

Exploring customer's mobile banking experiences and expectations among generations X, Y and Z

Abstract

Customer's adoption of mobile banking portrays tremendous growth in developing countries. However, it seems that there is a lack of studies about customer's experiences and expectations on mobile banking services, and more research is needed considering generational differences between mobile banking customers in Iran. The purpose of this study is to explore the customer's mobile banking experiences and expectations among generations X, Y, and Z in a developing country context, Iran. Twenty-seven in-depth interviews were conducted from active users of mobile banking services with a generational split in Iran. A qualitative content analysis was employed to understand customer's mobile banking experiences and expectations. This study identified specific features of different generations regarding their experiences and expectations of mobile banking services. Each generation displayed distinct characteristics of mobile banking. Generation X customers perceive mobile banking as complicated; generation Y customers prefer to use mobile banking for quick payments, while generation Z customers want to have more customized services and ranked mobile banking as a spontaneous solution. Every generation expects different features to focus on: generation X expects to have more user-friendly functions; generation Y prefers to have an online transaction tracker while generation Z appeals to have enhanced the user interface. This study offers a detailed strategic starting point for management to tailor dynamic customer expectations among different generations.

Keywords Mobile banking · Customer experiences · Customer expectations · Generational theory

Introduction

Mobile technology has transformed the entire way of banking transactions. Today, banks are operating actively in a competitive environment to ensure the delivery of high-quality services and products. Customer experiences in digitalized financial services keep on changing (Komulainen and Makkonen, 2018). Therefore, banks utilize recently advanced technological solutions to tailor customers' dynamic needs. As part of the high technological development era, more sophisticated smartphones have been developed, and they have increased Internet access globally and thus

created significant value for banking services as well. The adoption of mobile banking has portrayed tremendous growth in recent years (Chaffey, 2017) and it has been rapidly progressing in developing countries (Anderson, 2010; Boor *et al.*, 2014). It can be assumed that the technological paradigm shift enabled a broad audience and even different generations to adopt mobile banking as one of the most effective and readily available solutions for the issues in banking transactions.

Berraies *et al.* (2017), evaluated the effects of the perceived value of mobile banking services on customer's e-trust. The study found age as a moderator and noticeable differences between the three generations; Baby Boomers, Generation X, and Generation Y. Furthermore, numerous other researchers highlighted age as an individual variable influencing in shaping the perception of technology use (Roig *et al.*, 2006; Kumar and Lim, 2008; Morris and Venkatesh, 2000). Additionally, Dandapani, Lawrence, and Rodriguez (2018) identified customer age matters in Internet banking.

Consequently, the growth of smartphone and Internet users, rapid increase, and the willingness to adopt mobile banking (Chawla and Joshi, 2017; Ono *et al.*, 2012) creates more diversity and dynamic needs of users around the globe that fosters the need for customization of mobile banking services. This scenario also encourages more active attempts to introduce mobile banking services to customers. This technology must be developed at the same time as changing customers' attitudes (Moutinho and Smith, 2000). Otherwise, the banks have to put a high emphasis on advertising and marketing to encourage customers to take advantage of these services. However, consumer's willingness to adopt mobile banking services is different in the different phases of banking services (static, interaction, and transaction phases) (Shareef *et al.*, 2018), which creates high efforts for mobile banking strategic planners to have a comprehensive idea of customer's demands.

Despite extensive research and literature on mobile banking around the world including USA (Luo *et al.*, 2010), China (Yang, *et al.*, 2009), UAE (Aboelmaged and Gebba, 2013), Zimbabwe (Chitungo and Munongo, 2013), Finland (Laukkanen and Kiviniemi, 2010), India (Chawla and Joshi, 2017), and Iran (Beiginia *et al.*, 2011; Hanafizadeh *et al.*, 2014), a limited number of academic research has been carried out to understand customer mobile banking experiences in more in-depth ways, factors influencing mobile banking applications and address the perception and expectations of generations which is a cause of concern to date, especially in

developing countries. The majority of existing literature concentrated on mobile commerce (m-shopping) and online banking and examined external factors influencing mobile banking (Farah, Hasni and Abbas, 2018). To the best of our knowledge, no attention has been paid to customer experiences and expectations on the usage of mobile banking with a particular focus on age as the key factor in the adoption of new technology. Earlier research seem to approach age as moderator in quantitative models (Berraires *et al.*, 2017; McLean *et al.*, 2018) without deeper more explorative generational comparisons. Moreover, different factors influencing adoption of mobile banking show that earlier results often appear to conflict with each other to determine the most important factor for example being security (Boor *et al.*, 2004), convenience and easy access (Suoranta, 2003) or hedonic motivation (Farah *et al.*, 2018). Thus, to able to fill this research gap and providing response to the call for qualitative studies on mobile banking adoption (Shaikh and Karjaluto, 2015), the objective of this study is (1) to explore the acceptance of mobile banking through generations (2) to find the most important factors influencing their experience of mobile banking, and (3) to find their expectations for future changes in this technology in the context of a developing country, Iran.

This study explores mobile banking in the developing country context of Iran. The study will continue the stream of literature among financial service marketing researchers on providing country-specific contextual knowledge on adoption of mobile banking in developing countries (Yang *at el.* 2009; Chitungo and Munongo, 2013; Chawla and Joshi, 2017). According to the changes in the financial market of Iran, financial services on mobile phones should be integrated into all categories which enable users to use these services. As the rate of using the Internet is escalating, and as increasingly more people are using the Internet for their banking transactions, mobile banking services are growing dramatically.

This study concentrates on mobile banking services as an emerging technology and enhances required financial services to the customers. More specifically, this study aims to understand the specific characteristics of customer experiences and expectations with mobile banking among generations in a developing country context. Based on the synthesis of contextual gaps, current research aims to answer the following research question: *What kind of customer's mobile banking experiences and expectations are there among different generations?* The findings of this study align with the objectives of the study and will indicate that customer groups from three generations vary in their experiences and expectations. Given the diversity in culture, most

dominantly, the generational cohorts, similarities, and differences exist in Iran mobile banking context. The findings will highlight the unique contribution towards mobile banking customer experiences and expectations from a developing country context with a comparison among different generational cohorts.

Theoretical background

Technology adoption in a developing country context

New technology brings much resistance in adoption, which depends on the ability to learn new things (Chang *et al.*, 2017). A literature review from prior studies have indicated that several factors are affecting in the adoption of mobile banking such as interaction, time and effort saving, levels of perceived risk, perceived uncertainty, security, and privacy, perceived financial cost, perceived usefulness, ease of use, credibility, self-efficacy, perceived system quality, perceived risk, compatibility and risk, experience, and Information quality (see e.g. Glavee-Geo *et al.*, 2017; Moser, 2015; Lewis *et al.*, 2010; Lee *et al.*, 2009; Yu and Fang, 2009; Chung and Kwon, 2009; Kleijnen *et al.*, 2009; Lee *et al.*, 2009; Laukkanen, 2007; Yang, 2005; Luarn and Lin, 2005). Recently research conducted by Deb and Agrawal (2017) investigated the adoption procedures and trends and factors which affected the adoption of Mobile Banking in India and concluded that mobile banking is perceived as a more effective and time-saving way for banking transactions. Furthermore, Singh and Srivastava (2018), and Boor *et al.* (2014) mentioned in their study that security issues are the key elements of resistance in Mobile Banking. According to Suoranta (2003), the essential factors are convenience and easy access to the services even without considering time, place, privacy, and saving in time and effort. Moreover, Boonsiritomachai and Pitchayadejanant (2017) and Farah *et al.* (2018) indicated in their finding, quite differently compared to earlier studies by emphasizing that the most crucial factor is the hedonic motivation of mobile banking users which motivate customers in mobile banking adoption, especially in young generations. Results often appear to conflict with each other to determine the most significant factor influencing the adoption of mobile banking. Thus, the objective of this study is (1) to explore the acceptance of mobile banking through generations (2) to find the most critical factor influencing their experience of mobile banking, and (3) to find their expectations for future changes in this technology in the context of a developing country, Iran.

Digital banking is part of a broader paradigm shift towards more interactive customer communication in the Iranian banking industry (Sadeghi, 2004). Specifically, customer's ability, willingness, and adoption experiences of mobile banking are of paramount importance to explore in developing countries. In the competitive era of information technology adoption, Iranian banks undertook extensive activities to support digital banking services (Sadeghi and Heidarzadeh Hanzae, 2010). Recently, Iranian banks are initiating infrastructures for their comprehensive automation system. Therefore, this exploratory research focuses on the current mobile banking customer experiences and expectations in Iran.

Generational theory

Historically, three-generational cohorts exist; Generation X (born between 1965 and 1979); Generation Y (born between 1980 and 1994 - the first generation who are exposed and experience to the world of technology); and Generation Z (born after 1995 in a world of computers). Exploration of generations in the context of technological advancement is most relevant to delineate the potential differences among digital immigrants (generation X) and digital natives (generation Y and Z) (Bassiouni and Hackley, 2014). Each customer belongs to a different generation with unique psychographic characteristics, different demographic, and distinct needs in comparison to their previous generations, and these customers behave differently from each other in adopting new technologies due to differences in experience, quality, and age. These differences contribute to an intensively customized marketing strategy. According to the generational cohort theory, beliefs, and expectations of the different customers are shaped by social values and the environment (Strauss and Howe, 1991), and these differences emerge according to time. Consequently, these beliefs and expectations influence customer behaviors towards products and services to ensure generational identity (Hung *et al.*, 2007; Kashif and Abdur Rehman, 2014). Specific to technology adoption, the younger generation is more inclined towards Internet banking (Dandapani, Lawrence, and Rodriguez, 2018).

Customer's mobile banking experiences

Human experience can be seen as a mental feeling. In the commercial context, customers' experience is the internal and subjective response of customers to any direct or indirect contact with a company (Meyer and Schwager, 2007). Komulainen and Makkonen (2018) have concluded

recently that customer experiences in digitalized financial services keep on changing. Given the prior studies, some key factors which affect the customer experience in the online web and mobile applications can be listed as: ease of use, customization, convenience/usefulness, enjoyment, telepresence, time distortion and flow (McLean and Wilson, 2016; Hsiao *et al.*, 2016; Martin *et al.*, 2015), utilitarian and hedonic (Kim *et al.*, 2016). McLean *et al.* (2018) recently indicated that enjoyment and timeliness might mediate the relationship between the utilitarian factor made up of customization, convenience, ease of use, and customer experience. The customer reflects the delightful experience once the customer receives the expected features of mobile banking (Sampaio *et al.*, 2017). Therefore, mobile banking expectations are also a meaningful aspect to explore.

Customer's mobile banking expectations

Technology has been actively transforming the way financial transactions were executed (Claessens, Glaessner, and Klingebiel, 2002). There have been different antecedents for mobile banking adoption, and consumers' expectations that are related to effort expectations, performance expectations, or utility expectations. These, in addition to social influence and facilitating conditions, are known as elements of forming a widely acknowledged UTAUT-model (Shaikh and Karjaluo, 2015). Expectations, as such, have been researched rarely as part of so-called self-developed models (Shaikh and Karjaluo, 2015). One example is Amin *et al.* (2006), who have dealt with young consumers' expectations and attitudes and their ability to explain the willingness to adopt mobile banking services in Malaysia. Also, Sangle *et al.* (2011) have dealt with consumer's expectations on mobile banking customer services from the perspective of relationship management services. One of the most recent researches in the study of Komulainen *et al.* (2019), where authors have discussed both the experiences and future expectations of mobile banking services by non-active consumers in the Finnish mobile banking context. This study follows the self-developed model approach, with a qualitative design.

Summarizing the most recent studies on mobile banking

Adoption of mobile banking has been growing in recent years (Chaffey, 2017), especially in developing countries (Anderson, 2010; Boor *et al.*, 2014), and customer experiences in digitalized financial services have been changed (Komulainen and Makkonen, 2018). Table 1 presents a

summary of the results of the recent most prominent studies done on the mobile banking industry around the globe. These studies provide evidence of how recent literature have explored technology adoption, generational issues, customers' experiences, and customers' expectations.

Table 1 Summary of recent studies on mobile banking in the global context

| Author (s) year | Country | Method | Title | Results |
|---------------------------------------|--------------|--------------------|---|--|
| Berraies, yahia, and Hannachi (2017) | Tunisia | Quantitative Study | Identifying the effects of perceived values of Mobile banking applications on customers: Comparative study between baby boomers, generation X, and generation Y | The study examined the effects of perceived values of Mobile banking applications on customers between baby boomers, generation X, and generation Y. The results of this research revealed that quality, price, and emotionally-perceived values of MB applications are predictors of customers' e-trust. Within this spectrum, age represents a moderator in these latter relationships. |
| Deventer, Klerk, and Bevan-Dye (2017) | South Africa | Quantitative Study | Antecedents of attitudes towards and usage behavior of mobile banking amongst Generation Y students | This study examined the influence of perceived ease of use, relative advantage, subjective norms, perceived behavioral control, perceived integrity, and the perceived system quality of mobile banking on South African Generation Y students' attitudes towards and usage behavior of mobile banking. The results indicated that while perceived ease of use, perceived integrity, and the perceived system quality predict Generation Y students' mobile banking usage behavior, subjective norms, perceived behavioral control and the perceived relative advantage of mobile banking predict attitudes towards mobile banking, which, in turn, predict their mobile banking usage behavior. |
| Lissitsa and Kol (2019) | Israel | Quantitative Study | Four generational cohorts and hedonic m-shopping: association between personality traits and purchase intention | The research analyzed varying patterns of personality traits and their effects between generations. The findings showed that personality traits in predicting m-shopping intentions are stronger in baby boomers and generation X than generation Y and Z. |
| McLean, Al-Nabhani, and Wilson (2018) | UK | Quantitative Study | Developing a Mobile Applications Customer Experience Model (MACE)- Implications for Retailers | This study examined the customer experience with retailer m-commerce mobile applications. The result highlighted that customers are conscious of the length of time spent completing an |

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|------------------------------|------------|--------------------|--|--|
| Shareef <i>et al.</i> (2018) | Bangladesh | Quantitative Study | Consumer adoption of mobile banking services: An empirical examination of factors according to adoption stages | activity on an m-commerce mobile application, thus should customers perceive to spend longer than necessary using the application, it resulted in negative customer experience. Additionally, the findings illustrate that gender play a moderating role in the customer experience. The study examined consumer adoption of mobile banking services according to adoption stages. The results showed that Trust has a direct effect on adopting mobile banking in all three stages of mobile banking service. |
| Tan and Leby Lau (2016) | Malaysia | Quantitative Study | Behavioral intention to adopt mobile banking among the millennial generation | The study examined the intention to adopt mobile banking services among Gen Y consumers using the Unified Theory of Acceptance and Use of Technology (UTAUT) model. The results revealed performance expectancy as the most reliable predictor, followed by effort expectancy, perceived risk, and social influence. |

Research methodology

The basic goal in qualitative research, and also in this study, is not to provide statistically generalizable results but richer, more contextualized understanding of aspects of human experiences through particular cases (Polit and Beck, 2010). This study was carried out with a qualitative approach to explore customer mobile banking experiences and expectations in Iran. An in-depth qualitative approach was adopted because (a) previous studies on mobile banking were mostly based on quantitative. Thus, there is a need for qualitative research designs (Shaikh and Karjaluoto, 2015), (b) there was no prior theoretical background at generational cohorts with the focused phenomenon of customer mobile banking experiences and expectations (Agarwal et al., 2009), and (c) qualitative research is an accepted approach to describing individuals' world in their own words, while quantitative approach tends to concentrate on specific behaviors that can be easily quantified (Cozby, 2007). Thus, this qualitative method aimed to explore various perspectives (customer experiences and expectations) of each generation, and discover new thoughts, beliefs, and attitudes by allowing the authors to consider all their ideas and interpret the meaning to the text.

Furthermore, data were collected through face-to-face interviews since the interview is the most widely used data collection tool (Recker, 2013), and the research can be extended by using

all the contents of questions. It allows the researchers to engage with the respondents in a better way to consider all their ideas. Researchers considered interviews to be more suitable choice to catch individual experiences and expectations on mobile banking adoption compared to focus group interviews. First, authors wanted to get deeper individual knowledge from larger semi-structured list of questions and going through larger pool of questions is not optimal if conducting focus groups about more focused discussions on certain topic (Daymon and Hollaway, 2011, pp. 242). Second, researchers also considered the topic being confidential and sensitive and better to be shared with a personal interview (Easterby-Smith *et al.*, 2008, in Daymon and Hollaway, pp. 222)

This study proceeded with the recruitment of active users of mobile banking from Iran with the split of generations (Number of respondents in generations, X=9, Y=10, and Z=8) to understand customer mobile banking experiences as well as expectations among generations. The vibrant society in Iran, along with changing attitudes and preferences (Kamrava, 2001) has motivated the researchers to focus the study on three groups of generations (X, Y, and Z).

Primary data in the form of face-to-face interviews were collected from 27 active mobile banking users, where interviewees could express related contents. The target population of this study was the active adult users of mobile banking in all banks in Iran. The respondents had selected randomly with criteria that interviewers met them first when they came into several public and private banks in Iran. The sample size was determined through a level of saturation (Bowen, 2008). Table 2 explains the respondents' profiles in each generation, generation X males 78%, generation Y males 40%, and generation Z males 50% with a total of 27 active mobile banking users.

Table 2 Respondent profile

| Attributes | Generation X | | Generation Y | | Generation Z | |
|------------------------|--------------|------|--------------|------|--------------|------|
| | N | % | N | % | N | % |
| <i>Gender</i> | | | | | | |
| Males | 7 | 78% | 4 | 40% | 4 | 50% |
| Females | 2 | 22% | 6 | 60% | 4 | 50% |
| <i>Age</i> | | | | | | |
| 20-29 | 0 | 0% | 0 | 0% | 8 | 100% |
| 30-39 | 0 | 0% | 10 | 100% | 0 | 0% |
| More than 40 | 9 | 100% | 0 | 0% | 0 | 0% |
| <i>Education level</i> | | | | | | |
| Diploma | 2 | 22% | 0 | 0% | 0 | 0% |

| | | | | | | |
|--|---|-----|---|-----|---|-----|
| Undergraduate | 0 | 0% | 0 | 0% | 5 | 63% |
| Bachelor | 4 | 44% | 5 | 50% | 3 | 38% |
| Master | 2 | 22% | 4 | 40% | 0 | 0% |
| PhD | 1 | 11% | 1 | 10% | 0 | 0% |
| <i>Per capita monthly income</i> | | | | | | |
| Low | 1 | 12% | 0 | 0 | 1 | 13% |
| Medium | 4 | 44% | 6 | 60% | 5 | 62% |
| High | 4 | 44% | 4 | 40% | 2 | 25% |
| <i>Years of experience in using MB</i> | | | | | | |
| Less than one year | 2 | 22% | 0 | 0 | 0 | 0 |
| One year | 3 | 33% | 3 | 30% | 3 | 38% |
| More than one year | 4 | 45% | 7 | 70% | 5 | 62% |

Note: Generation X (n = 9), Generation Y (n = 10), Generation Z (n = 8)

The interview protocol was adapted from Shannak (2013). The semi-structured format was formulated to allow respondents to express their subjective views (Flick, 2002). Interview questions were revolved around the user experience of mobile banking services such as “why would you like to use mobile banking services?” preferred features of mobile banking, attitude towards mobile payment services, expectations for the future, and the significant concerns regarding mobile banking.

The interview guide was implemented jointly by two authors and industry experts to avoid any bias in the study. Before starting the interviews, respondents were given information about the interview and were asked about their consent to participating. In addition to taking care of respondent’s autonomy, the respondents were informed about the securing their privacy (anonymity and confidentiality). Prior to starting the interview, participants were told that the interview will take about forty minutes of their time and their participation is voluntary, so they have the right to withdraw the interview any time and in any stage of the interview. Also, they were assured that their identities and confidentiality would not be divulged. Industry experts and the atmosphere of the bank were extremely effective for participants to accept taking part in the interview.

After finishing interviews, they were given a small reward (a flash memory worth approximately USD 5.5) as an incentive and gift. Interviews were conducted in Persian Iranian national language to get clear and in-depth information on the phenomenon under study, which is customer mobile banking experiences and expectations. Each interview lasted for an average of forty minutes. All responses were recorded and transcribed for further clarification. Detailed notes

were taken for every interview and translated into English with the help of a bilingual expert (Persian-English) to summarize the categories.

Content analysis was employed to identify a set of mobile banking customer experiences and expectations based on the emphasis of different expressions reported through interviews' verbatim. Thematic coding was employed to analyse the collected data. Microsoft excel was used to facilitate labelling and grouping of texts. Classifying and coding related to transcribed responses were conducted by relative teams of authors and industry experts. All data collected from the entire interviews and they made each code relevant to the topic independently. In the coding process, all steps of open coding, axial coding, and selective coding were conducted. Finally, all codes were reduced into major categories and key concepts were formed. In the case of any discrepancies in codes, it was discussed to achieve the best judgment in every case of disagreement. The in-depth content analysis led to categorizations of experiences and expectations into broader attributes. Furthermore, generational differences were contrasted based on critical themes obtained through generational verbatim.

Findings

Key findings of the current study based on two themes; customer's mobile banking experiences and expectations. Furthermore, researchers presented a comparison that carries differences between generations.

Customer's mobile banking experience

Table 3 explains customer's mobile banking attributes with a comparison among generations. Through a detailed analysis of verbatim, most common attributes were highlighted and listed, such as time-effective, cost-effective, comfortable, useful, life compatible, trustworthy, transparent which further clubbed under key themes including Quick Payments, Spontaneous Availability, and Comfort in Use. The table is produced by calculating and informing the most frequent sub-attributes in each generation within each key attribute (Quick payments, Spontaneous availability, Comfort in Use). Based on the analysis, "Comfort in Use" as an attribute that represents the most identifiable differences among generations.

Table 3 Comparison of the key customer mobile banking experience attributes in different generations

| Attributes | Generation X | Generation Y | Generation Z | Comparison between generations |
|--------------------------|------------------------|----------------|------------------------|--------------------------------|
| Quick payments | Time effective, Useful | Time effective | Time effective, Useful | Minor differences |
| Spontaneous availability | Easy, Cost-effective | Easy | Easy | Minor differences |
| Comfort in use | Life compatible | Trustworthy | Clarity | Notable differences |

Quick payments

Youngest generation (Z) valued the instant payment of a long list of expenses anywhere and anytime. Compared to generation X, who perceive quick payments relatively more convenient as they already experienced standing in long queues in the banking for payments of utility bills.

“Yes, it is very useful, especially for payment. Using mobile payment enables me to pay more quickly than in another way” (Gen Z, Female, 23).

“Yes, because the cell phone is always available for me. It saves time and money. Furthermore, money transfer speed is great” (Gen Z, Male, 21).

“Save time and money on commuting, I can pay every day, anywhere” (Gen Y, Male, 28).

“Mobile banking is faster and cheaper than other services” (Gen X, Male, 50).

“It is always available anytime anywhere. Furthermore, decreasing costs of commuting and being in traffic and don’t waste time are other factors” (Gen X, Male, 39).

Spontaneous availability

Given the expedite growth in mobile technology, generation Y users emphasized the time and money they used to spend while doing in the financial transaction through the traditional banking system, which is rapidly replacing by mobile banking as mobile banking services enabled users and transformed the way users transact in the past.

“Yes, my cell phone is always available anytime for me and it is useful in my daily life and the interaction with mobile financial services is clear and understandable” (Gen Z, Male, 21).

“Mobile phone is always available everywhere, it saves time and money” (Gen Y, Female, 33).

“My cell phone is always available for me everywhere anytime” (Gen X, Male, 46).

Comfort in use

The efforts in the field of technology always put a greater focus on bringing easiness in the life of users. Alike, mobile banking services updated the banking customer experience, hazard-free services, there is no one in the queue, availability of mobile gives comfort in paying through mobile banking all the time. Mobile banking is delivering life compatible solutions with notable trust elements.

“The interaction with the mobile financial services is very clear and understandable” (Gen Z, Male, 21).

“I would like to use every new technology and mobile banking is one of those, it is very valuable for me especially safety and trust in financial transactions” (Gen Y, Female, 33).

“Mobile banking is useful, more comfortable and compatible with my life. Our lives are progressing to the technology services” (Gen X, Male, 42).

Customer mobile banking expectations

Table 4 briefs customer mobile banking expectations to improve customer experiences in a developing country context.

Table 4 Comparison of customer mobile banking expectation attributes

| Attributes | Generation X | Generation Y | Generation Z | Comparison between generations |
|---------------------|------------------------------|---|--------------|--------------------------------|
| Security expectancy | Introduce biometric security | Introduce m-POS (Mobile point-of-sale), Introduce biometric security | | Notable differences |

| | | | | |
|-----------------------|--|--|--|---------------------|
| Interface expectancy | Improve user-friendly tools | Enhance user interface | Improve user-friendly tools, Enhance user interface | Minor differences |
| Process expectancy | Bring simplicity in processes, Launch one application for all accounts | Bring simplicity in processes, Enable international currency exchange, Enable online transactions tracking, Launch one application for all accounts | Enable international currency exchange, Launch one application for all accounts | Some differences |
| Functional expectancy | Give access to corporate accounts, Incentivize mobile financial transactions, Increase money transfer threshold, Launch payable/receivable reminder | Increase money transfer threshold, Incentivize mobile financial transactions | Incentivize mobile financial transactions | Notable differences |

Security expectancy

The older generation is more concerned about the security of mobile banking accounts and usage. Therefore, generation X expects to have the security of their financial transactions through a biometric check for log-in and tracking the record of financial history.

“Biometric security check would be more secure and safe” (Gen X, Male, 46).

On the other hand, generation Y also expects similar security as given by smartphone manufacturing leading brands provide to unlock mobile phones such as fingerprints and facial recognition.

“The password and the identification number have not the security adequate for today's society. I prefer the use of Biometrics systems to determine the identity such as fingerprints” (Gen Y, Female, 30).

Interface expectancy

The younger generation likely has more exposure to the advanced features added by mobile manufacturer leaders. Therefore, generation Z expects to have more user-friendly as the well attractive interface of mobile banking applications.

“I would like to have more attractive the user interface and user-friendly” (Gen Z, Male, 21).

Alternatively, users of the older generation prefer a more compatible interface for a different educated group of users.

“I think we should have a better user interface that be easy for using all of the people on each age and with each education level” (Gen X, Male, 42).

“Almost all banks have the same user interface and I think they should enhance it. The good user interface is very important to me to choose my app from which bank because I must be able to interact well with my mobile phone” (Gen Y, Male, 31).

Process expectancy

Generation Y, as digital natives expect to have one solution to their multiple financial problems, considering the comprehensive technological orientation. Furthermore, they expect to have good systems for tracking their transactions and financial actions through mobile banking.

“I prefer to have all my accounts in one mobile app to manage all of them easily” (Gen Y, Female, 33).

“Providing users access to directly track transactions online is necessary” (Gen Y, Male, 29).

The older generation users always expect to have simple procedures to perform a financial transaction due to limited exposure to this type of technology upfront in their past years.

“I think it is better to have something simpler and less complicated” (Gen X, Male, 53).

The youngest generation users expect to have international currency transfer and use new technological payments.

“All of us need international currency transfer and using Paypal, Mastercard, Visacard that it is not available to us and depends on political decisions.” (Gen Z, Female, 23).

Functional expectancy

Saving cost and improving gains could be achieved through the utilization of technological oriented financial services. Generation Z did not inform other expectations. However, these are the shared issue between different generations.

“I suggest having some additional financial gains on mobile banking transactions.” (Gen Z, Male, 20).

Generation Y users expect to have an increased money transfer threshold for their financial functions. A similar issue was found in generation Z.

“I prefer to there is no limitation of transferring or at least bank increases it per day for my account.” (Gen Y, Male, 29).

In contrast, generation X expects to have an alarm as a new feature to track on an important date (s) of payable (s)/ receivable (s).

“Launch an alert system for reminders checks paid and received the next days when logging on to mobile banking” (Gen X, Male, 51).

Discussion

This study aims at understanding the specific characteristics of customer experiences and expectations with mobile banking among generations in Iran. This study has created more understanding of customer’s mobile banking experiences and expectations in Iran as one of the developing countries. There has been extensive research on customer’s mobile banking experiences in a global context (e.g., Mohammadi, 2015; Alalwan *et al*, 2017; Deventer *et al.*, 2017), yet the earlier studies have underestimated the meaning of generational differences in developing countries. The findings of this study contribute to the earlier literature by filling this research gap.

The overall findings of the study indicate that customer groups from three generations vary in their experiences and expectations. Given the diversity in culture, most dominantly, the generational cohorts, similarities, and differences exist in Iran mobile banking context. The findings of the current study indicated that security is a common factor for both Gen X and Gen Y; thereby, it corroborates the idea of Lissitsa and Kol (2019) and Reisenwitz and Iyer (2009), who indicated that various elements of insecurity characterize generation X. However, our results do not support the previous belief of Lissitsa and Kol (2019) about not existing security risk factor in Gen Y. Furthermore, the findings observed in this study mirror those of previous study (Tan and Leby Lau, 2016) that indicated performance expectancy as the most reliable predictor among the millennial generation in the adoption of mobile banking (Gen Z in the present study).

Theoretical implications

The results of this study highlighted some similarities and differences among generations in their experiences and expectations. The study has identified different kinds of *customer's mobile banking experiences* among different generations. Key emerged experiences were related to *Quick payments*, *Spontaneous availability*, and *Comfort in Use*. More specifically, the findings of this study indicate that according to customers' perspectives in each generation, 'Time effective' related to Quick Payments-experience was an issue affecting all three generations (X, Y, and Z). Similarly, another issue was 'Easy' related to spontaneous availability experience, which was affecting all three generations (X, Y, and Z). Furthermore, the experiences in *Comfort in Use* were notably different among generations, and it can be seen as one of the most critical factors affecting the adoption of mobile banking that banks need to notice when targeting different generations. Our findings are in line with the earlier research (see e.g., Singh and Srivastava, 2018; Glavee-Geo *et al.*, 2017; Moser, 2015) highlighted that time and effort saving, perceived financial cost, perceived usefulness, ease of use, compatibility with lifestyle, trust, and security and privacy, are the most critical factors influencing adoption of mobile banking. However, previous studies are not able to make suggestions on specific similarities and differences of experiences between generations, although the demographic approach has been relatively popular in mobile banking literature (Shaikh and Karjaluoto, 2015). Based on the findings of this study, researchers highlighted the unique contribution towards mobile banking customer experiences and expectations from a developing country context with a comparison among different generational cohorts.

The findings related to Y-generation of this study have illustrated that 'Time Effective' related to *Quick Payments*-experiences, 'Easy' related to *Spontaneous availability*-experiences, and 'Trustworthy' related to *Comfort in Use*-experiences are the essential issues to mobile banking adoption for the Y-generation. The findings are quite similar compared to the findings by Hajiyev and Chang (2017), who have revealed that ease of use, trust, and compatibility with lifestyle is significantly related to the adoption intention of mobile banking and influences actual use of mobile banking in Y-generation. However, our findings are not able to reveal the role of hedonic experiences or motivations, and the findings are different from the recent study of Boonsiritomachai and Pitchayadejanant (2017), who have indicated that hedonic motivation of mobile banking users was the most crucial factor motivating generation Y to adopt mobile banking.

The study has identified different kinds of *customer's mobile banking expectations* among generations X, Y, and Z. Key expectations were identified: *Security, Interface, Process, and Functional*. First, researchers identified some similarities between expectations among generations; 'Introduce Biometric Security' in *Security Expectancy*, 'Enhance User Interface' and 'Improve User-Friendly Tools' in *Interface Expectancy*, 'Launch one Application for all Accounts' in *Process Expectancy* and 'Incentivize Mobile Financial Transactions' in *Functional Expectancy*. Second, researchers were able to identify key expectations of each generation, which were notably different in *Security Expectancy* and *Functional Expectancy*. Older generations X and Y are concerned about the security issue of mobile banking and are expecting biometrics security issues in *Security Expectancy* to be introduced by service providers while the younger generation Z is not informing any security concerns. A specific feature of older generation X compared to other generations is that they are also expecting 'Payable/Receivable Reminders' in *Functional Expectancy*. Generation Z is only expecting 'Incentivize Mobile Financial Transactions,' which is also commonly shared expectations between generations in *Functional Expectancy*.

The identified vital expectations are formed inductively, and as a whole, they can produce a new self-developed framework on understanding better mobile banking experiences, and this kind of study has been rare in earlier studies in mobile banking literature (Shaikh and Karjaluo, 2015).

Managerial implications

The study adds new managerial insights and develops a vivid understanding of business requirements and customer demands and needs in each generation by offering a detailed strategic starting point for management to tailor dynamic customer's experiences and expectations in every generation, especially in Iran.

The results of this study indicate that the most critical challenges for Mobile banking from the perspective of banking system managers are maintaining personal information and customer privacy, Internet security, and customer confidence. Banks in Iran aim to protect customers' privacy among banks' top priorities and policies, prevent unauthorized access by hackers, the commitment to security issues, inform users about the security practices used, clarify the interaction method with other banks and operators in the executive, security, and education fields.

This research provided banks, a clear view of the role of customers' expectations and experiences for the relative performance of mobile banking and future sustainability. The findings of this research offer several ideas for the marketing of mobile banking and for managing mobile banking based on each generation (X, Y, and Z). The findings of this study potentially help banking executives and bank managers to recognize and tailor those mobile banking customers' needs. The findings of this study opened numerous avenues to improve customer mobile banking experiences in Iran and other developing countries. Additionally, on the management of mobile banking, banking managers can understand the difference among generations while enhancing mobile banking applications to improve customer service experience. These findings are the strategic avenues to customize the set of services based on customer profiles within a developing country context. The emphasis on every generation could vary from every targeted generation. Strategic managers at banks in Iran specifically should consider the findings of this study to improve overall customer experiences. Bank managers in Iran should focus more on other technologies related to mobile banking and enhance the broader e-commerce regulations by Iranian banks. Customer protection leads to solving other issues such as unfair and deceptive trade practices by suppliers, unauthorized access, and usage by hackers or other system failures.

Through this study, researchers want to raise also a general discussion about the relevant role of mobile banking in the digital financial ecosystem in Iran. Most banks are developing mobile banking for individual customers, not corporate in Iran. Furthermore, they consider that their mobile banking services are of high quality, high speed, high support, high security, and always available. Moreover, they guarantee high-security transactions through mobile banking. In general, most commercial banks are expanding their services to operational efficiency (costs reducing), match competition in the market, or even beat the competition in the market, spread market sales, and share, and respond to market and customer demands and needs. Non-commercial banks focus on responding to market and customer demands in the first option, and the last option is to compete in the market and expand market sales and share. This issue affects executives in their attitude toward product customization and paying more attention to the demands of customers, especially in new technologies.

Limitations and scope for future research

This research comes with certain limitations. First, this research aimed to explore customer mobile experiences and expectations among different generations using in-depth interviews from a developing country context of Iran. Future research can explore customer experiences, similarly, in other culturally different developing countries and compare them as Hassan and Wood (2020) indicated that customer perceptions of mobile banking could be influenced by the country culture. Second, the respondents in this study have included only actual users of Mobile Banking related to mobile banking services in Iran. Thus, future researchers can bring in the perspective of potential, non-active mobile customers (who are bank customers and do not use mobile services for banking transactions) as well as targeting focus on customers who are in the continued usage phase (see Komulainen *et al.*, 2019). Generational differences may be very different among non-active customers compared to active customers, future study can explore this. Third, the current study has explored experiences and expectations of mobile banking customers while future researchers can explore further, for example, the mobile banking users' intentions to recommend mobile banking services to non-users. Even further, how to engage non-active consumers in mobile banking services has been one of the emerged topics in developed countries (Komulainen *et al.*, 2019), and adopting this perspective is a relevant future research topic in developing countries context.

This study has focused on generational issues in mobile banking experiences. However, researchers believe that further studies could be extended to get more understanding of the Omni-channel approach where the discussions on customer experiences in Omni-channel banking services promise new research avenue and where new knowledge related generational differences is needed (Komulainen and Makkonen, 2018).

This study used a qualitative approach to build up theoretical foundations around mobile banking in a developing country context, while more large-scale empirical investigations and quantitative surveys would be of great value for future research to achieve classical statistical generalizations (Polit and Beck, 2010). In future studies, it would also be valuable to develop a conceptual framework on mobile banking adoption in the developing country context. The conceptual framework has inspired researchers by Choudrie *et al.* (2017) on mobile banking adoption related to older consumers, which could be developed further, focusing more on generational issues and considering developing country-context. Another inspiring framework is provided by Komulainen *et al.* (2019), which synthesizes the experiences and future expectations

of mobile banking services, and this approach could also be adopted when developing future conceptual frameworks.

Finally, banks need to move towards the creation of new financial ecosystems that operate internally and can transfer money in different banking systems around the country and the world. Marketing growth in financial inclusion community appeals to foster the digital financial ecosystems (Sitbon, 2015). This new ecosystem must also be in line with the expectations of the mobile generation. An essential step in this ecosystem, in addition to interconnecting internal resources, is the establishment of a link between financial services around the world. Researchers believe that in the future research ecosystem approach could be beneficial in the literature of mobile banking in developing countries.

References

- Aboelmaged, M. and Gebba, T. R. (2013), "Mobile banking adoption: an examination of technology acceptance model and theory of planned behavior", *International Journal of Business Research and Development*, Vol. 2 No. 1, pp. 35-55.
- Agarwal, R., Rastogi, S. and Mehrotra, A. (2009), "Customers' perspectives regarding e-banking in an emerging economy", *Journal of Retailing and Consumer Services*, Vol. 16 No. 5, pp. 340-351.
- Ahmadi Danyali, A. (2018), "Factors influencing customers' change of behaviors from online banking to mobile banking in Tejarat Bank, Iran", *Journal of Organizational Change Management*, Vol. 31 No. 6, pp. 1226-1233.
- Alalwan, A., Dwivedi, Y.K. and Rana, N.P. (2017). "Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust", *International Journal of Information Management*, Vol. 37 No. 3, pp. 99-110.
- Amin, H., Hamid, M.R.A., Tanakinjal, G.H. and Lada, S. (2006). "Undergraduate attitudes and expectations for mobile banking", *Journal of Internet Banking and Commerce*, Vol. 11 No. 3, 1-10.
- Anderson, J. (2010), "M-banking in developing markets: competitive and regulatory implications", *Info*, Vol. 12 No. 1, pp. 18-25.

- Bassiouni, D. H. and Hackley, C. (2014), "Generation Z'children's adaptation to digital consumer culture: A critical literature review", *Journal of Customer Behaviour*, Vol. 13 No. 2, pp. 113-133.
- Beigina, A. R., Besheli, A. S., Soluklu, M. E. and Ahmadi, M. (2011). "Assessing the mobile banking adoption based on the decomposed theory of planned behavior", *European Journal of Economics, Finance and Administrative Sciences*, Vol. 28 No. 1, pp. 7-15.
- Berraies, S., Ben Yahia, K. and Hannachi, M. (2017), "Identifying the effects of perceived values of mobile banking applications on customers: Comparative study between baby boomers, generation X and generation Y", *International Journal of Bank Marketing*, Vol. 35 No. 6, pp.1018-1038.
- Boonsiritomachai, W. and Pitchayadejanant, K. (2017), "Determinants affecting mobile banking adoption by generation Y based on the Unified Theory of Acceptance and Use of Technology Model modified by the Technology Acceptance Model concept", *Kasetsart Journal of Social Sciences*, pp. 1-10.
- Boor, P., Oliveira, P. and Veloso, F. (2014), "Users as innovators in developing countries: The global sources of innovation and diffusion in mobile banking services", *Research Policy*, Vol. 43 No. 9, pp. 1594-1607.
- Bowen, G. A. (2008), "Naturalistic inquiry and the saturation concept: a research note". *Qualitative research*, Vol. 8 No. 1, pp. 137-152.
- Claessens, S., Glaessner, T. and Klingebiel, D. (2002), "Electronic finance: reshaping the financial landscape around the world", *Journal of Financial Services Research*, Vol. 22 No. 1-2, pp. 29-61.
- Chang, C. T., Hajiyev, J. and Su, C. R. (2017), "Examining the students' behavioral intention to use e-learning in Azerbaijan? The general extended technology acceptance model for e-learning approach", *Computers and Education*, Vol. 111 (August), pp. 128-143.
- Chaffey, D. and Ellis-Chadwick, F. (2017), "Digital Marketing." 6th ed. Pearson Education Ltd, United Kingdom.
- Chawla, D. and Joshi, H. (2017), "Consumer perspectives about mobile banking adoption in India – a cluster analysis", *International Journal of Bank Marketing*, Vol. 35 No. 4, pp. 616-636.

- Chitungo, S. K. and Munongo, S. (2013), “Extending the technology acceptance model to mobile banking adoption in rural Zimbabwe”, *Journal of Business Administration and Education*, Vol. 3 No. 1, pp. 51-79.
- Chung, N. and Kwon, S.J. (2009), “The effect of customers' mobile experience and technical support on the intention to use mobile banking”, *Cyber Psychology and Behavior*, Vol. 12 No. 5, pp. 539-543.
- Cozby, P.C. (2007). *Methods in behavioral research*, McGraw-Hill.
- Dandapani, K., Lawrence, E. R. and Rodriguez, J. (2018), “Determinants of Transactional Internet Banking”, *Journal of Financial Services Research*, pp. 1-25.
- Daymon, C. and Holloway. I. (2011), “Qualitative research methods in public relations and marketing communications”, Second Edition. Routledge.
- Deb, M. and Agrawal, A. (2017), “Factors impacting the adoption of m-banking: understanding brand India’s potential for financial inclusion”, *Journal of Asia Business Studies*, Vol. 11 No. 1, pp. 22-40.
- Deventer, M., Klerk, N. and Bevan-Dye, A. (2017). “Antecedents of attitudes towards and usage behavior of mobile banking amongst Generation Y students”, *Banks and Bank Systems*, Vol 12 No. 2, pp. 78-90.
- Easterby-Smith, M., Thorpe, R. and Jackson, P.R. (2008), “Management Research”, 3rd edn. London: Sage. In Daymon, C. and Holloway. I. (2011), “Qualitative research methods in public relations and marketing communications”, Second Edition. Routledge.
- Farah, M., Hasni, M. and Abbas, A. (2018), “Mobile-banking adoption: empirical evidence from the banking sector in Pakistan”, *International Journal of Bank Marketing*, Vol. 36 No. 7, pp. 1386-1413.
- Flick, U. (2002), *An Introduction to Qualitative Research*, Sage, London.
- Glavee-Geo, R., Shaikh, A.A. and Karjaluoto, H. (2017). “Mobile banking services adoption in Pakistan: are there gender differences?”, *International Journal of Bank Marketing*, Vol. 35 No. 7, pp. 1090-1114.
- Hajiyev, J. and Chang, C-T. (2017). “Gen Y Members' Mobile Banking Adoption Intention and Actual Use in Azerbaijan and Turkey: The Technology Acceptance Model and Social Cognitive Theory Approach”, *Journal of Internet Banking and Commerce*, Vol. 22 No. 7, pp. 1-33.

- Hanafizadeh, P., Behboudi, M., Khoshksaray, A. and Shirkhani Tabar, M. (2014), "Mobile-banking adoption by Iranian bank clients", *Telematics and Informatics*, Vol. 31 No. 1, pp. 62-78.
- Hassan, H.E. and Wood, V.R. (2020). "Does country culture influence consumers' perceptions toward mobile banking? A comparison between Egypt and the United States", *Telematics and Informatics*, Vol. 46, 101312.
- Hsiao, C.H., Chang, J.J. and Tang, K.Y. (2016), "Exploring the influential factors in continuance usage of mobile social apps: Satisfaction, habit, and customer value perspectives", *Telematics and Informatics*, Vol. 33 No 2, pp. 342-355.
- Hung, K., Gu, F. and Yim, C. (2007), "A social institutional approach to identifying generation cohorts in China with a comparison with American consumers", *Journal of International Business Studies*, Vol. 38 No. 5, pp. 836-853.
- Komulainen, H. and Makkonen, H. (2018), "Customer experience in omni-channel banking services", *Journal of Financial Services Marketing*, Vol. 23 No. 3-4, pp. 190-199.
- Komulainen, H., Saraniemi, S. and Ulkuniemi, P. (2019), "Engaging non-active consumers to use mobile financial services – A developed country perspective" in *Marketing and Mobile Financial Services - A Global Perspective on Digital Banking Consumer Behavior*. Shaikh A. and Karjaluoto, H. (Eds). Routledge.
- Kamrava, M. (2001), "The civil society discourse in Iran", *British Journal of Middle Eastern Studies*, Vol. 28 No. 2, pp. 165-185.
- Kashif, M. and Abdur Rehman, M. (2014), "Expected service quality of utility stores in Pakistan", *International Journal of Quality and Service Sciences*, Vol. 6 No. 4, pp. 309-325.
- Kim, S. C., Yoon, D. and Han, E. K. (2016), "Antecedents of mobile app usage among smartphone users", *Journal of Marketing Communications*, Vol. 22 No. 6, pp. 653-670.
- Kleijnen, M., Wetzelsm, M. and Ruyter, KD. (2004), "Consumer acceptance of wireless finance", *Journal of Financial Services Marketing*, Vol. 8 No. 3, pp. 206-217.
- Koksal, M.H. (2016), "The intentions of Lebanese consumers to adopt mobile banking", *International Journal of Bank Marketing*, Vol. 34 No. 3, pp. 327-346.
- Kumar, A. and Lim, H. (2008), "Age differences in mobile service perceptions: Comparison of Generation Y and Baby Boomers", *Journal of Services Marketing*, Vol. 22 No. 7, pp. 568-577.

- LaSalle, D. and Britton, T. A. (2003), "Priceless: Turning ordinary products into extraordinary experiences", Boston, MA: Harvard Business School Press.
- Laukkanen, T. and Kiviniemi, V. (2010). "The role of information in mobile banking resistance", *International Journal of Bank Marketing*, Vol. 28 No. 5, pp. 372-388.
- Laukkanen, T. (2007), "Internet vs mobile banking: comparing customer value perceptions", *Business Process Management Journal*, Vol. 13 No. 6, pp. 788-797.
- Lee, Y., Park, J., Chung, N. and Blakeney, A. (2011), "A unified perspective on the factors influencing usage intention toward mobile financial services", *Journal of Business Research*, Vol. 65 No. 11, pp. 1590-1599.
- Lewis, NK., Palmer, A. and Moll, A. (2010). "Predicting young consumers' take up of mobile banking services", *International Journal of Bank Marketing*, Vol. 28 No. 5, pp. 410-432.
- Lissitsa, S. and Kol, O. (2019). "Four generational cohorts and hedonic m-shopping: association between personality traits and purchase intention", *Electronic Commerce Research*.
- Luo, X., Li, H., Zhang, J. and Shim, J. P. (2010). "Examining multi-dimensional trust and multi-faceted risk in initial acceptance of emerging technologies: An empirical study of mobile banking services", *Decision support systems*, Vol. 49 No. 2, pp. 222-234.
- Luarn, P. and Lin, H-H. (2005). "Toward an understanding of the behavioral intention to use mobile banking", *Computers in Human Behavior*, Vol. 21 No. 6, pp. 873-891.
- Martin, J., Mortimer, G. and Andrews, L. (2015), "Re-examining online customer experience to include purchase frequency and perceived risk", *Journal of Retailing and Consumer Services*, Vol. 25 No 7, pp. 81-95.
- McLean, G., Al-Nabhani, K. and Wilson, A. (2018), "Developing a mobile application customer experience model (MACE) - implications for retailers", *Journal of Business Research*, Vol. 85 (April), pp. 325-336.
- Mclean, G. and Wilson, A. (2016), "Evolving the online customer experience ... is there a role for online customer support?", *Computers in Human Behavior*, Vol. 60 (July), pp. 602-610.
- Meyer, C. and Schwager, A. (2007), "Understanding customer experience", *Harvard Business Review*, Vol. 85 No. 2, pp. 116-126.
- Mohammadi, H. (2015), "A study of mobile banking usage in Iran", *International Journal of Bank Marketing*, Vol. 33 No. 6, pp. 733-759.

- Morris, M.G. and Venkatesh, V. (2000), "Age Differences in Technology Adoption Decisions: Implications for a Changing Workforce", *Personnel Psychology*, Vol. 53 No. 2, pp. 375-403.
- Moser, F. (2015), "Mobile Banking", *International Journal of Bank Marketing*, Vol. 33 No. 2, pp. 162-177.
- Moutinho, L., and Smith, A. (2000), "Modelling bank customer satisfaction through mediation of attitudes towards human and automated banking", *International Journal of Bank Marketing*, Vol. 18 No. 3, pp. 124-134.
- Ono, A., Nakamura, A., Okuno, A. and Sumikawa, M. (2012), "Consumer Motivations in Browsing Online Stores Mobile Devices", *International Journal of Electronic Commerce*, Vol. 16 No. 4, pp. 153-178.
- Polit, D.F., and Beck, C.T. (2010), "Generalization in quantitative and qualitative research: Myths and strategies", *International Journal of Nursing Studies*, Vol 47, pp. 1451-1458.
- Recker, J. (2013), "Scientific Research in Information Systems", A Beginner's Guide (Springer).
- Reisenwitz, T.H. and Iyer, R. (2009), "Differences in Generation X and Generation Y: Implications for the organization and marketers", *The Marketing Management Journal*, Vol. 19 No. 2, pp. 91-103.
- Roig, J.C.F., Garcia, J.S., Tena, M.A.M. and Monzonis, J.L. (2006), "Customer perceived value in banking services", *International Journal of Bank Marketing*, Vol. 24 No. 5, pp. 266-283.
- Sadeghi, T. and Heidarzadeh Hanzaae, K. (2010), "Customer satisfaction factors (CSFs) with online banking services in an Islamic country: IR Iran", *Journal of Islamic Marketing*, Vol. 1 No. 3, pp. 249-267.
- Sampaio, C. H., Ladeira, W. J. and Santini, F. D. O. (2017), "Apps for mobile banking and customer satisfaction: a cross-cultural study", *International Journal of Bank Marketing*, Vol. 35 No. 7, pp. 1133-1153.
- Sangle, P.S. and Awasthi, P. (2011), "Consumer's expectations from mobile CRM services: a banking context", *Business Process Management Journal*, Vol. 17 No. 6, 898-918.
- Shaikh, A. A. and Karjaluo, H. (2015), "Mobile banking adoption: A literature review", *Telematics and Informatics*, Vol. 32 No. 1, pp. 129-142.

- Shannak, R. O. (2013), "Key issues in e-banking strengths and weaknesses: the case of two Jordanian banks", *European Scientific Journal*, Vol. 9 No. 7, pp. 239-263.
- Shareef, M. A., Baabdullah, A., Dutta, S., Kumar, V., and Dwivedi, Y. K. (2018), "Consumer adoption of mobile banking services: An empirical examination of factors according to adoption stages", *Journal of Retailing and Consumer Services*, Vol. 43, pp. 54-67.
- Singh, S. and Srivastava, R.K. (2018), "Predicting the intention to use mobile banking in India", *International Journal of Bank Marketing*, Vol. 36 No. 2, pp. 357-378.
- Sitbon, E. (2015), "Addressing competition bottlenecks in digital financial ecosystems", *Journal of Payments Strategy & Systems*, Vol. 9 No. 3, pp. 351-365.
- Strauss, W. and Howe, N. (1991), "Generations: The History of American's Future", *Quill*, New York, NY, pp. 1584-2069.
- Suoranta, M. (2003), "Adoption of mobile banking in Finland", *Jyväskylä Studies in Business and Economics* 28, Jyväskylä, Finland.
- Tan, E. and Leby Lau, J. (2016), "Behavioural intention to adopt mobile banking among the millennial generation", *Young Consumers*, Vol. 17 No. 1, pp. 18-31.
- Yang, K. (2005), "Exploring factors affecting the adoption of mobile commerce in Singapore", *Telematics and Informatics*, Vol. 22 No. 3, pp. 257-277.
- Yang, J., Cheng, L. and Luo, X. (2009), "A comparative study on e-banking services between China and USA", *International Journal of Electronic Finance*, Vol. 3 No. 3, pp. 235-252.
- Yu, TK. and Fang, K. (2009), "Measuring the post-adoption customer perception of mobile banking services", *Cyber Psychology and Behavior*, Vol. 12 No. 1, pp. 33-35.