Understanding Millennials Mobile Shopping Behaviors: An Implication for Insurance Industry

Brandon Brown, University of South Carolina, USA
Jiyeon Kim, University of South Carolina, USA

ABSTRACT

Mobile commerce is rapidly growing, providing financial institutions increasing opportunities to attract customers and build relationships. Although Millennials have the largest buying power and are constantly using their mobile devices to shop, certain financial institutions have not been successful in taking advantage of m-commerce in building relationships with these consumers. Thus, this study investigates Millennials’ use of mobile shopping and intention to purchase using the mobile devices while taking into consideration of perceived financial risks, social influence, convenience, and satisfaction. The findings will provide insurance industry with two major implications as to 1) how can a salesperson interpret Millennials’ consumer behavior to participate in the organization’s pursuit of customer engagement and 2) how can a salesperson harness the capabilities of mobile shopping to create value. The findings of this study indicate that the perceived usefulness and ease-of-use influence attitude toward using mobile device for shopping. Perceived enjoyment is not a significant factor affecting attitude. Attitude is a strong predictor of the intention to use mobile devices, indirectly influencing the intention to purchase using mobile devices. Our results found that social influence didn’t show a significant effect towards the intention to use mobile devices for shopping but it has a significant influence on the purchase intention using mobile devices. Perceived financial risk appeared not to have an effect on the intention to use mobile devices for shopping. The results showed that the convenience is a strong predictor of purchase intention using mobile devices.

Keywords: Mobile commerce, Millennials, Mobile shopping

INTRODUCTION

In recent years, a growing number of consumers are using mobile devices for shopping. In accordance with Pascoe (2002), the rapid development of modern wireless communication technology and high penetration rate of the Internet are promoting mobile commerce (Lee H. J., 2016). Combining the portability of mobile devices and wireless communications, mobile commerce provides users the benefits of retrieving rich and current information via the Internet anywhere and anytime (Lee, Cheng, & Cheng, 2013). According to Oracle Financial Services (2010), it is expected that by 2015, Millennials will have $2.45 trillion in spending power, making them an important consumer group. However, young people are generally considered to be particularly attractive customers in the banking and financial services sector due to their potential to grow their assets and make investments (Lewis & Bingham, 1991; Joseforwicz, 2003) (Foscht, Schloffer, Maloles III, & Chia, 2009). If we look at the immediate financial value of an initial customer relationship in the youth market, it is relatively low compared to that of adults because young people generally have low disposable income. However, young people have relatively high discretionary income and purchasing power (Foscht, Schloffer, Maloles III, & Chia, 2009). Thus, by
attracting young customers, banks and financial services can achieve more revenue on the one hand; and on the other hand, they can profit from these loyal customers in the future by establishing a customer relationship with the opportunity for cross-selling (Foscht, Schloffer, Maloles III, & Chia, 2009). The older Millennials are experiencing various major life stage benchmarks and they continue to be in a period of firsts and significant changes-starting to live independent of their parents, getting into their career, starting a family, and making their first significant purchases (e.g. homes). However, purchasing patterns for insurance by millennials appears relatively low - only 64% of them have car insurance, 10% have homeowners’ insurance and 13% have renters’ insurance, according to a survey conducted by the Princeton Survey Research Associates International (Jaafari, 2014). Millennials largely distrust companies’ sales pitch, actively know when they’re being advertised to, and as a result are more likely to not buy the product that's being advertised by company. Rather, they prefer to discover products and services themselves and find answers to solutions, yet, in some areas, they don’t know enough to find the answers they need. And therein lays the problem for insurance companies.

If insurance companies can find the effective communication medium (e.g., mobile communication devices) that Millennials can be reached and build trusty personal relationship, hence provide them with innovative product information and the adequate cost, these customers can bring huge profit to the companies in this industry. Selecting the appropriate medium through which to reach younger generation consumers (e.g., Millennial Generation) has proven challenging in many aspects due to their complex media habit of using a wide variety of media (Hershatter & Epstein, 2010; Kinley et al., 2010) (Smith, 2011). This generation is very connected to its friends and acquaintances; it can communicate at any time, from anywhere, and in various forms. In addition, having grown up in an even more media-saturated, brand-conscious world than their parents, they respond to ads differently (Smith, 2011). Thus, the same marketing formulas that resonated with older generations would not work well for those generations because they are skeptical of traditional mass media advertising (Cone, Inc., 2006; Lim, Lim, & Heinrichs, 2014). Thus, claimed that it is critical to find effective communication channels to reach them to attract these potentially lucrative customers (Smith, 2011).

Thus, this study investigates use of mobile shopping and intention to purchase using the mobile devices while taking into consideration of perceived financial risks, social influence, convenience, and satisfaction. The findings will provide insurance industry with two major implications as to 1) how can a salesperson interpret Millennials’ consumer behavior to participate in the organization’s pursuit of customer engagement and 2) how can a salesperson harness the capabilities of mobile shopping to create value.

THEORITICAL BACKGROUND

Theory of Reasoned Action

Theory of Reasoned Action (TRA) has been extensively applied to explain user behavior regarding adoption of technology. TRA proposes that an individual’s actual behavior is determined by the person’s intention to perform the behavior, and this intention is influenced by the individual’s attitude. According to Ajzen and Fishbein (1980), attitude towards behavior is defined as the individual’s general feeling of favorableness and unfavorableness for that behavior. A person’s attitude toward a behavior is largely determined by salient beliefs about the consequences of that behavior and the evaluation of the desirability of the consequences. In the current investigation, the favorable (unfavorable) disposition and response toward m-commerce (and other channels) are indicators of a positive (negative) attitude (Maity, 2010). Theory of Reasoned Action is based on the premise that an individual’s behavior is determined by
the intention to perform the behavior (Moore & Benbasat, 1996). An individual’s behavior can be explained by his or her behavioral intention, which is jointly influenced by attitude and subjective norms. Attitude refers to an individual’s positive or negative evaluative affect about performing a particular behavior. Subjective norms refer to an individual’s perceptions of other people’s opinions on whether or not he or she should perform a particular behavior (Wang, Lin, & Luarn, 2006). According to Peter and Olson (2005), the result of this reasoned selection process is an intention to engage in the selected behavior, in which that behavioral intention is considered as the best predictor of the authentic behavior (Chandrawati & Lau, 2016).

Technology of Acceptance Model

The Technology Acceptance Model (TAM) developed by Davis (1989) is one of the most influential models for measuring and explaining user acceptance of technologies. Rooted from the Theory of Reasoned Action (TRA) by Fishbein and Ajzen (1975), TAM has investigated the causal relationship between beliefs and attitudinal constructs. Specifically, the model hypothesizes that two beliefs about a new technology, perceived usefulness (PU) and perceived ease of use (PEOU), determine a person’s attitude (ATT) towards using a technology system. A person’s ATT, on the other hand, influence behavioral intention (BI), which, in turn, determines the actual usage behavior (USE). Consequently, both PU and PEOU are the primary determinants among the causal linkage of technology use (Davis, Bagozzi, & Warshaw, 1989). TAM is nowadays adopted across a wide variety of domains, including online shopping (Gefen, Karahanna, & Straub, 2003; O’Cass & Fenech, 2002) and m-shopping (Aldas-Manzano, Ruiz-Mafe, and Sanz-Blas, 2009; Ko, Kim, and Lee, 2009). Therefore, TAM is considered to be an appropriate theoretical framework for measuring m-shopping acceptance after being modified by the integration of additional factors: perceived enjoyment (PE) and trust (TR) in the vendor, whereby the last-mentioned construct has received little attention within the m-shopping context so far (Grob, 2015).

TAM has recently been applied in studies in various areas such as online banking (Chong, 2010; Lin, 2014), wireless technology (Yen, 2010), mobile services (Zarmpou, 2012), Internet banking (Lee, 2009), mobile payment (Kim, 2010; Liebana-Cabanillas, 2014; Schiertz, 2010), and m-commerce (Cho, 2008; Chong, 2012; Chong, 2013; Shih and Chen, 2013; Wei, 2009; Wong and Hsu, 2008). In TAM, two particular beliefs—perceived usefulness and perceived ease of use—are crucial for predicting users’ adoption of new technology. Although TAM has become well-established as a powerful and robust model for the prediction of user acceptance (Zhang, 2012), many researchers (Chong, 2012; Wei, 2009; Wu and Wang, 2005) have suggested that it should be extended with additional constructs, to better explain and predict users’ acceptance behavior. Cho (2008) examined variables influencing perceived usefulness and perceived ease of use by using the original TAM and taking into account several external factors: information, price, service, convenience, technology, promotion, and entertainment.

CONCEPTUAL MODEL AND HYPOTHESES

The conceptual model (Figure 1) has stemmed from Theory of Reasoned Action (TRA) and Technology Acceptance Model (TAM) and their variables to explain the Millennials’ use of mobile commerce. The research model also includes other variables such as social influence, convenience, perceived risk, and satisfaction to explain why Millennials use mobile commerce.
Perceived Usefulness

According to Davis (1989, p.320), Perceived Usefulness (PU) is defined as “the degree to which a person believes that using a particular system would enhance his or her job performance.” PU refers to the utilitarian shopping values (e.g. convenience, price comparisons, infinite choice, and greater information availability offered through the Internet as a distribution channel (Childers 2001; Jih and Lee 2003; Kim 2012). Davis and Venkatesh (1996), found that PU has positive influence on consumers' attitude toward online shopping, and also online shopping intention (Aldhmour, 2016). In the context of mobile shopping (m-shopping), PU might therefore be associated with the ability to shop regardless of place, space and time, or to obtain personalized and context-based information on the spot (Yang and Forney 2013; Wu and Wang 2006). Holmes, Byrne, and Rowley (2014) found that Smartphone users valued the simplicity, convenience and accessibility of m-shopping (Grob, 2015). Wong and Hiew (2005) suggested that the usage of m-commerce is strongly driven by the usefulness of the mobile service (Tsu Wei, 2009). Perceived usefulness and perceived ease of use influence the attitude of individuals towards the use of a particular technology, while attitude and perceived usefulness predict the individual’s behavioral intention to use the technology (Aldas-Manzano, Ruiz-Mafe, & Sanz-Blas, 2009). According to Chong (2013), users appreciate m-commerce only if the find it to be more useful than an alternative such as e-commerce. Rogers (1995), stated that the same conclusion may be derived from Diffusion of Innovation theory, which states the users will accept some innovation only if it offers them some unique advantage compared with existing solutions (Kalinic & Marinkovic, 2015). Gentry and Calantone (2002) have found a significant positive relationship between perceived usefulness and attitude (Wang, 2012). Therefore, we hypothesized that:

\[ H1: \text{Perceived usefulness has a positive effect towards attitude on the use of mobile devices for shopping.} \]
Perceived Ease of Use

Davis (1989 p.320) defined Perceived ease-of-use (PEOU) as ‘the degree to which a person believes that using a particular system would be free of effort’. In addition, Ko, Kim, and Lee (2009) refers PEOU as the level of effort involved in learning to use a technological device properly. PEOU positively influences users’ attitudes towards using Internet (Szajna, 1996; Gefen and Straub, 1997). In terms of m-shopping, PEOU is associated with ease of access to the Internet (Lu and Su, 2009) and ease of navigating through all the features and functions provided by m-shopping services (Wong 2012) and websites (Wu and Wang 2006) (Grob, 2015). For example, someone may find using services on mobile devices tedious and complex due to the constraints of physical features of m-commerce such as its small display screen or difficulty in keying in data. Consequently, m-commerce must be easy-to-use or to learn (Tsu Wei, 2009). Researchers found that PEOU has a strong impact on consumer attitude and/or intention to use new technology in the early stages of adoption, yet its impact will decrease in later stages with increasing experience along with familiarity by the consumer (Grob, 2015). Ease of use is an important factor in predicting attitudes towards technology-based self-service (Davis et al., 1992, Heijden, 2000), whereas complexity, the antithesis of ease of use (Agarwal and Prasad, 1998), reduces willingness to adopt the system (Kim, 2009). Therefore, we hypothesized that:

H2: Perceived ease of use has a positive effect toward attitude on the use of mobile devices for shopping.

According to the previous literature, (Davis, Bagozzi, and Warshaw1989; Venkatesh and Davis1996), PEOU can affect one’s attitude about adopting and/or intention to use technology directly and indirectly through its impacts on both PU and PE, but the impact of PEOU varies over time. Perceived ease of use has also been found to influence information technology and Internet usage indirectly via perceived usefulness (Davis, 1989; Teo, Lim, & Lai, 1999) and perceived enjoyment (Igbaria, Schiffrin, & Wieckowski, 1994; Teo, Lim, & Lai, 1999). Elliot and Fowell (2000) and Pavlou (2003) found perceived ease of use as one of the major consumer factors in e-shopping Web site usage and e-Commerce acceptance. When the technology is perceived as easy to use and less complex to use, then it can positively affect perceived usefulness. A system that is perceived as difficult to use is less likely to be perceived as useful. Similarly, a system that is perceived as difficult to use is less likely to be perceived as enjoyable leading to decreased usage. A system perceived as easy to use can minimize mental anxiety in its use, enhance e-shoppers’ shopping experience, and make the shopping task more enjoyable. Thus, the following hypotheses are presented (Lim, 2008). Therefore, we hypothesized that:

H3: Perceived ease of use has a positive effect toward perceived usefulness on the use of mobile devices for shopping.

H4: Perceived ease of use has a positive effect toward perceived enjoyment of the use of mobile devices for shopping.

Perceived Enjoyment

Hedonic shopping value reflects shopping’s potential entertainment and emotional worth, and can be indicated by the increased arousal, involvement, perceived freedom, escapism, fantasy, and emotive aspects of the shopping experience (Babin et al. 1994; Sorce et al. 2005). Thus, the shopping values are either intrinsic or extrinsic, where the intrinsic hedonic value signifies the motives of enjoyment, fun, and leisure, while the extrinsic utilitarian value is related to the functional attributes of shopping. According to Davis, Bagozzi, and Warshaw (1992, p. 1113), Perceived Enjoyment (PE) is defined as “the extent to which the activity of using the computer is perceived to be enjoyable in its own right, apart from any performance consequences that may be anticipated (Grob, 2015)”. Previous research (e.g., Childers et al.
online shopping has found that shopping hedonic shopping motivation can affect shoppers’ attitudes about online shopping (Peng, 2014). Akhlaq and Ahmed (2014) found that the enjoyment had a positive connection with the usage of web, especially for the sake of entertainment. The hedonic shopping values (e.g. eliciting emotional and pleasure response, social experience, entertainment and gratification) can be offered through the Internet as a shopping medium (Childers et al. 2001; Jih and Lee 2003; Kim et al. 2012). Smartphones are also predestined to create for the consumer a pleasurable and enjoyable shopping experience for consumers on the move. Hillman (2012) found that consumers spend a lot of time using mobile devices browsing for goods and comparing prices to have fun. Thus, PE is expected to have a stronger effect on user attitudes towards hedonic systems because the expressed intent of such systems is to maximize users’ enjoyment or entertainment from their use (Childers et al., 2001). Thus, the attitude towards online shopping can be predicted by enjoyment (Butt, 2016). Hence, we hypothesized that:

\[ H_5: \text{Perceived enjoyment has a positive effect on attitude towards using mobile devices for shopping.} \]

**Attitude**

According to Zeithaml (1988), attitude is defined as degree of favorableness or unfavorableness of a person’s evaluation of a behavior. Attitude takes into consideration the beliefs about the consequences of performing the behavior and of the evaluation of these consequences. Several studies have confirmed the significant effect of attitude towards intention (Korzann, 2003; May, 2005; Taylor and Todd, 1995; Kelly et al. 2006) (Mishra, 2015). According to Fishbein and Ajzen (1975), human behavior is preceded by intentions, which are formed based on the individual’s attitude towards the behavior and on perceived subjective norms. Attitude reflects the individual’s feeling of favorableness or unfavorableness towards performing a behavior. Subjective norms capture the individual’s perceptions of the influence of significant others (e.g., family, peers, authority figures, and media). The positive association between attitude and intention has been supported by numerous research findings (Suki and Ramayah 2010; Al-Rafee and Cronan, 2006). Previous research (McKnight & Chervany 2002) in e-commerce has suggested that attitude plays a crucial role in an individual’s behavioral intention (Wang, 2012). Consumers, who believe that online shopping is an advantageous, develop a positive attitude toward online shopping (Celik and Yilmaz 2011). Understanding the determinants of consumers’ attitude helps predict consumer’s intention. It is suggested that this attitude has a strong, direct, and positive effect on consumers’ intentions to actually use the new technology or system (e.g., use of mobile devices for shopping) (Davis 1993; Van der Heijden, Verhagen, and Creemers 2001). Attitude has long been identified as a cause of intention (Ahn, Ryu, Han 2004). In other words, the more positive consumers' attitude toward online shopping, the higher the intention he/she has to engage in online shopping (Aldhmour, 2016). Therefore, we hypothesized that:

\[ H_6: \text{Attitude toward mobile shopping has a positive effect on the intention to use mobile device for shopping.} \]

**Behavioral Intention**

Intention is conceived as the summary motivation to perform a behavior. Behavioral intentions have been defined as the subjective probability that the individual will engage in the specified behavior. Behavioral intention is the most important determinant of an individual’s actual behavior (Zhang et al. 2012). Zampou et al. (2012) describe it as an individual’s subjective probability that he or she will use mobile services (Kalinic & Marinkovic, 2015). Morwitz & Schmittlein (1992), Purchase intention is a
considered as most apposite item to predict shoppers’ behavior (Mishra, 2015). Research on m-shopping acceptance has already confirmed the attitude–intention relationship (Alda’s-Manzano, Ruiz-Mafe’, and Sanz-Blas 2009; Kim, Ma, and Park 2009; 2012), but has failed to shed a light on the intention–behavior relationship. This is probably due to the fact that the underlying data samples have, so far, not been confirmed by experience in m-shopping. However, with respect to the casual relationship suggested by TAM (Grob, 2015). Hence, we hypothesized that:

\[ \text{H7: Intention to use mobile devices for shopping has a positive effect on the consumer’s purchase intention using mobile devices.} \]

Social Influence

According to Venkatesh, Thong, & Xu (2012), social influence in the consumer context is the extent to which consumers perceive that important others believe they should use a particular technology. The underlying assumption is that individuals tend to consult their social network about new technologies and can be influenced by perceived social pressure of important others (Slade, Dwivedi, Piercy, & Williams, 2015). According to Pederson (2005), users tend to gather information from referent individuals or groups (relatives, workmates, or the media) with a view towards acceptance (San-Martin, Prodanova, & Jimenez, 2015). Subjective norms are considered as the person’s perception that most people who are important to him or her think he should or should not perform the behavior in question (Pedersen, 2005; Gu, 2009). Users tend to gather information from referent individuals or groups (relatives or colleagues) with a view to acceptance through the process of internationalization of referrals opinions (San-Martin, Prodanova, & Jimenez, 2015).

In accordance with Lu (2014), social influence is the equivalence to subjective norm, which is a direct determinant of behavioral intention (Kalinic & Marinkovic, 2015) Fan (2005), revealed that consumers tend to recommend a service to others when they are satisfied with their service, thus referent group’s suggestions are credible sources influencing consumer adoption decisions. Since mobile shopping is presented in a technology-mediated environment and connected via personalized mobile devices, consumers may be cautious about adopting mobile shopping. Thus, they may show a strong tendency to rely on significant others’ influence on the adoption of mobile shopping. This will impact consumers’ intentions to adopt mobile shopping (Yang, 2012). The importance of subjective norms regarding the attitude towards intention to use has been brought up for mobile contexts. In accordance with Schierz (2010), the relevance of group opinions for individual attitude formation increases when users lack reliable information about usage details, as it is the case of shopping of products/services in an early stage of development or diffusion (San-Martin, Prodanova, & Jimenez, 2015). Khalifa and Cheng (2002) also found that social influence had strong effect on consumer intention to use m-commerce (Tsu Wei, 2009). Hence, we hypothesized that:

\[ \text{H8: Social influence has a positive effect on the attitude towards the use of mobile devices for shopping.} \]
\[ \text{H9: Social influence has a positive effect towards the intention to use mobile devices for shopping.} \]
\[ \text{H10: Social influence has a positive effect on purchase intention using mobile devices.} \]

Perceived Risk

Perceived financial risk is a control belief which influences behavior negatively (Malik, Kumra, & Srivastava, 2013). Financial risk can be defined as the insecurity associated with mobile-based monetary transactions (Ghosh & Swaminatha, 2000). Mobile devices tend to be prone to different types of risks like security risk due to device’s infrastructure, the risk due to software application program and the risk in the
network. Consumers perceive high risks in non-traditional shopping formats, such as electronic and mobile shopping. Studies have revealed that the willingness of the consumer to use electronic and m-commerce for financial transactions is negatively affected by the perceived risks. Similarly, perception of loss while transacting through mobile devices will also be high and needs to be explored to study its impact on consumer intention to engage in monetary transactions using mobile phones (Malik, Kumra, & Srivastava, 2013).

Since intention to use a website for transactions involves a certain degree of uncertainty, perceived risk is identified as a deterrent of behavioral intention to use (Wu & Wang, 2005). The adoption of new technologies gets affected if the users subjectively expect that a loss is likely to occur while using the technology (Malik, Kumra, & Srivastava, 2013). Furthermore, previous studies (Faqih, 2011; Qiu & Li, 2008; Yeung & Morris, 2010) have confirmed that perceived risk is an impeding factor for consumers to engage in online shopping and that perceived risk negatively influences the behavioral intention to use online shopping channel for purchase (Faqih, 2013). Chen (2008) found that perceived risk negatively affects consumers’ intention to adopt m-payment (Koenig-Lewis, 2015). Therefore, we hypothesized that:

**H11:** Perceived financial risk has a negative effect toward the intention to use mobile devices for shopping.

**Convenience**

A large part of the convenience of electronic shopping is because of the fact that physical effort required in visiting an electronic store is much less than that in visiting a traditional store. Swaminathan et al. (1999) study found that convenience is the reason for shoppers to buy online (Sethi & Sethi, 2016). Burke (1997) emphasized on the time saving aspect of internet shopping. Convenience in online shopping increases search efficiency through the ability to shop at home, by eliminating such frustrations as fighting traffic and looking for a parking space, and avoiding long checkout lines, while offering simple “click” shopping that eliminates travel to and from a variety of stores. An advantage of m-commerce is offering convenience to customers. M-commerce offers the same convenience as the online shopping but with mobility. According to Michael and Segev (1996), convenience of use is the degree of comfort and ease users feel with a certain system. In m-commerce, it indicates the convenience of searching for information with the fewest number of clicks and includes relevant tools and functions used in the process. Thus, convenience of use assists consumers in searching for information and making a purchase decision. Convenience of use can be measured by the optimization of a product search or a product comparison feature that allows users to view products side by side instead of flipping through many pages (Ham, 2004). A convenient app also provides attractive page layouts, product details, and other relevant information. According to Chiagouris (2000), convenient use of a mobile application enhances the efficiency of shopping applications, maximizing the shopping experience and simplifying mobile shopping procedures. Thus, the convenience of a mobile application will promote a consumer’s decision to buy (Jang, 2015). Therefore, we hypothesized that:

**H12:** Convenience use of mobile shopping has a positive effect towards purchase intention using mobile devices.

**Satisfaction**

Kotler (2000) has defined satisfaction, in the consumer context, as a consumer’s feelings of either pleasure or disappointment resulting from a comparison between the perceived performance of a specific product or service and his or her expectations. Consumers form expectations of the product, vendor, service, and quality of the website that they patronize before engaging in online shopping activities (Ho
and Wu 1999; Jahng et al. 2001; Kim et al. 2001). If expectations are met, customers achieve a high degree of satisfaction, which influences their online shopping attitudes, intentions, decisions, and purchasing activity positively. Consumers usually seek a relationship between their needs and wants and their perceived evaluation (Parker & Mathews 2001). Wang and Liao (2008), use Oliver’s (1981) definition of satisfaction to include the context of use as a psychological or emotional state resulting from a cognitive assessment of the gap between expectations and actual performance (confirmation or disconfirmation). Satisfaction is a relational variable that has been studied in the context of m-commerce (Choi et al., 2008; Yeh and Li 2009; Deng et al., 2010). Satisfaction in the context of m-commerce is the summary of the emotional response (variable intensity) following the mobile commerce activities, and is stimulated by several aspects such as the quality of information, system and service (Agrebi & Jallais, 2015). According to Ranaweera (2005) and Kuo (2009), it has an impact on client purchase intention in an online sales context (San-Martín, Prodanova, & Jimenez, 2015). Hence, we hypothesized that:

**H13:** Satisfaction has a positive effect towards a consumer’s purchase intention using mobile devices.

**METHODS**

**Survey Development**

An online survey was developed with multiple items measuring constructs using seven-point Likert scale. The measurement items for the survey were adopted from previous studies and modified to suit the current study (Groß, 2015; Aldás-Manzano, Ruiz-Mafé, and Sanz-Blas, 2009; Yang, 2012; Jang, 2015; Kalinic & Marinkovic, 2016; Wu and Wang, 2005; San-Martín, Prodanova, and Jiménez, 2015).

**Data Collection and Sample Characteristics**

The current study used a convenience sample of college students in a large south-eastern University in the United States. College Millennials are considered to be an appropriate sample for this study since this study focused on millennials’ consumer behaviors. Participants were asked questions about their mobile shopping behaviors. Of 100 valid responses, 16% were males and 84% were females, ranging from 18 to 29 years old. As for the mobile shopping experience, all respondents had an experience with mobile shopping, and a majority of them had purchased a product/service using mobile.

**Data Analyses and Results**

The IBM SPSS 24 software was used to compute statistical analysis for the current study. To ensure internal consistency of the items in a variable, a reliability test was conducted. Reliability indicates the stability of a measure in a given context. The statistics of Cronbach alpha and item-to-total correlations were undertaken to assess the internal consistency of the instrument. Reliability tests were conducted and all items were above the threshold of .6 except for attitude (.234). Thus, to achieve internal consistency, the question #20 (I think mobile shopping is complicated.) was deleted hence the reliability for attitude has increased to .747, which showed good internal consistency. Pearson Correlation was conducted to check the construct correlation and discriminate validity. Constructs were reasonably correlated with all coefficients being below 0.85, a threshold of multicollinearity, confirming discriminate validity among the constructs.

Regression analyses were conducted to test hypotheses. The effect of perceived usefulness ($β = 0.303, p = .012$), ease-of-use ($β = 0.439, p < .001$), and social influence ($β = 0.396, p < .001$) on the attitude towards using mobile devices for shopping was statistically significant. Hypotheses 3 and 4, perceived
ease of use positively affect perceived usefulness and perceived enjoyment towards the use of using mobile devices for shopping ($\beta = 0.683, p<.001; \beta = 0.670, p<.001$). Hypotheses 6, attitude towards using mobile devices for shopping positively affect the intention to use mobile devices for mobile shopping ($\beta = 0.527, p< .000$). Hypotheses 7, intention to use mobile devices for shopping positively affect the consumer’s purchase intention using mobile devices ($\beta = 0.497, p< .000$). the effect of social influence ($\beta = 0.153, p = .028$) and satisfaction ($\beta = 0.248, p< .005$) positively affect the consumer’s purchase intention using mobile devices. However, perceived enjoyment did have a significant effect on attitude toward mobile shopping ($\beta = 0.153, p = .077$). Neither social influence nor perceive risks appeared to have influence on the intention to use mobile devices for shopping ($\beta = 0.155, p = .078; \beta = -0.103, p = .203$). Convenience was also found to be an insignificant predictors of intention ($\beta = 0.064, p = .414$).

**Table 1: Standardized Coefficients and P-values**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>IV(s)</th>
<th>DV</th>
<th>Beta</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Perceived Usefulness</td>
<td>Attitude towards mobile devices for shopping</td>
<td>.296</td>
<td>.011*</td>
</tr>
<tr>
<td>H2</td>
<td>Perceived Ease of Use</td>
<td>Attitude towards mobile devices for shopping</td>
<td>.439</td>
<td>.000**</td>
</tr>
<tr>
<td>H3</td>
<td>Perceived Ease of Use</td>
<td>Perceived Usefulness on the use of mobile devices for shopping</td>
<td>.683</td>
<td>.000**</td>
</tr>
<tr>
<td>H4</td>
<td>Perceived Ease of Use</td>
<td>Perceived Enjoyment on the use of mobile devices for shopping</td>
<td>.670</td>
<td>.000**</td>
</tr>
<tr>
<td>H5</td>
<td>Perceived Enjoyment</td>
<td>Attitude towards mobile devices for shopping</td>
<td>.153</td>
<td>.077</td>
</tr>
<tr>
<td>H6</td>
<td>Attitude towards mobile shopping</td>
<td>Intention to use mobile devices for shopping</td>
<td>.715</td>
<td>.000**</td>
</tr>
<tr>
<td>H7</td>
<td>Intention to Use</td>
<td>Purchase intention using mobile devices</td>
<td>.497</td>
<td>.000**</td>
</tr>
<tr>
<td>H8</td>
<td>Social Influence</td>
<td>Attitude toward use of mobile devices for shopping</td>
<td>.353</td>
<td>.000**</td>
</tr>
<tr>
<td>H9</td>
<td>Social Influence</td>
<td>Intention to use mobile devices for shopping</td>
<td>.155</td>
<td>.078</td>
</tr>
<tr>
<td>H10</td>
<td>Social Influence</td>
<td>Purchase intention using mobile devices</td>
<td>.153</td>
<td>.028*</td>
</tr>
<tr>
<td>H11</td>
<td>Perceived Financial Risk</td>
<td>Intention to use mobile devices for shopping</td>
<td>-.103</td>
<td>.203</td>
</tr>
<tr>
<td>H12</td>
<td>Convenience</td>
<td>Purchase intention using mobile devices</td>
<td>.064</td>
<td>.414</td>
</tr>
<tr>
<td>H13</td>
<td>Satisfaction</td>
<td>Purchase intention using mobile devices</td>
<td>.248</td>
<td>.004**</td>
</tr>
</tbody>
</table>

**DISCUSSION AND IMPLICATIONS**

The findings of this study indicate that the perceived usefulness and ease-of-use influence attitude toward using mobile device for shopping, which agrees with previous findings on this topic, using samples of traditional mobile phone users (e.g. Kim, Ma, and Park 2009; Yang and Forney 2013). Accordingly, the result implies that the easier it is to use m-shopping services/websites with Smartphones, the more useful and enjoyable m-shopping will be and, consequently, a better positive ATT towards m-shopping will eventually be created. Perceived enjoyment is not a significant factor affecting attitude, suggesting that the surveyed consumers who prefer the functional advantages of m-shopping in terms of convenience and ubiquitous availability probably like the idea of saving time and money while engaged in m-shopping. This is different from existing studies (e.g. Lu and Su 2009; Yang and Forney 2013), in which novice consumers placed greater value on hedonic shopping aspects than experienced consumers (Grob, 2015). Attitude is a strong predictor of the intention to use mobile devices, indirectly influencing the intention to purchase using mobile devices. Our results found that social influence didn’t show a significant effect towards the intention to use mobile devices for shopping. We suggest that Millennials don’t need others to influence them to use mobile devices for shopping. There is evidence that social influence exhibited a significant correlation on the intention to use m-commerce. The finding provides evidence to support prior studies (Shin, 2007; Khalifa and Cheng, 2002), which suggested the importance
of SI in predicting the adoption of m-commerce. In contrary to precious research findings showing perceived risk being a negative factor on intention to use (Wu & Wang, 2005), in this study, perceived financial risk did not appeared to have an effect on the intention to use mobile devices for shopping. The possible explanation would be the majority of our participants have personal knowledge and experience with mobile commerce. They are well aware of the potential financial risk involving the use of mobile commerce. Therefore, perceived risk is not a barrier to use mobile commerce in this case. According to Jarvenpaa and Todd (1997), realizing that convenience is a multidimensional factor, the findings in this study are consistent with those found in previous relevant literature which showed that convenience is the main motivating factor in purchasing through the Internet (Izquierdo-Yusta, 2011).

M-commerce provides compelling new revenue opportunities for financial institutions. This is something that is often overlooked. At a time when financial institutions margins are under pressure from regulation and intensifying competition, it is crucial that financial institutions focus on the doors that m-commerce opens to them. M-commerce through applications is a win-win for both financial institutions and consumers. Institutions, for example, will pay a significant distribution commission when products/services are sold through a mobile application. This would provide a financial institution a significant potential revenue stream. Data-driven analytics allow providers continually to refine their service and create highly-targeted, relevant offers in the areas of gift cards or tickets, leading to longer, more profitable customer relationships. Financial institutions are going to have to move swiftly to take advantage of their unique ‘window of opportunity’. Providing that they leverage data and insights, that mobile commerce and customer trust, there is real opportunity for financial institutions to create a new golden era in the service industry.

REFERENCES


