that the ability of trust to reduce uncertainty is attenuated as behavior becomes a habit. Their study results reveal that habit reduces the influence of trust on repeat purchase intention. Habit has also been found to have a suppressing effect on the association between IT continuance intention and continuance behavior (Bhattacharjee and Lin 2015). Khalifa and Liu (2007) explored the moderating effect of habit between satisfaction and online repeat purchase intention. They suggest that in cases where online shopping habit is strong, habit should be incorporated in the model as it may provide a better explanation of online repurchase intention.

Drawing from the aforementioned arguments, we postulate that habit, besides having a direct effect on intention to use m-commerce, will moderate the relationship between ubiquity and intention to use m-commerce. Consequently, we summarize the conceptual relationship between ubiquity and habit as follows: if individuals are performing a behavior (e.g., using a smartphone to shop or bank online) out of habit, the predictive power of ubiquity would be weakened. Thus, the more habitually an individual is performing a particular behavior, the fewer cognitive benefits they would consider. Extending to m-commerce usage, this means that habit exerts a moderating (suppressing) effect on the relationship between ubiquity and intention to use m-commerce. According to Limayem, Hirt, and Cheung (2007), a suppresser variable is one that reduces or weakens a true relationship between two variables (here, ubiquity and intention to use m-commerce). Thus we propose the following hypothesis:

H4: Habit will moderate (suppress) the relationship between ubiquity and consumers' intentions to use m-commerce, such that higher levels of habit will have a more pronounced negative influence on the ubiquity-intention relationship.

We used both intention to use and actual usage behavior as indicators of m-commerce success. There is ample research that shows that intention to use predicts actual usage behavior (Davis and Venkatesh 1996; Sykes, Venkatesh, and Gosain 2009). The relationship between intention to use and actual usage has been well explained by the theory of reasoned action (TRA) (Ajzen 1991) and the technology acceptance model (TAM) (Davis 1989; Davis et al. 1989; Pavlou 2003). In particular, strong intention to use has been shown to have a direct and positive effect on actual usage (Limayem and Hirt 2003; Venkatesh, Morris, Davis, and Davis 2003). Based on these arguments, we posit the following hypothesis:

H5: Intention to use m-commerce will have a direct (positive) effect on actual m-commerce usage.

METHODS

Data Collection

Data for the analysis were collected through a professional online consumer panel provider. We obtained responses from 1,013 mobile telecommunication customers using a smartphone in four countries: Australia (271), India (216), U.S. (254), and Pakistan (272). The data collection was done in two stages. In stage one, we administered a questionnaire that included all variables except actual usage behavior. One month later, in stage two, we administered a second questionnaire—using the same consumer panel provider—to the same participants across four countries and we received 812 total responses: Australia (204), India (186), U.S. (210), and Pakistan (212). In the second questionnaire, besides measuring actual usage behavior, we used a shortened format of the original questionnaire to assess the common method bias (Yli-Renko, Autio, and Sapienza 2001). For each construct, we chose

one proxy item that we believed best represented the original overall construct (De Clercq, Thongpapanl, and Dimov 2013; 2015).

Before administering the survey for our main study, we followed the pretest and pilot test procedure recommended by Hult, Hurley, and Knight (2004). Initially, we consulted five academics as expert judges in the marketing and information systems disciplines to assess the items' accuracy in representing corresponding constructs. We provided them with a detailed description of the focal constructs along with the representative items. The pretest was followed by a pilot test of 103 MTurk participants to evaluate the quality of content and reliability of measures. MTurk is an online marketplace where individuals or “workers” seek simple jobs or tasks for small cash incentives. While not perfectly representative of the international population, evidence shows that MTurk samples are not dramatically skewed or biased in comparison with other online and offline survey collection methods (Ashraf and Thongpapanl 2015; Goodman, Cryder, and Cheema 2013). We used MTurk for the pilot test as its respondents are much more demographically varied and diverse, with workers residing in dozens of countries worldwide. This versatility further supports our cause by increasing the generalizability of our pilot test results. The findings from the pretest indicated that the scales used exhibited acceptable psychometric properties in terms of both reliability and validity.

All the variables used are operationalized according to previously validated measurement scales. Except actual usage behavior, we used seven-point Likert-type scales (1 = “strongly disagree” and 7 = “strongly agree”) to record participants' responses. For actual usage behavior, we used a seven-point-Likert scale (1 = “not at all,” and 7 = “several times a day”). For the dependent variables, we adapted measures for behavioral intention from Kleijnen et al. (2007), and actual usage from Limayem and Hirt (2003). For the independent variable ubiquity (which is treated as a multidimensional second-order latent construct), we adapted the measures from Okazaki and Mendez (2013a), whereas we adapted measures for

habit from Venkatesh et al. (2012) and Limayem and Hirt (2003). For control variables, we adapted measures for collectivism-individualism and uncertainty avoidance (i.e., ambiguity and risk) from Sharma (2010) and Tuyet, Thi, Jung, Lantz, and Loeb (2003).

Technology Readiness

Technology readiness has been defined as an individual's readiness to use a new technology and consists of four dimensions: optimism, innovativeness, discomfort, and insecurity. In the context of this study, we define technology readiness as an individual's readiness to use m-commerce. According to Parasuraman (2000), a person with optimism and innovativeness and little discomfort and insecurity towards a new technology is more likely to use it. Optimism reflects a positive view of a technology and allows individuals to believe that technology will provide them more control, flexibility, and efficiency in achieving their goals. Innovativeness reflects one's tendency or inclination to be an early adopter of technology. Discomfort reflects one's feeling of a lack of control and a sense of being overwhelmed by the technology; insecurity reflects one's distrust in technology that it will work properly.

We adapted 13 items (e.g., m-commerce gives people more control over their daily lives; sometimes, you think that m-commerce is not for use by ordinary people; you do not consider it safe giving out a credit card number while using m-commerce) from Parasuraman (2000) and Parasuraman and Colby (2015) TR scale with seven-point Likert scales measuring users' optimism, discomfort, and insecurity towards m-commerce. We excluded the innovativeness dimension of technology readiness as it relates more to the individual's tendency to be an early adopter rather than how the technology is being perceived (Zhu, Nakata, Siyakumar, and Grewal 2007), and we adapted technology readiness scale items to correspond to the objective of the present research. Each dimension of TRI accounts for four to five items. In line with past research, we created a composite readiness index based on averages of each dimension (Westjohn et al. 2009; Walczuch Lemmink, and Streukens 2007).

That is, the final TRI construct is a latent construct with three dimensions. In order to achieve our research objectives, we partitioned the countries into high m-commerce technology readiness and low m-commerce technology readiness stages based on their relative levels of m-commerce readiness (see Table 2).

***** Insert Table 2 *****

Statistical Analysis

We used Partial Least Squares (PLS) modeling to test our structural models. We selected PLS for several reasons. First, PLS structural equation modeling (PLS-SEM) is considered a robust approach with few identification issues, and it minimizes the residual variances of the endogenous constructs (Hair, Ringle, and Sarstedt 2011). Second, researchers have argued in the past that data from customer research often do not satisfy the requirements of multivariate normality (Morgeson et al. 2015). Although the covariance-based structural equation modeling (CB-SEM) and PLS-SEM path modeling procedures differ from a statistical point of view, PLS estimates may represent good proxies of the CB-SEM results if the CB-SEM premises are violated (e.g., assumption of normality) (Fornell and Bookstein 1982; Henseler, Ringle, and Sinkovics 2009; Anderson and Gerbing 1988). That is, relying on the ordinary least square estimation techniques, PLS relaxes the assumption of multivariate normality. Third, past studies have also shown PLS to be robust against inadequacies such as skewness and omission of regressors (omitted variable bias) (Cassel, Hackl, and Westlund 1999). Finally, the PLS-SEM approach has achieved increased popularity in empirical research in international marketing (Ashraf et al. 2014; Henseler et al. 2009; Morgeson et al. 2015).

Per Hair et al.'s (2011) recommendation, we assessed convergent validity using (1) individual item reliability and (2) construct reliability. As Table 3 shows, all AVE scores exceeded the recommended value of .50 (Fornell and Larcker 1981). Similarly, the composite

reliability values for each of the scales used was well above the commonly used cutoff of .70 (Straub, Boudreau, and Gefen 2004), indicating that our measures are reliable.

To assess discriminant validity, we conducted two tests. First, we used the cross-loading method (Chin 1998) and calculated each item's loading on its own construct and its cross-loading on all other constructs. Each item had a higher loading on its intended construct than on its cross-loading with other constructs (see Table A1 in Appendix A for overall model cross-loadings). Second, computing the Fornell–Larcker (1981) criterion, we find that the square root of AVE for each construct was higher than the correlations between it and all other constructs and was greater than .50 for overall and country-specific models. This means that each latent variable shares more variance with its own block of indicators than with the other latent variables; thus, our measures exhibit discriminant validity (see Table 4 for the discriminant validity results for the overall model).

***** Insert Tables 3 and 4 *****

Control Variables

In line with past research in international marketing, we included six control variables: collectivism-individualism, uncertainty avoidance (Sharma 2010; Tuyet et al. 2003), age, gender (Ashraf et al. 2014), and Internet plan (mobile Internet tariff) (Gerpott and Thomas 2014). Even though several dimensions of national culture exist, previous research suggests (cf., Auh, Menguc, Spyropoulou, and Wang 2015; Griffith, Hu, and Ryans 2000) that only the dimensions that are strongly tied to the construct of interest should be incorporated in the nomological network under investigation (thereby satisfying the philosophical goal of parsimony). Research has shown that culture has a significant influence on consumers' behaviors (Dwyer, Mesak, and Hsu 2005; Thompson and Chmura 2015). More importantly, recent studies have provided growing evidence of transitional economies (i.e., markets moving from command to free market economies and from closed to open economies) (Tuyet

et al. 2003). For example, in many South East Asian countries, including India, Vietnam, and China, individuals are moving away from collectivist values and mentality, and are moving towards individualistic values and mentality. Similarly, due to the unique nature of m-commerce (i.e., consumers cannot touch, taste, or feel the product), it is perceived as risky (Shankar et al. 2010). More importantly, India and Pakistan are considered high uncertainty avoidance countries, whereas Australia and U.S. are considered low uncertainty avoidance countries (Hofstede and Michael 1984). Hence, this research conceptualizes collectivism-individualism and uncertainty avoidance—dimensions that are more appropriate to the unique context of m-commerce—as multi-dimensional constructs at the individual level (Sharma 2010) and incorporates them in the model as control variables. We included Internet plan as a control variable because recent research has shown that mobile Internet plan (e.g., fixed and/or variable Internet plan) has a considerable impact on mobile Internet usage levels (Gerpott and Thomas 2014).

Common Method Bias and Measurement Invariance

Since the data collected are cross-sectional and use a single-source method, common method bias may cause spurious relationships among the variables (Podsakoff, MacKenzie, Lee, and Podsakoff 2003). To assess common method bias, we first conducted Harman's single-factor test using exploratory factor analysis. The results across four countries revealed that first factor (all combined = 12%; Australia = 11%; U.S. = 14%; India = 14%; Pakistan = 13%) did not account for the majority of the variance in the data, and was well below the cut-off point of 30% (Harman 1976). Second, following prior research (Yli-Renko et al. 2001), we assessed common method bias by administering a follow-up study four weeks after the initial one. In the follow-up survey, a shortened format of the original questionnaire was used: for each construct, we chose one proxy item that we believed best represented the original overall construct (De Clercq et al. 2013; 2015). The results showed positive and significant

correlations between the original and follow-up items (see Table B1 in Appendix B). The results obtained provide evidence contrary to the presence of common method bias (De Clercq et al. 2013; 2015; Yli-Renko et al. 2001).

Finally, we assessed CMB using an approach described by Liang et al. (2007). According to Liang et al. (2007, p. 87), “if the method factor loadings are insignificant and the indicators’ substantive variances are substantially greater than their method variances, we can conclude that common method bias is unlikely to be a serious concern.” We assessed CMB for our overall model (i.e., the four-construct model with $n = 812$ and with the m-commerce ubiquity being treated as a second-order latent construct). The results in Table B2 (Appendix B) revealed that only 5 out of 44 of the method factor loadings were statistically significant. Moreover, the indicators’ substantive variances (average of 0.825) are substantially greater than their method variances (average of 0.006). The ratios of the substantive variances to method variances are 173:1. Given the small magnitude and insignificance of the method variance, we conclude that common method bias is unlikely to be a serious concern for this study.

Similarly, due to the cross-national nature of our research, measurement invariance (i.e., the construct measures are invariant across groups) can be a problem. To ensure that measurement variance is not an issue in our study, and in line with past international marketing research (Morgeson et al. 2015), we used CB-SEM to assess factor loadings across all four countries (see Table A1 in Appendix A). Of 200 factor loadings, only six (3%) were below the threshold of .70. Moreover, the factor loadings for the same construct across four countries were more or less the same. Finally, we tested for factorial invariance using confirmatory factor analysis. Specifically, we tested factorial invariance using a procedure recommended by Byrne, Shavelson, and Muthén (1989) and by Steenkamp, Jan-Benedict, and Baumgartner (1998). The results of the configural invariance analysis showed that the $\chi^2/d.f.$

and other fit indices for all four countries were sufficiently good according to the guidelines, thereby providing evidence that configural invariance exists. Next, we performed a factorial invariance analysis to discern whether the two samples (developed and developing countries) conceptualize the constructs in the same way. The comparison of the unconstrained baseline model and the constrained model reveals that the $\Delta\chi^2$ with $\Delta d.f.$ for the two countries was not significant ($p > .1$) and that the fit statistics (namely, CFI and RMSEA) for the two models were also not very different. Thus, we can state with confidence that the two groups are invariant (Steenkamp et al. 1998; Davidov et al. 2014). In other words, our factor structure is equivalent across the two groups.

Structural Model

In order to test our hypotheses, we first estimated an overall model that included data from all four countries ($n = 812$). Next, we estimated four country-specific structural models. In order to test whether or not the path coefficients differ significantly from zero in the overall and country-specific models, we computed t-values using a nonparametric bootstrap procedure (Henseler, Ringle, and Sinkovics 2009) (see Table 5).

Direct Effects

Behavioral intention. Our results provide strong support for the linkages between ubiquity to behavioral intention and habit to behavioral intention. The corresponding path coefficients are not only significant but are also in the expected directions. More importantly, for overall and country-specific models, ubiquity (Australia $\beta = .12$, t-value = 2.12; U.S. $\beta = .19$, t-value = 2.71; India $\beta = .51$, t-value = 6.17; Pakistan $\beta = .36$, t-value = 4.96) and habit (Australia $\beta = .68$, t-value = 16.01; U.S. $\beta = .54$, t-value = 9.82; India $\beta = .20$, t-value = 3.69; Pakistan $\beta = .15$, t-value = 2.69) are both significant and positive predictors of customers' intention to use m-commerce, hence providing support for H1a and H2a.

Actual m-commerce usage. Our results indicate that behavioral intention is a significant and positive predictor of actual m-commerce usage (Australia $\beta = .36$, t-value = 4.60; U.S. $\beta = .24$, t-value = 2.37; India $\beta = .49$, t-value = 5.45; Pakistan $\beta = .47$, t-value = 5.38), providing support for H5. Areas that diverge from our anticipation are the linkages between ubiquity to actual usage and habit to actual usage. The effect of ubiquity on actual usage is not significant in any country-specific model except the U.S. (Australia $\beta = -.01$, t-value = .01; U.S. $\beta = .11$, t-value = 1.80; India $\beta = .12$, t-value = 1.13; Pakistan $\beta = .06$, t-value = .68), in which the effect is significant but weak. Similarly, the link between habit and actual usage is significant for the Australian and U.S. samples (Australia $\beta = .35$, t-value = 4.31; U.S. $\beta = .33$, t-value = 3.68) but not for the Indian and Pakistani samples (India $\beta = -.01$, t-value = .17; Pakistan $\beta = .03$, t-value = .05). The results do not support H1b and partially support H2b.

Interaction Effects

We posit in H3 that habit would negatively moderate the relationship between ubiquity and intention to use m-commerce for individuals who are at an advanced m-commerce readiness stage. Subsequent analysis showed that Australian and American participants, as compared to Indian and Pakistani participants, use m-commerce in a more habitual manner [$M_{\text{Australia}} = 4.5$ versus $M_{\text{India}} = 4.1$; $t(388) = 2.10$, $p < .05$; $M_{\text{Australia}} = 4.5$ versus $M_{\text{Pakistan}} = 4.1$; $t(414) = 2.11$, $p < .05$; $M_{\text{U.S.}} = 4.6$ versus $M_{\text{India}} = 4.1$; $t(394) = 2.79$, $p < .01$; $M_{\text{U.S.}} = 4.6$ versus $M_{\text{Pakistan}} = 4.1$; $t(420) = 2.88$, $p < .01$]. The results in Table 5 support H4, such that the link between ubiquity and intention to use m-commerce is negatively moderated by habit only in countries where individuals are at an advanced m-commerce readiness stage (Australia $\beta = -.10$, t-value = 1.77; U.S. $\beta = -.10$, t-value = 1.98). Habit does not moderate the relationship between ubiquity and intention to use m-commerce in countries that are at an early m-commerce readiness stage (India $\beta = -.08$, t-value = 1.49; Pakistan $\beta = -.07$, t-value = 1.52).

***** Insert Table 5 *****

Our results reveal that the variance explained (R^2) in the endogenous variables are generally high and acceptable, although they vary across specific country models (see Table 5). For behavioral intention, the R^2 ranges from 45% (Pakistan) to 62% (U.S.). However, the R^2 value for actual usage varies more widely, from 23% (Pakistan) to 47% (Australia). This indicates that, at least for m-commerce customers in Pakistan, actual usage is determined by factors beyond those identified in our framework.

Finally, we calculated Stone–Geisser Q2 values using a blindfolding procedure. Stone–Geisser Q2 provides a gauge for the predictive relevance of the path models for a particular reflective endogenous latent construct (Henseler et al. 2009). A Q2 value greater than zero is indicative of predictive relevance. Table 5 shows that all Q2 values are greater than zero, indicating satisfactory predictive relevance of the endogenous constructs.

Multigroup Analysis (PLS-MGA) to Test Country-Specific Differences

To test our hypotheses related to differences in the importance of factors (strength of path estimates) across different countries, we used PLS-MGA to analyze differences in country-specific path estimates. A PLS-MGA is a non-parametric significance test that builds on partial least squares bootstrapping results. We predicted that in countries where individuals are at an advanced m-commerce readiness stage, the effect of habit on individuals' intention to use m-commerce and actual usage will be stronger, whereas the effect of ubiquity on individuals' intention to use m-commerce and actual usage would be stronger in countries where individuals are at an early m-commerce readiness stage.

Our results show that the effect of ubiquity on intention to use was numerically larger in the countries where individuals are at a low m-commerce readiness stage (Effect size_{India} = .36; Effect size_{Pakistan} = .19) than in countries where individuals are at an advanced m-commerce readiness stage (Effect size_{Australia} = .03; Effect size_{U.S} = .05). More importantly,

these differences are also statistically significant (see Table 6 for multi-group analysis results and Table 7 for effect sizes). Furthermore, we found that the effect of habit on intention to use m-commerce was not only stronger in countries where individuals are at an advanced m-commerce readiness stage (Effect size_{Australia} = .92; Effect size_{U.S} = .52) compared with countries where individuals are at a low m-commerce readiness stage (Effect size_{India} = .08; Effect size_{Pakistan} = .04), but these difference are statistically significant, providing support for H3a and H3c.

Contrary to our expectations, the results in Table 6 show that the effect of ubiquity on actual usage is not statistically stronger in countries where individuals are at a low m-readiness stage (Effect size_{Australia} = .00; Effect size_{U.S} = .02; Effect size_{India} = .10; Effect size_{Pakistan} = .03). However, the effect of habit on actual usage is significantly stronger in countries where individuals are at an advanced m-commerce readiness stage (Effect size_{Australia} = .10; Effect size_{U.S} = .08) compared with countries where individuals are at a low m-commerce readiness stage (Effect size_{India} = .00; Effect size_{Pakistan} = .00). Thus, the results do not support H3b, but support H3d.

***** Insert Tables 6 and 7 *****

Finally, our results show that individualism has a positive significant effect on intention to use m-commerce across all four countries (Australia β = .12, t-value = 2.32; U.S. β = .11, t-value = 1.87; India β = .14, t-value = 2.17; Pakistan β = .11, t-value = 1.72), whereas collectivism positively influenced intention to use only in India and Pakistan (India β = .13, t-value = 2.27; Pakistan β = .15, t-value = 2.50). Similarly, Internet plan has a positive significant influence on intention to use m-commerce for consumers in Australia and U.S. (Australia β = .11, t-value = 1.72; U.S. β = .10, t-value = 2.08). This finding indicates that individuals using flat rate plans (i.e., individuals pay once at the beginning of the month and use unlimited or an allowable amount of Internet), as compared to individuals using some

variant of usage-dependent pricing schemes, are more likely to use m-commerce. The flat rate pricing model is more commonly adopted in the developed world, whereas variable pricing models are more prevalent in developing countries (Gerpott and Thomas 2014). Our data also indicates that more than 80% of smartphone users in the Australia and U.S. samples use flat rate plans.

DISCUSSION

This research provides important and timely contributions to both international marketing theory and practice. In this study, we explore and compare m-commerce usage behaviors of customers in Australia, U.S., India, and Pakistan. Our findings provide a wealth of insights into the similarities and differences among consumers in these different markets—that are not only culturally different but are at different stages of m-commerce readiness—regarding key drivers of m-commerce usage behavior. In particular, four out of six links in the research model differed across the two samples (early versus advanced m-commerce readiness stages). Our study findings have several important theoretical and practical implications for international researchers and practitioners.

Theoretical Implications

Current research on m-commerce usage across nations is rather limited and inconclusive. In this context, support for the key factors that influence m-commerce usage remains equivocal (Aksoy et al. 2013; Morgeson et al. 2015). This is primarily due to the limited applicability of Western developed theory and theoretical interrelationships between key m-commerce facilitating factors and m-commerce usage behaviors to different national markets (Ashraf et al. 2014). Moreover, research into factors that affect m-commerce usage in developing countries is mostly based on assumptions about contextual variables—technology readiness stage, customer characteristics, etc.—that might play a very different role in the developing countries' context. Similarly, from a practical perspective, the implementation of

m-commerce in developing countries cannot be modelled on the Western experience (Ashraf et al. 2014; Calantone, Griffith, and Yalcinkaya 2006). Hence, the success of a product/technology across different countries depends on the extent to which there is a fit between the environmental imperatives and the value that the product/technology offers.

Our findings contribute to international marketing theory by providing insights into key drivers of m-commerce usage behavior among various markets. For example, the effect of ubiquity on intention to use m-commerce was significantly greater for consumers who are at an early readiness stage compared to consumers who are at an advanced readiness stage. In contrast, we found habit to be a significantly stronger predictor of intention to use m-commerce and actual m-commerce usage for consumers who are at an advanced readiness stage compared to an early readiness stage. In doing so, our research not only furthers Lam and Shankar's (2014) findings but it also answers the call by Okazaki and Mendez (2013a) to investigate the effect of ubiquity on consumers' intentions to use m-commerce and actual m-commerce usage across different countries.

Second, the results regarding the influence of habit in previous international marketing and e-commerce studies have been mixed, either with significant (Venkatesh et al. 2012; Limayem and Hirt 2003) or insignificant (Orbell et al. 2001; Lankton, Wilson, and Mao 2010) influence on intention and actual behavior. Because little common ground exists among the international marketing and electronic commerce researchers regarding the role of habit in influencing technology usage behavior, this study clarifies when and why habit and ubiquity influence m-commerce usage behavior. Unlike past research, we challenge the role of ubiquity as a key driver of m-commerce usage and propose habit as an alternative mechanism and key driver of behavior. In this study, rather than equating country with the m-commerce readiness stage, we distinguish m-commerce customers into two distinct groups: (1) early m-commerce readiness stage (India and Pakistan) and (2) advanced m-commerce readiness stage

(Australia and U.S.) by explicitly measuring customers' readiness towards m-commerce at the individual level. Our findings reveal that the effect of habit and ubiquity on intention and actual m-commerce usage behavior may be situation-dependent. Hence, international marketing researchers should consider the possibility that ubiquity and habit may be better studied in the context of m-commerce depending on the readiness stage.

Another major theoretical contribution of this work is our theorization of habit as a moderator of the ubiquity-intention relationship. Our results show that the stronger the habit, the lesser the predictive power of ubiquity on intention to use m-commerce. Our findings further previous research by showing that habit, besides reducing the strength of intention to predict continuance usage (Limayem, Hirt, and Cheung 2007; Limayem and Cheung 2008), may also reduce the influence of ubiquity on intention to use m-commerce. That is, the strength of ubiquity to predict usage intention is weakened by a high level of habit. We argue that ubiquity may not be the only key predictor of m-commerce usage.

Finally, in line with Sharma (2010), rather than treating individualism-collectivism and uncertainty avoidance as monolithic constructs, we conceptualize them as four dimensions (i.e., individualism, collectivism, ambiguity, and risk) and include them in our model as control variables. In doing so, we provide two individual effects of each construct and enhance our conceptual and empirical understanding of the phenomenon. Our findings contradict the mainstream view established in the international marketing literature. Unlike past research that has equated Australia and U.S. with individualistic cultures and India and Pakistan with collectivist cultures, our results show individualism to be a significant predictor of intention to use m-commerce across four countries. These unexpected findings suggest that the economic transition in India and Pakistan has influenced consumers' behaviors, which in turn has led to the temporal and/or spatial coexistence of individualism and collectivism. This suggests that when transitional economies have achieved a certain level of development,

consumers from these economies such as India and Pakistan might have certain behaviors similar to those of consumers from more advanced economies, at least in the context of m-commerce. Our findings also deviate from previous international marketing findings regarding the effect of uncertainty avoidance on e-commerce usage. Our results show that uncertainty avoidance (ambiguity and risk) has no significant influence on users' intentions and actual m-commerce usage across all four countries.

Practical Implications

In line with international marketing literature that argues that similarities between customer characteristics and product adoption stage accommodates the standardization of marketing efforts, whereas dissimilarities require the adaptation of marketing programs components (Katsikeas et al. 2006; Theodosiou and Katsikeas 2001), our results reveal that customers in India and Pakistan are somewhat equally familiar with m-commerce and exhibit reasonably similar usage behavior (i.e., early m-commerce readiness stage), whereas customers in Australia and U.S. are at about the same m-commerce readiness stage (i.e., advance m-commerce readiness stage). That is, m-retailers can have standardized marketing programs within the developing countries (India and Pakistan) and developed countries (Australia and U.S.). However, customers in India and Pakistan are at very different stages of m-commerce readiness when compared to Australia and U.S. due in part to m-commerce demand patterns and usage knowledge, and thus m-retailers have to adapt their marketing strategies to facilitate the local market conditions.

This study furthers recent research on appropriateness of international marketing strategy with respect to standardization vs. adaptation (Katsikeas et al. 2006). In particular, our results offer clear evidence that depending on the stage of m-commerce readiness, users in developed and developing nations assign greater importance to different factors, suggesting that a simple blanketed standardization strategy may not perform well. Practitioners and m-

retailers operating in developed countries such as Australia and U.S. should keep in mind that because customers have already adopted m-commerce and have been using it for several years, resources should be directed towards building habit and away from highlighting m-commerce benefits (i.e., usefulness and ease of use). Our finding is conceptually in line with Lam and Shankar's (2014) finding that mobile users who are at a late adoption stage prefer satisficing strategies to perceived value. For example, m-retailers targeting users in Australia and U.S. should emphasize the application of mobile Internet in different contexts and occasions in order to potentially increase the habitual use of mobile Internet. In order to encourage customers to repeatedly use their smartphones to access m-retailers' websites, m-retailers should provide different contests, promotions, coupons, and run advertising campaigns through mobile channels.

Similarly, m-retailers operating in countries similar to Australia and U.S. should increase their presence in mobile storefronts as mobile channels provide convenient access, and can therefore increase m-shopping occurrences. Once customers have started using mobile channels to shop out of habit, research has shown that they are not only more likely to re-purchase using this channel, but their spending is also more likely to increase (Wang et al. 2015). In fact, leveraging customer habits and allocating resources accordingly has been shown to positively affect firms' performance by up to \$53.5 million (Shah et al. 2014).

Practitioners and m-retailers operating in developing countries such as India and Pakistan should be mindful that m-commerce customers in these countries are at an early readiness stage, and therefore are likely to be more concerned with their ability to learn and use m-commerce than developing habits. In particular, m-retailers should focus more on making the m-commerce experience as easy as possible and highlighting its benefits. This finding is consistent with Lam and Shankar's (2014) study that shows that early adopters of mobile devices are more concerned with the perceived value—benefits that the brand can

offer—in their intention to repurchase the brand. For example, m-retailers can communicate the personal, interactive, and immediate shopping experience that m-commerce can provide to customers. Through promotional campaigns, retailers can reinforce the acceptance and use of m-commerce by creating awareness and emphasizing the usefulness and ease with which customers can fulfill their shopping goals, namely productivity gains, faster shopping, and anywhere/anytime access. Mobile website developers should focus more on developing websites that are easy to navigate, along with instructions to help guide customers to easily fulfill their tasks. That is, mobile websites can guide customers who are at an early m-commerce readiness stage through a shopping experience that builds their confidence.

International m-commerce managers who are investing ever-increasing amounts of resources in their efforts to attract customers in countries that are at an early readiness stage should focus more on providing a personalized experience (Thongpapanl and Ashraf 2011). Personalization will not only overcome some limitations of mobile devices such as limited screen size and functionality (Wang et al. 2015), but will also empower customers to alter the interaction and relationship to suit their personal preferences depending on their level of readiness (Thongpapanl and Ashraf 2011). This would help customers become accustomed to m-commerce, causing them to be more likely to adopt this channel for future purchases and transactions since it has been incorporated as part of their habitual behavior (Venkatesh et al. 2012).

Limitations and Future Research

Although this study makes a significant contribution to the international marketing and m-commerce literature and is an important step towards understanding the intricate relationships between two key m-commerce usage drivers (ubiquity and habit) across different countries (e.g., developing/developed, small/large, culturally heterogeneous), the field is only beginning to develop a unified theoretical framework for understanding m-

commerce adoption and usage behavior in diverse countries. Just like any other research, we were not able to travel in all directions, and as such, this research suffers from certain limitations that should be noted.

First, even though Australia and U.S. and India and Pakistan are good representatives of developed and developing countries, respectively, the sample is limited as it is only comprised of four countries and can provide little understanding compared to what one may observe if comparing a larger assortment of countries. Future research should replicate the findings of this study in other countries as suggested by Okazaki and Mendez (2013a) and Venkatesh et al. (2012).

Second, unlike past studies, this study directly measures consumers' m-commerce readiness using Parasuraman (2000) and Parasuraman and Colby's (2015) TR scale; however, we did not directly test the influence of m-commerce readiness on consumer beliefs and/or behavior. Therefore, future studies measuring and including the direct influence of m-commerce readiness on intention and actual usage behavior could bridge this knowledge gap.

Third, we conceptualized ubiquity as a multidimensional second order latent construct in this research. Future research can advance our findings by exploring the individual effects of ubiquity's dimensions (continuity, immediacy, portability, searchability) on m-commerce usage behaviors across different countries.

Fourth, given the cross-sectional design of the study, the relationships among ubiquity, habit, usage intention, and actual usage behavior explored in this research need further examination and validation. For example, in our cross-sectional survey we were not able to capture the changing m-commerce shopping behaviors or habit formation of customers in low m-commerce readiness countries. Future research should take a longitudinal perspective as well as consider other countries with varying levels of m-commerce readiness in their studies to convincingly determine these crucial relationships.

Finally, although this study makes a significant contribution to the international marketing and m-retailing literatures and provides new insights, the field is only beginning to develop a unified theoretical framework for understanding m-commerce usage across diverse countries. Our focus in this study is to explore and provide better understanding of the role of two key factors (ubiquity and habit) that can motivate users/customers who are at different stages of readiness to engage in m-commerce. However, future researchers should explore the substitute and/or complementary role of m-commerce alongside both transactional and non-transactional activities offered by omni-channel retailers. That is, this study opens the avenue for future researchers to explore the non-transactional role of m-commerce in an omni-channel environment, and the crucial role of service fulfillment in the m-commerce context across different countries.

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