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Does country culture influence consumers' perceptions toward mobile banking? A comparison between Egypt and the United States

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ABSTRACT

This study provides insights into the potential impact of country culture on consumers' perceptions toward usage of new innovative technological services. Focusing on mobile banking (m-banking), this work compares responses from three distinct consumer segments, including– 1) consumers living in Egypt, 2) consumers from Egypt who are living in the U.S. and 3) U.S. consumers. The study utilizes constructs from the Technology Acceptance Model (TAM) including, perceived ease of use and perceived usefulness, along with perceived risk, trust and social influence to examine the differences between these three distinct consumer segments' usage intentions toward mobile banking. The hypothesized model was tested using structural equation modeling (SEM). Results indicate that country culture (both primary and secondary) can, to some degree, influence consumers' perceptions and intentions toward mobile banking. Implications and future research suggestions are provided.

1. Introduction

Recent years have witnessed major advances in the tools used to provide financial services to consumers both business to business (B-to-B) and business to consumers (B-to-C) (Laukkanen, 2007). Many of the most impactful and important advancements have been in the area of mobile banking. Zhoua, Lu, and Wang (2010) define mobile banking or m-banking as "*the use of mobile terminals such as cellphones and personal digital assistants (PDAs) to access banking networks via the wireless application protocol (WAP)*" (p.760). It represents a means to obtain banking services needed to administer financial affairs through mobile devices (Anderson, 2010).

Mobile banking as an innovative technology is valuable for key institutions in the financial sector (e.g., traditional banks and other lending organizations) but also has the ability to improve the quality of life of underserved populations (Malaquias and Hwang, 2016). For consumers of all types, mobile-banking allows financial transactions to be undertaken from any place, at any time (Zhou, 2012). It permits consumers to make payments, transfer money, manage bank accounts and buy and sell stocks and other financial instruments using multiple types of mobile devices (Gu et al., 2009; Laukkanen, 2007). Mobile banking, if embraced, could have a significant impact in developing, nonwestern countries where multitudes of consumers do not have access to traditional banking services or the cost of such services are prohibitive (Gutierrez and Singh, 2013).

Despite impressive advantages, the usage penetration of m-banking services by traditional banking establishments is still limited in many countries (see – Akturan and Tezcan, 2012; Alalwan et al., 2016; Lin, 2011; Malaquias and Hwang, 2016; Zhou, 2012). These

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and other scholars have explored a number of factors to try and explain the slow diffusion of m-banking around the world, including customers' doubt of the safeness of banking transactions through mobile devices, lack of trust in m-banking platforms, aversion to or confusion with new innovations and specific characteristics relating to mobile phones such as small screens and keypads. The search for answers to and solutions for low rates of innovation adoption remains ripe for continued research (Lee and Chung, 2009). Again, this is especially true in developing and nonwestern countries as almost all theories and models focusing on technology adoption and acceptance have emerged from and evolved in western countries with advanced economies. In short, there is a need to apply these models across emerging/nonwestern societies if we are to more fully understand if indeed such models can explain and predict consumers behavior in countries where the vast majority of humanity resides (Khosrow-Pour, 2017).

It is generally understood that human behaviors and attitudes toward innovations are influenced by one's cultural orientation, particularly those derived from the cultural sway of one's country of origin (Muk and Chung, 2015). Similarly, national cultural characteristics can and do affect consumer decision making by shaping perceptions and preferences of products, services and innovations (Hofstede, 1980, 2001; Hofstede et al., 2010; Martinsons and Davison, 2007; Rogers, 1995). Such research indicates that individual behaviors toward adoption of new technology, like m-banking, could vary across countries with distinct cultures.

To date, the cultural influence on m-banking adaptation has received limited empirical investigation and further exploration of this issue has been called for in the literature (Mohammadi, 2015; Mortimer et al., 2015). The present study attempts to address this call by examining how cultural differences can influence consumers' usage intention with respect to innovations in the communication and information technology arena. This examination, utilizing survey research, focuses on m-banking use and perceptual differences between two distinct cultures, one in an emerging/developing-nonwestern country (Egypt/Egyptians) and one in the world's largest and most advanced western countries (the United States/Americans). We also examine the perceptions of Egyptians who now live in the U.S. in order to explore the influence that changing one's cultural surroundings (moving from one's primary culture to a secondary culture) might have on such perceptions.

Accordingly, this study's main contribution lies in addressing a number of shortcomings in the innovation/m-banking literature. First, existing studies have primarily focused only on exploring predictors of m-banking adoption from a one-country perspective. Second, only a few studies have addressed the influence of country culture on innovation adoption utilizing a cross-country comparisons perspective (this is particularly apparent with respect to developed versus developing countries). And third, no study has examined the issue of innovation/m-banking perceptions of consumers who have moved to a country that is not their birth country or birth culture. The current study addresses these realities by – 1) utilizing distinct samples from two different countries (Egypt, a developing nation and the U.S., a developed nation), and 2) for the first time examines the impact that changing one's cultural surroundings might have on perceptions towards innovation/m-banking. This is accomplished by examining a sample of Egyptians currently living in U.S. (consumers who have left their primary culture to live in a country containing a secondary culture).

Comparison between these three groups may offer insights into the potential impact of country culture on consumers' perceptions and intentions toward m-banking specifically and innovations in general. As Egypt and the U.S have significantly different cultures, such differences might influence consumers in many ways. Likewise, changing one's cultural surroundings (i.e., Egyptians now living in the U.S.) might also influence consumers' perceptions, intentions and behaviors. Understanding such influence may in turn lead to valuable prescriptive insights with respect to enhancing the adoption of valuable innovations in distinct cultures with distinct consumer segments. The primary objective of this research is to examine the issue – does country culture affect consumers' perceptions of and behaviors toward innovation, specifically - mobile banking?

In summary, to accomplish this objective, this study utilized survey research to examine differences between Egyptian and American m-bank customers. In addition, in order to investigate whether changing one's cultural/country environment influences perceptions toward innovation/m-banking, we examined a third sample, namely Egyptians who have moved and are currently living in U.S. The paper is organized as follows. Following the introduction above, we discuss mobile banking in developing countries and the cultural differences between Egypt and the U.S. We then provide a brief overview of the theoretical framework that guided our research and present the hypotheses tested. Finally, we illustrate the research methodology employed, present results from the data collected, and provide conclusions, along with this study's limitations and suggested future research directions.

2. Mobile banking in developing countries

It has been estimated that over 2.7 billion people in underdeveloped or emerging markets do not have traditional banking accounts (Anong and Kunovskaya, 2013). It is also a fact that consumers in developing countries, who possess cellular phones, far outweigh those that have traditional banking accounts (Porteus, 2006). Therefore, many observers believe m-banking is the most effective means to bring financial services and economic advancement to the world's poor, particularly in rural areas (Hinson, 2011).

Other evidence of the value of m-banking is telling. One study of 11 countries in Sub-Saharan Africa, found that people in low-quality infrastructure regions (those without traditional or legacy telecommunications foundations such as telephone lines or high-speed Internet connectivity) are willing to use cellphones to access financial services and complete commercial transactions more so than those who live in high-quality infrastructure regions (Mothobi and Grzybowski, 2017). Likewise, innovative technologies such as those that facilitate m-banking have been described as fundamental in promoting commercial and governmental transparency and reducing corruption in Sub-Saharan Africa (Kanyam et al., 2017). At the macro-level, m-banking specifically has been found to positively influence "inclusive development" in emerging countries (Asongu and Nwachukwu, 2018).

Likewise, the micro-level benefits for organizations that have embraced innovative communication technologies are significant. Traditional banking institutions, which have adopted m-banking capabilities, have reduced operations costs, while offering more appropriate services, leading to significantly enhanced banking engagement with the "unbanked" populations particularly in

developing countries (Lin, 2013; Shaikh and Karjaluoto, 2015). The overall results of such adaptation have been increased returns on investments, superior competitiveness (Kurila et al., 2016), and improved perceptions of banking in general by potential customers (Mehrad and Mohammadi, 2017).

In Egypt, it has only been during the last decade that banks introduced the concept of electronic banking (e-banking services including paperless banking statements). And most of the 38 banks operating in the Egyptian market today have only recently launched their m-banking apps to consumers. This launching was related to Egypt being considered a very promising market for m-banking innovation, as the number of mobile phone subscribers has risen dramatically today, to more than 93 million (out of a total population of approximately 98 million) and mobile Internet users reached more than 32 million in February 2019 according to the Egyptian Ministry of Communication and Information Technology (Egypt ICT Indicators, 2019). Despite these realities, m-banking in Egypt faces on-going challenges related to the lack of adequate infrastructure particularly in less-favored or remote areas. Likewise, m-banking penetration in Egypt is challenged by consumer perceptions that such services may be difficult to use and may be untrustworthy. This is particularly apparent among older and less-uneducated Egyptians who have had limited experience with using the Internet and often prefer face-to-face transactions. A need is apparent to more fully understand Egyptian (as non-westerners) perceptions of innovation and to develop strategies to mitigate their trepidation to using innovations such as m-banking if the full benefits of such innovation are to be realized (Sharma et al., 2017).

3. Egypt and the U.S. – insights into innovation adaptation based on cultural differences

Understanding some of the salient cultural differences between Egypt and the U.S. may provide insights into perceptions of and attitudes towards innovations such as m-banking. Hofstede (1980, 2001) and Hofstede et al. (2010) have championed a number of cultural dimensions of value in this regard. These dimensions include power distance, uncertainty avoidance, individualism versus collectivism, masculinity versus femininity and indulgence versus restraint.

Power distance represents the degree to which members of a society, organization or family accept and expect power to be distributed equally (or unequally). Those cultures categorized as high in power distance expect obedience to leaders and parents from subordinates and children. Cultures categorized as low in power distance encourage personal independence and challenges to superiors. New ideas and new innovations in high power distance cultures would tend not to be readily embraced by individuals, unless the leader(s) in those cultures first embrace the new ideas or innovations. Egyptian culture is categorized as high on the power distance dimension when compared to Americans (of the 53 countries examined by Hofstede, Arab countries - including Egypt, ranked 7th, whereas the U.S. ranks 38th). Thus, in general, Egyptians might tend to embrace innovation less readily than their American counterparts (again, unless the relevant Egyptian leader embraces it first).

Uncertainty avoidance represents the degree to which a culture encourages its members to feel either uncomfortable or comfortable in unstructured situations (e.g., the novel, unknown or surprising situations). Uncertainty avoidance cultures, through laws, rules or religion. Tend to minimize uncertain situations if possible. Of the 53 countries examined by Hofstede, Arab countries - including Egypt, ranked 27th, while the U.S. was ranked 43rd. Thus, in general, Egyptians would tend to avoid uncertainty more so than Americans. Past research has demonstrated that cultures which seek to avoid uncertainty tend to shy away from using new innovations, unless such innovations allow for a decrease in uncertainty (Lu et al., 2017). Likewise, Hofstede theorized that cultures high on uncertainty avoidance, tend to view radical new ideas as potentially dangerous and thus are suspect.

Individualism versus collectivism focus on social behavior toward groups. It represents a spectrum concerning the degree to which individuals are integrated into groups. In individualistic societies, members tend to focus on themselves and are expected to take care of their own welfare. In collective societies, members are integrated into strong, cohesive groups, where group protection and loyalty are key concepts. According to Hofstede's ranking, Egypt is a collectivist society (Arab countries were ranked 27th out of 53 countries and regions examined). In contrast, the U.S. is highly individualistic (Americans in Hofstede's study ranked 1st in individualism). In collectivistic cultures, social norms also play a vital role in directing people's behaviors and if the social norm embraces an innovation then such innovation could spread quickly through a society. If such an embrace is not apparent, an innovation may stagnate in collectivist societies (Kalliny et al., 2006).

With respect to the masculine versus feminine dimension, both Egypt and the U.S. had similar ranks in Hofstede's research, both tending to be more on the masculine side (the U.S. was slightly higher than Egypt in masculinity dimension, since U.S. ranked 15th and Egypt ranked 23rd out of the 53 countries and regions examined). Assertive and competitive cultures are labeled masculine. Modest and caring culture are labeled feminine. In general, Hofstede research indicated masculine cultures tend to embrace innovations as a potential means to excel past a competitor or rival.

Finally, in terms of the dimension indulgence versus restraint, Hofstede et al. (2010) defines indulgence as "*a tendency to allow relatively free gratification of basic and natural human desires related to enjoying life and having fun"* (P.281). While, restraint refers to "*a conviction that such gratification needs to be curbed and regulated by strict social norms"* (p. 281). Out of the 93 countries and regions examined by Hofstede in this study, in regard to indulgence and restraint, the U.S. ranked 15th and Egypt ranked 92nd. This signifies that Egyptian society is considered one of the most "restrained" of all societies where behaviors are strictly controlled by social norms. In contrast, American society is significantly more indulgent, permitting individuals to satisfy their gratification needs more freely. As a marketing generalization, innovations that promise gratification of desires related to enjoying life and having fun would have to be promoted differently to Egyptian society than they would be in American society. The "messaging" of such innovations would have to focus on the specific norms or values related to the acceptability of indulgence versus restraint as embraced by specific societies.

While Hofstede's dimension offer food for thought concerning innovation adaption between cultures, they must be considered as

complex generalizations. Which of the five dimensions note by Hofstede would play a more significant role in determining a society's tendency to embrace (or not) innovations, such as m-banking, is difficult to pin-point. For example, Egyptians embrace of innovation may be enhanced by their high masculinity ranking or it may be offset by their high uncertainty avoidance ranking. Yet Egyptians may ultimately embrace innovations of one type or another if it is seen as a means to achieve an advantage over a rival (the high masculinity ranking coming into play here) or is promoted by a respected leader or social influencer.

Likewise, in today's highly peripatetic societies (where immigration from one country to another for work, education, political asylum and other motives is more common than in the past), cultural "mixing" or semi – bicultural (or multi-cultural) segments exist and may be substantial. Indeed, each year thousands of immigrants' requests and are granted American citizenship. The value of examining such segments and their perceptions of innovations is evident as it may help guide marketing and messaging strategies for organizations offering innovations, such as m-banking, to the millions of today's consumers that have moved from their primary culture to a secondary culture.

The present study was undertaken to explore these realities and gain insight into innovation adaption with respect to distinct cultures (Egyptian and American) and into a semi-bicultural segment (Egyptians who reside in the U.S.). Hofstede's dimensionality represents a starting place to think about and perhaps help explain our findings regarding distinct consumer attitudes and behaviors toward innovation, particularly m-banking.

4. Theoretical framework and research model

A variety of theoretical models have been employed to explain and predict customers' usage intention with respect to innovation. For example, the technology acceptance model (TAM) introduced by Davis (1989) and its extensions, task-technology fit model (TTF) presented by Goodhue and Thompson (1995). Likewise, the theory of planned behavior model (TPB) proposed by Ajzen (1991), and the diffusion of innovation model (DOI) developed by Rogers (1995), along with the unified theory of acceptance and use of technology model (UTAUT) presented by Venkatesh et al. (2003) and the UTAUT2 posited by Venkatesh et al. (2012), have all contributed to our understanding of innovation adoption and use among consumers.

Moreover, a number of researchers have proposed and tested comprehensive frameworks consisting of one or more of the above-mentioned models (while also proposing supplemental constructs in their frameworks) in order to improve our understanding of innovation and its adaption. These include Luarn and Lin (2005), who extended the TAM model by adding three factor - perceived credibility, perceived self-efficiency and perceived financial improvement in their framework. Also, Gu et al. (2009) extended the TAM model to include a trust-based dimension as a key predictor of behavioral intention toward innovation.

In another study, set in China, Zhoua et al. (2010) consolidated both the UTAUT2 model and TTF model to examine adoption behavior in regard to innovation. Likewise, Wessels and Drennan (2010) in a study set in Australia, integrated TAM variables with cost, perceived risk, compatibility and need for interaction to further our knowledge of innovation adaption in society. Akturan and Tezcan (2012) extended TAM theory by combining perceived risk and perceived benefit to Turkish consumers of innovation. In a 2014 study, Hanafizadeh et al. (2014) utilized the TAM model, but included perceived risk, perceived cost of use, trust, need for personal interaction, credibility and compatibility with lifestyle and related needs to more fully examine innovation adaption in Iran.

The insights gained in other studies set in Portugal (see – Oliveira et al., 2014), Pakistan (see - Afshan and Sharif, 2016), Jordan (see –Alalwan et al., 2017), Iran (see Mehrad and Mohammadi, 2017), Spain (see – Muñoz-Leiva et al., 2017), and Oman (see – Sharma et al., 2017), likewise provide a rich body of literature related to innovation adaption and use.

A thorough review of this literature helped guide the current study's utilization of the Technology Acceptance Model (TAM), given its reported reliability and validity in measuring the acceptance of numerous innovative technologies within a variety of societies and cultures. The TAM represents the most widely accepted framework for research to-date in this area of study (Shaikh and Karjaluoto, 2015).

According to TAM theory, perceived ease of use and perceived usefulness are the key predictors of behavioral intentions and ultimate innovation adaption and use (Davis, 1989; Venkatesh and Davis, 2000). However, additional constructs have been proposed in other studies to enhance the usefulness of the TAM including perceived risk, trust and social influence (King and He, 2006). Based upon this background, Fig. 1 displays the research model utilized in the present study. A brief overview of the constructs depicted in this figure and the derived hypotheses in this study follows.

4.1. Perceived ease of use

The term perceived ease of use was introduced by Davis (1989) as "*the degree to which a person believes that using a particular system would be free of effort*" (p. 320). Indeed, in spite of m-banking's benefits, consumers are not going to adopt this innovation if they find difficulty in its use. Previous researchers have reported a positive relationship between perceived ease of use and usage intention with respect to a number of innovations, including m-banking (see - Gu et al., 2009; Hanafizadeh et al., 2014; Luarn and Lin, 2005; Mehrad and Mohammadi, 2017; Mohammadi, 2015; Tobbin, 2012). Moreover, numerous studies focusing on innovation and utilizing the TAM model found a correlation between perceived ease of use and subsequent attitudes and intentions to continuing using the innovation because of its perceived usefulness. Ease of use and usefulness logically go hand-in-hand (Akturan and Tezcan, 2012; Alalwan et al., 2016; Koenig-Lewis et al., 2010; Muñoz-Leiva et al., 2017; Riquelme and Rios, 2010). It appears that increasing any innovations ease of use is rational if enhanced adaptation and continuation of use is desired (Gu et al., 2009). Consequently, the following hypotheses are proposed:

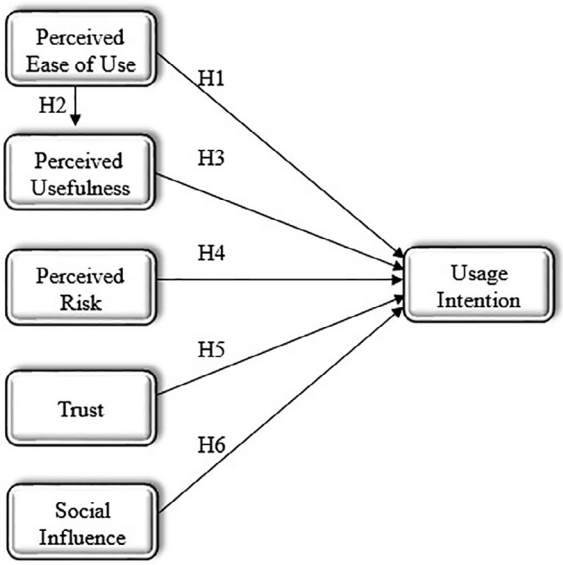

Fig. 1. Research model.

H1. Perceived ease of use positively influences usage intentions toward m-banking for all three consumer segments (Americans, Egyptians and Egyptians living in the U.S) in this study

H2. Perceived usefulness of m-banking mediates the effect of perceived ease of use for all three consumer segments' usage intention towards m-banking.

4.2. Perceived usefulness

Perceived usefulness is defined by Davis (1989) as "*the degree to which a person believes that using a particular system would enhance his or her job performance*" (p. 320). With mobile banking, a primary motive for individuals to use a m-banking app was found to be its usefulness in managing their financial affairs (Luarn and Lin, 2005). Subsequent research verified the positive impact of perceived usefulness on consumers' usage intention toward m-banking services (Gu et al., 2009; Hanafizadeh et al., 2014; Mortimer et al., 2015; Sharma et al., 2017; Wessels and Drennan, 2010). As such, the following hypothesis is proposed:

H3. Perceived usefulness positively influences usage intention of m-banking for all three consumer segments in this study.

4.3. Perceived risk

Perceived risk has been conceptualized as the level of uncertainty associated with the results when utilizing an innovation (Tan and Lau, 2016). Risks associated with m-banking include those related to the security of banking transactions, fraud, and risks associated with the privacy of information, especially for financial privacy (Ashta, 2017). Research indicates that high risk perceptions is associated with consumers avoiding new innovations (Malaquias and Hwang, 2016). Risk perception and innovation avoidance has been found among consumers in the United Kingdom (Lee et al., 2003), Australia (Wessels and Drennan 2010), Brazil (Cruz et al., 2010), Saudi Arabia (Al-Jabri and Sohail, 2012), Taiwan (Chen, 2013) and other nationalities. Accordingly, the following hypothesis is proposed:

H4. Perceived risk negatively influences customers' usage intention of m-banking for all three consumer segments in this study.

4.4. Trust

According to Koksal (2016), trust means that "*the subjective probability with which customers believe that a particular transaction occurs in a manner consistent with their confident expectations*" (p. 334). As for m-banking, trust could help in reducing customers fears and concerns regarding the privacy of their personal data and security of banking transactions carried out through mobile devices. This, in turn, can enhance and promote customer adaptation of m-banking (Lin, 2011). Several studies report trust as being one of the most influential drivers of customers' intention to make use of innovations including m-banking applications (Gu et al., 2009). Likewise, Hanafizadeh et al. (2014), Kim et al. (2009), Merhi et al. (2019), Tobbin (2012) and others found consistency in the vital role of perceived trust affecting the perceived value of m-banking in both traditional banking consumers and the unbanked (Chiu,

Bool, & Chiu, 2017). Based on these findings, the following hypothesis is proposed:

H5. Trust positively influences customers' usage intention of m-banking for all three consumer segments in this study.

4.5. Social influence

In the context of m-banking, social influence refers to "*the influence of the surrounding social environment on a customers' intention to adopt Mobile banking; for example, reference groups, family, opinionated leaders, friends and colleagues*" (Alalwan et al., 2017, p.102). Indeed, past research has shown reference groups' opinions and recommendations can and do have an effect on consumers willingness to utilize new innovations, including m-banking (Sharma et al., 2017; Tan and Lau, 2016; Zhoua et al., 2010). As such, H6 in this study is:

H6. Social influence positively influences customers' usage intention of m-banking for all three consumer segments in this study.

4.6. Cultural differences: a 7th hypothesis

Past studies suggest that consumers' cultural backgrounds can influence their perceptions and behavioral intentions towards innovations, specifically innovation related to information and communications technologies (see – Bankole and Bankole, 2017; Harris et al., 2005; Muk and Chung, 2015; Mortimer et al., 2015). According to Hofstede (1980), culture refers to "*the collective programming of the mind which distinguishes the members of one human group from another*" (p.13). This implies that different societies have different sets of cultural values that shaped their perception and intentions (such differences with respect to American and Egyptian consumers were noted previously). Not-with-standing the literature cited, our knowledge of country cultures' influence on such perceptions and intentions is limited. Following their cross-cultural studies, both Mortimer et al. (2015) and Bankole and Bankole (2017), called for future exploration into this issue. To-date, no study has investigated this issue from the perspective of the present study (focusing on the three distinct consumer segments noted previously). As such, the relationships posited in Fig. 1 could be the same for each of the three segments of focus here, or they could be difference across all three. Clearly, there is a necessity to add new insights to our understanding regarding the influence of country culture on consumers' perceptions of innovation (and, given the migration and mobility of consumers in modern society, this studies' inclusion of Egyptians living in the U.S.). As such, the final and 7th hypotheses put forth is:

H7. The relationships between variables related to using m-banking differs across Egyptians, Americans and Egyptians living in the U.S.

5. Method

5.1. Measurement

An online self-administered survey instrument was used for the data collection needed to test the research model and hypotheses posited in this study. The investigated variables in this research were developed based upon the previous studies cited, with scales being slightly adapted to be relevant to m-banking. The questionnaire items were divided into three parts: the first part included questions verifying respondents' prior experience with m-banking usage, the second part contained 26 items (see Appendix A) measuring the study's latent constructs including perceived ease of use, perceived usefulness, perceived risk, trust, social influence and usage intention and, the third part involved socio-demographic data. The majority of items used a five-point Likert scale that ranged from 1 (strongly disagree) to 5 (strongly agree).

Research questions were written in English and were translated into Arabic language in order to be understood by respondents in Egypt (the Egyptian's living the U.S. consumer segment were allowed to respond to the questionnaire using either the English or Arabic versions, which ever they felt most comfortable using). Each questionnaire item was back-translated into English by two bilingual academics to assure translation equivalence (Hult et al., 2008; Mullen, 1995). For ensuring content validity of the research instrument, the questionnaire was reviewed by two university business academics and then was pre-tested in both languages among 18 Ph.D. students; 10 of them from the United States and 8 from Egypt.

5.2. Data collection and research sample

Data were collected during the period from March 2018 to June 2018 by means of the previously noted online survey, for each of the consumer segments under study. The first sample contained Egyptian bank customers living in Egypt, the second sample contained American bank customers living in the United States, and the third sample contained Egyptian bank customers who currently live in U.S. The samples included only bank customers who currently possessed bank account and were at least 18 years old.

Two different methods were employed to collect data from the three target groups. American consumer data was collected using an online panel, (sponsored by Amazon's Mechanical Turk – an on-line panel source - see Mason and Suri, 2012). Data was collected from the other two groups (Egyptians living in Egypt and Egyptians living in the U.S.) utilizing an online link to the questionnaire that was sent via email, to ensure that all respondents were internet users. Due to the difficulty of having email lists of the targeted

Table 1
Samples demographic characteristics.

Measure	Items	Egypt (n_1 = 132)		U.S. (n_2 = 366)		Egyptians in U.S. (n_3 = 119)	
		N	%	N	%	N	%
Gender	Male	56	42.4	172	47	37	31.1
	Female	76	57.6	194	53	82	68.9
Age	18–30 years	52	39.4	121	33.1	29	24.4
	31–40 years	47	35.6	144	39.3	62	52.1
	41–50 years	15	11.4	52	14.2	15	12.6
	over 51 years' old	18	13.6	49	13.4	13	10.9
Education	Less than high school diploma	1	0.8	1	0.3	–	–
	High school degree or equivalent	8	6.1	125	34.2	5	4.2
	Undergraduate school degree	81	61.4	176	48.1	35	29.4
	Graduate school degree or above	42	31.8	64	17.5	79	66.4
M-banking usage	Yes	68	51.5	327	89.3	97	81.5
	No	64	48.5	39	10.7	22	18.5
Frequency of use (within the last year)	Never	1	1.5	–	–	–	–
	Less than once per yearly quarter	17	25	3	0.9	8	8.2
	Quarterly	10	14.7	18	5.5	5	5.1
	Monthly	29	42.6	41	12.5	28	28.9
	Weekly	10	14.7	175	53.5	28	28.9
	Daily	1	1.5	90	27.5	28	28.9
Period of stay in U. S.	Less than one year	–	–	–	–	18	15.1
	1 year to 3 years	–	–	–	–	31	26.1
	4 years to 10 years	–	–	–	–	34	28.6
	More than 11 years	–	–	–	–	36	30.3

Egyptian populations (in Egypt and in the U.S.), a convenience sampling method was utilized. The email addresses of sampled Egyptians living in the U.S. were obtained through communicating and interacting with Egyptian cultural and social communities residing in the U.S. Email addresses of Egyptians in Egypt were obtained through interactions with customers of Egyptian largest banks. In total, questionnaires were sent to approximately 400 individuals representing each group in the study. Results included 400 U.S. responses, 138 responses from Egyptians in Egypt (for a response rate of 34.5%), and 122 responses from Egyptians in the U.S (for a response rate of 30.5%).

For data screening, multivariate outliers were examined using Mahalanobis Distance at $p < 0.001$ processing by SPSS 24. Six cases in the Egypt sample, thirty-four cases in U.S. sample and three cases in the Egyptians living in U.S. sample were identified as multivariate outliers. As such, these cases were eliminated from the three data sets before further analysis. The final samples sizes were thus 132 (Egyptians), 366 (Americans), 119 (Egyptians in the U.S.) respectively.

The demographic characteristics of our samples are presented in Table 1. In terms of gender, it can be seen that the number of female respondents is slightly higher than male respondents for all three groups. Likewise, most of the respondents from all three samples fall in the age range from 18 to 40 years old. Overall, the vast majority of respondents were highly educated with the largest percentage of both Egyptian and U.S. respondents having an undergraduate degree, while having a graduate school degree or above represented the largest percentage the sample of Egyptians who live in the United States.

In relation to the respondents' prior experience of using m-banking, Table 1 shows that a large percentage of American respondents (89.3%) and Egyptians living in the U.S. (81.5%) have used mobile banking, while respondents from the Egyptians sample have a lessor percentage of users (51.5%). Table 1 also shows the frequency of respondents use of m-banking within the last year. Most respondents from the Americans (U.S.) and Egyptians in the U.S. groups (93.5% and 86.7% respectively), had utilized m-banking services either monthly, weekly and daily. Whereas, only 58.8% of Egyptian respondents are used m-banking services either monthly, weekly or daily.

Of particular interest for this study, Table 1 indicates that 28.6% of the respondents from the Egyptians living in the U.S. have been in the U.S. from 4 to 10 years and 30.3% of this group have been in the U.S. for more than 11 years. Together this represents almost 60% of all respondents. Thus, the majority of this group contains individuals that could indeed have transitioned to a bi-cultural status (Egyptian and American).

6. Results

Structural equation modeling (SEM) was employed for data analysis of the whole samples' data-set (performed using Amos 24). This analysis was conducted in two stages as suggested by Anderson and Gerbing (1988). First, the measurement model was assessed to check its reliability and validity, then the structural model was examined to test our research hypotheses.

Table 2
Model fit indices of confirmatory factor analysis CFA.

Fit Indices	Recommended Threshold	Actual value of the measurement model		
		Egypt	U.S.	Egyptians in U.S.
CMIN/DF	Between 1 and 3	1.442	2.314	1.701
CFI	> 0.90	0.956	0.962	0.931
TLI	> 0.90	0.950	0.957	0.921
RMSEA	< 0.08	0.058	0.060	0.077

6.1. Overall measurement results

Confirmatory factor analysis (CFA) was performed on each of the three data sets (samples) independently to evaluate convergent validity of our instrument (again using Amos 24). Table 2 displays the goodness of fit of our measurement model for each data set. As shown, all values are in the acceptable levels. Moreover, as seen in Table 3, standardized factor loading estimates for all items in the three samples are greater than 0.50 reflecting acceptable convergent validity (Hair et al., 2010).

To evaluate the reliability (and further verify convergent validity) of our instrument, we examined Cronbach's Alpha α, composite reliability (CR) and average variance extracted (AVE). As shown in Table 4 Cronbach's Alpha and composite reliability values of all constructs are greater than the recommended level of 0.70 (Hair et al., 2010; Nunnally and Bernstein, 1994). For each construct, the average variance extracted are higher than the threshold of 0.50 (Bagozzi and Yi, 1988; Fornell and Larcker, 1981; Hair et al., 2010). This confirms that the measurement model possessed adequate convergent validity and reliability for each of the data sets. In addition, discriminant validity was examined using Heterotrait-Monotrait Ratio (HTMT) method. As shown in Table 5, all values are less than the threshold value of 0.90 as suggested by Henseler et al. (2015), which supports the discriminant validity of our measurement model.

Additionally, measurement invariance was examined across all three samples. Both configural and metric invariance were assessed by using multigroup confirmatory factor analysis. Full configural invariance was confirmed as the overall model fit indices of the unconstrained model (with all parameters being freely estimated) illustrate a good fit (CMIN/DF = 1.910; CFI = 0.950; TLI = 0.943; RMSEA = 0.038). In testing metric invariance, a chi-square difference test was conducted between the unconstrained model and the fully constrained model with all parameters being equal across all three groups. Since, the change in chi-square (Δ Chi-square = 115.7, Δ df = 52) was significant, full metric invariance was not established. Therefore, partial metric invariance was

Table 3
Standardized factor loading values of CFA for all construct variables.

Construct	Items	Egypt	U.S.	Egyptians in U.S.
Perceived Ease of Use	PEOU1	0.746	0.892	0.835
	PEOU2	0.825	0.868	0.767
	PEOU3	0.857	0.895	0.850
	PEOU4	0.817	0.915	0.861
	PEOU5	0.787	0.916	0.916
Perceived usefulness	PU1	0.873	0.805	0.872
	PU2	0.878	0.846	0.921
	PU3	0.871	0.895	0.841
	PU4	0.887	0.864	0.841
Perceived risk	PR1	0.801	0.953	0.856
	PR2	0.894	0.965	0.930
	PR3	0.956	0.927	0.926
	PR4	0.838	0.948	0.914
	PR5	0.799	0.899	0.876
Trust	Tr1	0.838	0.816	0.735
	Tr2	0.760	0.767	0.736
	Tr3	0.688	0.875	0.880
	Tr4	0.582	0.685	0.614
Social influence	SI1	0.840	0.928	0.798
	SI2	0.941	0.934	0.802
	SI3	0.740	0.717	0.797
	SI4	0.801	0.889	0.943
Usage intention	UI1	0.889	0.873	0.830
	UI2	0.921	0.806	0.794
	UI3	0.961	0.746	0.780
	UI4	0.887	0.922	0.900

Note. PEOU perceived ease of use, PU perceived usefulness, PR perceived risk, Tr trust, SI social influence and UI usage intention.

Table 4
Results of Cronbach's alpha, composite reliability and average variance extracted.

Construct	α	CR	AVE	α	CR	AVE	α	CR	AVE
	Egypt			U.S.			Egyptians in U.S.		
PEOU	0.901	0.903	0.625	0.953	0.954	0.805	0.932	0.927	0.718
PU	0.929	0.930	0.769	0.912	0.915	0.728	0.929	0.925	0.756
PR	0.933	0.934	0.739	0.974	0.974	0.881	0.956	0.956	0.812
Tr	0.808	0.812	0.523	0.860	0.867	0.622	0.824	0.833	0.558
SI	0.898	0.900	0.695	0.922	0.926	0.760	0.901	0.903	0.701
UI	0.953	0.954	0.837	0.904	0.905	0.705	0.896	0.896	0.685

Note. α Cronbach's alpha, CR composite reliability and AVE average variance extracted.

Table 5
Results of discriminant validity by using Heterotrait-Monotrait Ratio (HTMT) method.

Construct	PEOU	PU	PR	Tr	SI	UI
	Egypt					
PEOU						
PU	0.606					
PR	0.749	0.746				
Tr	0.457	0.255	0.276			
SI	0.611	0.414	0.483	0.331		
UI	0.703	0.441	0.525	0.582	0.657	
	U.S.					
PEOU						
PU	0.523					
PR	0.858	0.738				
Tr	0.411	0.222	0.292			
SI	0.569	0.198	0.447	0.279		
UI	0.761	0.612	0.736	0.528	0.479	
	Egyptians in U.S.					
PEOU						
PU	0.581					
PR	0.808	0.762				
Tr	0.423	0.332	0.352			
SI	0.655	0.367	0.534	0.191		
UI	0.822	0.599	0.694	0.495	0.546	

tested, and our measurement model demonstrated partial metric invariance across groups as at least one non-constrained indicator regression was invariant for each factor. Achieving configural invariance and partial metric invariance enable us to make valid comparisons of relationships between our three samples in further analysis (Steenkamp and Baumgartner, 1998).

6.2. Overall structural model results

After affirming the reliability and validity of our measurement model, the structural model was evaluated for each sample independently. As shown in Table 6, the model fit indices of each structural model are in the acceptable levels, indicating that the structural models have adequate fit. Table 7 displays the results of hypotheses testing for each sample. For the Egypt group, both perceived usefulness and trust had a significant effect on customers' usage intention of m-banking, which supports hypotheses H3 and H5. Likewise, for the Egypt group, factors such as perceived ease of use, perceived risk and social influence are not statistically correlated with the adoption of these services, resulting in the rejection of hypotheses H1, H4 and H6.

In regard to the U.S. sample, all hypothesized factors appeared to have a significant influence on customers' usage intention of m-

Table 6
Model fit indices of each structural model.

Fit Indices	Recommended Threshold	Actual value of the structural model		
		Egypt	U.S.	Egyptians in U.S.
CMIN/DF	Between 1 and 3	1.467	2.642	1.703
CFI	> 0.90	0.953	0.952	0.931
TLI	> 0.90	0.947	0.946	0.921
RMSEA	< 0.08	0.060	0.067	0.077

Table 7
Results of hypotheses testing of each sample.

Hypotheses	Estimate	S.E.	C.R.	P	Result
	Egypt				
H1: PEOU → UI	0.031	0.135	0.232	0.816	Rejected
H3: PU → UI	0.562	0.111	5.062	***	Supported
H4: PR → UI	−0.077	0.073	−1.052	0.293	Rejected
H5: Tr → UI	0.457	0.16	2.857	0.004	Supported
H6: SI → UI	0.126	0.077	1.626	0.104	Rejected
	U.S.				
H1: PEOU → UI	−0.446	0.088	−5.068	***	Rejected
H3: PU → UI	0.993	0.075	13.178	***	Supported
H4: PR → UI	−0.039	0.027	−1.443	0.149	Rejected
H5: Tr → UI	0.371	0.068	5.427	***	Supported
H6: SI → UI	0.102	0.03	3.423	***	Supported
	Egyptians in U.S.				
H1: PEOU → UI	−0.264	0.147	−1.801	0.072	Rejected
H3: PU → UI	0.708	0.144	4.924	***	Supported
H4: PR → UI	−0.033	0.047	−0.705	0.481	Rejected
H5: Tr → UI	0.586	0.151	3.892	***	Supported
H6: SI → UI	0.171	0.058	2.919	0.004	Supported

Note. *** Significance at 0.001.

banking, except for perceived risk which is not significant. However, perceived ease of use unexpectedly is found to have a negative influence on behavioral intention, which is inconsistent with our hypothesis and prior studies that imply that perceived ease of use affects behavioral intention positively (Alalwan et al., 2016; Gu et al., 2009; Hanafizadeh et al., 2014; Koksal, 2016; Luarn and Lin, 2005; Mehrad and Mohammadi, 2017; Mohammadi, 2015; Tobbin, 2012). Based on these results, hypotheses H3, H5 and H6 were supported, while H1 and H4 hypotheses were rejected.

Finally, with respect to Egyptians living in the U.S. sample, perceived usefulness, trust and social influence were found to be significant correlated with consumers' usage intention, thus supporting hypotheses H3, H5 and H6. On the other hand, both perceived ease of use and perceived risk were not statistically correlated with usage intention, resulting in the rejection of hypotheses H1 and H4.

Next, a bootstrapping method (Amos 24) was utilized to generate standard errors and 95% confidence intervals to test for statistical significance of the indirect effects and total effects of perceived ease of use on usage intention via perceived usefulness. Results are presented in Table 8. As can be seen, the indirect effect of perceived ease of use on usage intention was statistically significant in all three samples, affirming the mediating role of perceived usefulness in the relationship between these two constructs. This provides support for hypothesis H2 and the theoretical framework presented in Fig. 1. These results indicate that if consumers perceive an innovation to be useful (in this study, m-banking), such perceptions can alleviate the perceptions that an innovation may be complex (or difficulty to use) and lead to enhanced consumer use intentions of the innovation (also as shown in Table 8, with respect to the U.S. sample, comparison between direct and indirect effects of perceived ease of use on m-banking adoption indicates that the indirect effect was significantly stronger than its direct effect).

A multi-group analysis was also undertaken using chi-square difference test to verify whether relationships between constructs are the same (or not) across the three samples. The overall structural model with the three groups provides the following fit indices (CMIN/DF = 2.049; CFI = 0.942; TLI = 0.935; RMSEA = 0.041), suggesting the adequacy of fit of the model. The result of chi-square difference test for the whole model (Δ Chi-square = 104.669, Δ df = 52) was statistically significant, indicating our three groups are different at the model level.

To further examine the differences in the structural paths between the three samples, chi-square difference tests were performed for each path separately. Results are presented in Table 9. As shown, the change in chi-square was significant for paths of perceived ease of use and perceived usefulness, confirming the difference of these paths between the three samples. The change in chi-square for the other paths in the model was insignificant, indicating that there was no difference in these paths among the three samples. Social influence was found to be a good predictor of usage intention for the Americans and Egyptians living in U.S., but not for Egyptians living in Egypt. This represents exploratory evidence of the difference of the path of social influence among groups (despite the lack of

Table 8
Standardized direct and indirect effects of perceived ease of use on usage intention.

	Egypt	U.S.	Egyptians in U.S.
Direct effect	0.024	−0.339**	−0.240
Indirect effect	0.375**	0.678**	0.500**
Total effect	0.399**	0.339**	0.260*

Note. * Significance at 0.05, ** Significance at 0.01.

Table 9
Results of chi-square difference test for each path.

Paths	$\Delta \chi^2$	Δ df	p-value
PEOU → UI	11.225	2	0.004
PU → UI	14.964	2	0.001
PR → UI	0.260	2	0.878
Tr → UI	1.844	2	0.398
SI → UI	1.283	2	0.527

statistically significant difference). Finally, as shown in Table 9, only two paths of perceived risk and trust showed no differences across all three samples. Based on these results, hypothesis H7 is partial supported.

7. Discussion and conclusion

The objective of this research was to explore if country culture influences consumer perceptions toward innovations. The study focused on mobile banking and compared Egyptian consumers living in Egypt, to Egyptian consumers living in the U.S., to American consumers in the U.S. The study, utilizing the technology acceptance model (TAM), to identify the predictors of these three distinct segments usage intention toward m-banking innovation. The predictors included perceived ease of use, perceived usefulness, perceived risk, trust and social influence. Findings from this study contribute to our understanding of innovation use intention by exploring these issues in three settings (again, Egyptians living in Egypt, Egyptians living the U.S. and Americans in the U.S.). The primary conclusion of this study is that country culture (both primary and secondary), can influence consumers' perceptions toward usage of new innovative technological services.

This study also provides evidence of this influence across all three samples. As noted previously, all relationships between the study's research constructs were found to be significantly different across all three samples except for the two paths of perceived risk and trust. It would appear, based on the findings here, that consumer perceptions of innovations can be influenced by the country culture they live in or have moved too.

Findings also reveal that perceived usefulness, across all three samples, represents a crucial determinant of customer's decisions to adopt m-banking applications. This result is consistent with earlier literature on m-banking (Gu et al., 2009; Hanafizadeh et al., 2014; Mortimer et al., 2015; Sharma et al., 2017; Wessels and Drennan, 2010). Indeed, perceived usefulness appears to be the most important factor motivating consumers use of m-banking. This highlights the fact that no matter the nationality of consumer or what country they live in, marketing efforts should focus on an innovation's usefulness to consumers.

With respect to perceived ease of use, empirical evidence indicates that for Egyptians living in Egypt and in the U.S., there is no direct impact on such consumer's behavioral intention toward m-banking. Also, perceived ease of use does not appear to have a significant positive influence on Americans' behavioral intentions. Interestingly, the results affirmed, for all three samples, the influence of perceived ease of use regarding m-banking usage through perceived usefulness of this innovation. Akturan and Tezcan (2012), Alalwan et al. (2016), Koenig-Lewis et al. (2010), Muñoz-Leiva et al. (2017) and Riquelme and Rios (2010) report similar findings indicating that perceiving m-banking as being useful in conjunction with perceiving it as easy to use, is a key driver in consumers intentions to adopt this innovation. The implications for marketers to highlight both attributes in their messaging to consumers is apparent from these findings.

Trust was also found to directly affect consumers intention to use m-banking services and trust ranked second in relative importance in explaining m-banking usage across all three samples. This result was supported by other researchers who found that trust a key predictor of m-banking adoption such as Alalwan et al. (2017), Gu et al. (2009), Hanafizadeh et al. (2014), Kim et al. (2009), Merhi et al. (2019) and Tobbin (2012). Apparently, no matter where they live, consumers who trust m-banking providers and m-banking applications are more likely to use this innovation. Again, implications for marketing messaging that highlights the security of transactions using m-banking and the maintenance of confidentiality in such use, appears to be sensible.

Interestingly, for all three samples, perceived risk did not play a role in consumers' decisions to utilize m-banking services as it was insignificant in all three models. This implies that different kinds of risks related to security, fraud or privacy of information are not widely perceived by either Americans or Egyptians, in the context of m-banking. Referencing Hofstede's theory (discussed earlier), cultures (like Egyptian and to a lesser extent American) which seek to avoid uncertainty, tend to shy away from innovation unless such innovation allows for a decrease in uncertainty. The issue for future investigation is – does m-banking decrease uncertainty associated with the transactions it allows? It appears that adaptation of m-banking as an innovative technology in driven more by trust in the technology and the provider of such technology, than by an uncertainty with the technology itself.

This study's findings indicate that social influence has an impact on intention to use m-banking for Americans and Egyptians living in U.S., but it does not affect the intentions of Egyptians living in Egypt. Past studies have found social influence to be a motivator for adoption m-banking in China (Zhoua et al., 2010), Malaysia (Tan and Lau, 2016), Oman (Sharma et al., 2017) and South Africa (Bankole & Bankole, 2017). While, the impacting role of social influence was not supported among other countries including Jordan (Alalwan et al., 2017), Lebanon and England (Merhi et al., 2019), Mozambique (Baptista & Oliveira, 2015), Portugal (Oliveira et al., 2014) and Pakistan (Afshan & Sharif, 2016). In the present study, it appears that both Americans and Egyptians living in U.S tend to be affected by others' opinions and recommendations more so than Egyptian respondents from Egypt.

These findings are somewhat unexpected if we again turn to Hofstede's theory for an explanation. According to Hofstede, the U.S

is considered to be an individualistic society where people make their decisions independently without an over-dependence of others' views, while Egyptians are considered to be a collective society where people value others' opinions, especially their families and peers. The most likely explanation for these findings is the fact that the penetration rate of m-banking is still quite low in Egypt and many Egyptians could be unfamiliar with this technology or have not experienced it yet. As such, only a few Egyptians would recommend it to others. This contrasts with the U.S. where utilizing such technology is significantly more common and thus more people, having experienced it, would recommend it to others.

In conclusion, the results of this study, while exploratory, do shed light upon a number of predictors of consumers' perceptions of innovation in the form of m-banking services in three different settings. Results also indicate that influences from national cultures (and bi-cultural influences) can influence consumers' perceptions and intentions toward innovation. Developers and marketers of innovations, such as m-banking, should take such insights into consideration when advancing strategies aimed at enhancing consumer use of new technologies.

8. Limitations and future research

One limitation of the current study is that it utilized internet users only (reaching them through email and an online panel). Egypt, like many big-emerging markets, still has significant numbers of consumers who do not use the Internet, especially older and less-uneducated ones. Such consumers tend to use traditional brick-and mortar banks for financial transactions. Thus, the ability to generalize the results of this study are limited to consumers with at least some familiarity with m-banking technology.

Our study is also limited to some degree due to the relatively small sample size of both Egyptians living in Egypt and Egyptians living in the U.S. This is perhaps due to the fact that e-mail surveys often have low response rates and the challenges faced in reaching these two groups. Further research in this area should strive to enlarge the sample size realized if at all possible.

Another limitation is the reality that other external elements, such as technology infrastructure, politics and legalities in a particular country could affect consumers perceptions and attitudes toward innovations, such as m-banking (see - Afshan and Sharif, 2016; Chaouali et al., 2017). Future research should take these dimensions into consideration to broaden our understanding of innovation perception and adaptation.

Finally, further research should focus on groups of potential consumers of innovation who are currently – a) either not aware of a specific innovation, or b) avoiding innovation because of their social/economic status, such as the unbanked people, consumers in poor rural areas and the millions that remain at the "bottom of the pyramid" in our world (see - Prahalad, 2009).

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Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Questionnaire

Constructs	Items	Questions	Sources
Perceived ease of use	PEOU1	learning to use mobile banking is/would be easy for me.	(Davis, 1989)
	PEOU2	I think that interactions with mobile banking applications are/would be clear and understandable.	(Davis, 1989)
	PEOU3	It is/would be easy for me to use mobile banking applications to perform banking transactions.	(Lin, 2011)
	PEOU4	It is/would be simple and easy for me to become skillful at using mobile banking.	(Davis, 1989)
	PEOU5	Overall, I think that mobile banking services are/would be easy to use.	(Davis, 1989)
Perceived usefulness	PU1	I think that managing my banking activities is/would be more effective using mobile banking.	(Davis, 1989), (Sharma et al., 2017)
	PU2	I think that using mobile banking improves/would improve my performance in doing banking transactions.	(Davis, 1989), (Luarn & Lin, 2005)
	PU3	I think that using mobile banking helps/could help me manage my banking activities more quickly.	(Davis, 1989)
	PU4	Overall, I think that mobile banking services are/would be very useful.	(Sharma et al., 2017)

Perceived risk	PR1	I feel that using mobile banking services could subject my banking account to potential fraud.	(Alalwan et al., 2016), (Featherman & Pavlou, 2003)
	PR2	I feel that using mobile banking could put the privacy of my information at risk.	(Alalwan et al., 2016), (Featherman & Pavlou, 2003)
	PR3	I feel that using mobile banking services could subject my banking account to financial risk.	(Alalwan et al., 2016), (Featherman & Pavlou, 2003)
	PR4	I feel that my private information could be hacked when using mobile banking.	(Chen, 2013)
	PR5	I feel that conducting my banking activities through mobile banking applications could be a risky choice.	(Muñoz-Leiva, Climent-Climent, & Liébana-Cabanillas, 2017)
Trust	Tr1	I think that mobile banking is trustworthy.	(Malaquias & Hwang, 2016)
	Tr2	I think that mobile banking sites take care of users' interests.	(Malaquias & Hwang, 2016)
	Tr3	I trust my bank to provide secure mobile banking.	(Hanafizadeh et al., 2014)
	Tr4	I think that mobile banking sites do not disclose my personal information.	(Sharma et al., 2017)
Social influence	SI1	People who influence my behavior think that I should use mobile banking.	(Venkatesh et al., 2012)
	SI2	People who are important to me think that I should use mobile banking.	(Venkatesh et al., 2012)
	SI3	I would use mobile banking on the recommendation of my relatives and peers.	(Sharma et al., 2017)
	SI4	People whose opinions that I value prefer that I use mobile banking.	(Venkatesh et al., 2012)
Usage Intention	UI1	I intend to use mobile banking in the future.	(Venkatesh et al., 2012)
	UI2	I will always try to use mobile banking in my daily life.	(Venkatesh et al., 2012)
	UI3	I plan to use mobile banking more frequently in the future.	(Venkatesh et al., 2012)
	UI4	I want to manage my bank accounts using mobile banking.	(Mehrad & Mohammadi, 2017)

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