# "Influence of perceived integrity and perceived system quality on Generation Y students' perceived trust in mobile banking in South Africa"

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Marko van Deventer (South Africa), Natasha de Klerk (South Africa), Ayesha Bevan-Dye (South Africa)

# Influence of perceived integrity and perceived system quality on Generation Y students' perceived trust in mobile banking in South Africa

## Abstract

Mobile banking represents an important addition to retail banks' digital banking channels and a salient tool for servicing both current and future customers. However, given the cybernetic nature of mobile banking, there is a certain degree of uncertainty and perceived risk associated with the use thereof. This uncertainty and perceived risk elevate the importance of trust in fostering mobile banking adoption. The Generation Y cohort, which encompasses today's youth, represents an important current and future banking segment and their adoption of mobile banking channels could have a significant effect on the cost of servicing members of this cohort. Understanding the factors that positively contribute to the Generation Y cohort's trust in mobile banking will help retail banks to better market their mobile banking channels to members of this cohort and thereby foster greater adoption of such channels. The study reported in this article considers the influence of the perceived integrity of the bank and the perceived system quality of mobile banking on Generation Y students' perceived trust in mobile banking in the South African context. Data were gathered from a convenience sample of 334 students registered at three public South African university campuses using a self-administered questionnaire. The gathered data were analyzed using descriptive statistics, correlation analysis and bivariate regression analysis. The results of the study suggest that Generation Y students' perceived integrity of a bank, together with the perceived system quality of mobile banking, has a significant positive influence on their perceived trust in mobile banking.

## Introduction

Globally, retail banks are looking to digitalize their banking service channels, including the offered mobile banking services (Ernst & Young, 2015). Mobile banking essentially involves retail banks offering their services utilizing the wireless Internet gateway (WIG) and the wireless application protocol (WAP) via mobile applications downloaded onto customers' mobile devices, such as iPads or tablets, mobile phones, and personal digital assistants (PDAs) (Nel et al., 2012). Mobile banking is a revolutionary technology that enables service cost reduction, while simultaneously maintaining and improving customer service (Ernst & Young, 2015). In emerging economies such as South Africa cost-effective digital banking channels including mobile banking provide retail banks with the opportunity to attract and attain new customers. Despite the obvious advantages offered by digital banking channels to both retail banks and customers, retail banks need to recognize that the use of such channels increases their interpersonal distance from customers, which may create trust issues (Benamati & Serva, 2007).

Building trust in any new digital channel should be thought of as a cumulative process, whereby successive successful experiences are likely to lead to greater familiarity with a technology and, gradually, a greater level of trust in that technology. In terms of mobile banking, there are two particularly important aspects that are thought to allay customers' perceived risks and foster greater trust, namely the integrity of the retail bank itself and the system quality of the mobile banking channel that it offers.

Worldwide and in South Africa, the Generation Y cohort represents a significant current and future market segment for an array of industries, including the retail banking sector. Generation Y is demarcated as those individuals born between 1986 and 2005 (Markert, 2004). In South Africa, individuals from this cohort comprised roughly 38 percent of the country's total population of 55 908 900 in 2016 (Statistics South Africa, 2016). As a market segment, members of this cohort, many of whom are first-time bankers, demand the latest technological delivery channels to undertake their banking transactions (KPMG South Africa, 2014). This generation is driving digital finance services, given that they are categorised as early adopters, familiar and comfortable with convenient and transparent self-service digital channels and choosing to take more active control on the transaction process (IT news Africa, 2015). This, coupled with the powerful aggregate spending of Generation Y (Cui et al., 2003), and them being in a position to become the most affluent generation to date (Bleedorn, 2013), suggests that customers from this market segment are soon to be the most salient customers of retail banks (Cox et al.,

Marko van Deventer, Dr., School of Economic Sciences, North-West University, South Africa.
Natasha de Klerk, Prof., School of Economic Sciences, North-West University, South Africa.
Ayesha Bevan-Dye, Prof., School of Economic Sciences, North-West University, South Africa.

2008). Therefore, it is of significant importance that key retail banking role players, such as business and financial analysts, marketers, strategists and policy makers, devise, reconsider, and adjust mobile banking marketing and strategic plans, business processes and models, pilot projects and awareness programs geared towards these individuals.

As such, the purpose of the study reported in this article was to determine the influence of the integrity of the retail bank itself and the system quality of the mobile banking channel that it offers on Generation Y individuals' trust in mobile banking channels in the South African context.

## 1. Literature review

### 1.1. Perceived trust of mobile banking channels.

There is no doubt that the uptake of mobile retailing, including the use of mobile financial services will continue to grow. However, the trust issue is likely to discourage many potential customers and, consequently, seriously impede that growth. This suggests that as mobile transactions through the Internet increase and mature, success is likely to be primarily dependent on achieving and upholding a certain level of trust (Roy et al., 2001). Kim et al. (2009) define trust as an individual's psychological expectation that a trusted party will not behave opportunistically. As such, trust represents the willingness of an individual to be open and vulnerable to the actions of other people. Yousafzai et al. (2003) define trust in digital banking channels as a psychological state that influences a customers's readiness to undertake banking transactions digitally, as well as their anticipation that their retail bank will stay true to their commitments, irrespective of the customer's ability to monitor or control the retail bank's actions.

Kim et al. (2009) propose that risk and interdependency are the required conditions of trust and point out that trust is suggestively conductive to psychological forces such as perceived probability, attitudes, willingness and expectations. Zhou (2013) opines that trust is conceivably a more fundamental element in online economic relationship building. This is because the online environment involves greater risks and uncertainty, given a greater threat of potential incongruous opportunistic behaviors, such as failure to adequately deliver goods and services as promised and the misappropriation and unauthorized dissemination of personal information. The prominence of trust in mobile banking is expected, as this digital banking channel shares the same, if not more, risks that are associated with any electronic commerce (e-commerce) activity. The added risk involved in mobile banking is, of course, the risk of significant financial losses. Nor and Pearson (2008) explain that mobile banking services, as with any e-commerce service, are delivered online and processed virtually, without any personal contact with

a retail bank representative. As a result, questions are raised as to whether the financial transactions were properly executed and processed. This issue of trust in the online environment is nothing new and has been evident since the early days of the commercialization of the Internet in the 1990s. For example, McKnight et al. (1998) noted that building consumer trust in the online environment is both costly and time consuming.

### 1.2. Integrity of retail banks with mobile banking channels.
The principles of technology, security, authentication and trust are pivotal in the mobile banking environment. Furthermore, the integrity of the retail banks offering mobile banking plays an important role in influencing customers' trust in such channels. Moreover, integrity is essential for building customer relationships in any retail banking situation, given that customers save and deposit their hard-earned money in the bank, and as a result, give retail banks control over their assets. A relationship between the customer and the retail bank is not likely to succeed and continue if customers did not trust the activities of their retail bank (Lin, 2011). In addition, the integrity of retail banks is likely to foster trust in new banking channels, including mobile banking (Virkkunen, 2004). As such, it is essential that retail banks consider the integrity aspect to gain customers' support and confidence in using their different banking channels, including new digital channels such as mobile banking.

Integrity, in the context of retail banking, refers to a bank's truthfulness in their dealings with their consumers, their readiness to honor commitments, as well as their ethical behavior and ability to fulfil promises in terms of offering a safe and secure virtual banking environment (Nor & Pearson, 2008). Retail banks that have earned a reputation for having integrity are likely to find that consumers who made use of their physical infrastructure and services are more likely to trust their new digital channel and, as such, are more likely to adopt such channels. According to Lin (2011), the rules governing integrity in the retail mobile banking environment include the provision of accurate and timely information, keeping customer commitments and assuring confidentiality of personal information. Adherence to these rules will help to bolster the perceived integrity of the retail bank and foster trust in its mobile channels. Indeed, a number of international studies (Mayer et al., 1995; Nor & Pearson, 2008; Hong & Cho, 2011; Ya'gobi & Rad, 2015) accentuate the significance of integrity in building trust in a retail banking setting, including trust in mobile channels.

### 1.3. System quality of mobile banking.
System quality denotes the ease of use, ease of navigation, visual appearance (Gu et al., 2009) and speed of access of mobile banking (Kleijnen et al., 2004). Customers using mobile banking may find it diffi-

cult to search for information given certain drawbacks of mobile devices, such as inconvenient input methods and small screens. This stresses the significance of having an interface that offers easy navigation, a clear layout and a system that prompts responses (Zhou, 2011). If a retail bank's mobile systems are complicated to use or have a flimsy and ineffective interface design, customers may think that the retail bank is incapable of providing quality mobile services (Zhou, 2013). Alternatively, they may just feel that the retail bank has simply not spent sufficient time and effort into their mobile banking system (Zhou, 2011). In their study, Vance et al. (2008) note that system quality, including the visual appearance and navigational structure influences users' trust in mobile commerce technologies. In addition, several other studies (Zahedi & Song, 2008; Zhou, 2011; Zhou, 2013) support the influence of system quality on trust.

Other important determinants of mobile banking system quality include the provision of relevant and accurate information (information quality) and safety features with regards to legal structures and technological advances (structural assurances). Zhou (2011) explains that because of users' lack of direct experience with mobile banking, their perceptions of the system's information quality and security are likely to be important factors in determining their trust in and the consequent success of such channels. Talukder et al. (2014) maintain that system quality represents both the quality of the information being provided to the customers, as well as the technical quality of the mobile system itself.

Information quality refers to timely, sufficient, accurate and relevant information. Mobile banking customers expect, amongst other things, to be able to make mobile account payments and access their financial records at any time and from anywhere. If this information is out-of-date, incomplete, inaccurate or irrelevant, customers may question the retail banks' capability to offer quality mobile banking services. This may influence their trust in the retail bank, as well as the mobile banking system as a whole (Zhou, 2013). A number of studies (Lin et al., 2011; Zhou, 2011; Zhou, 2013) confirm the influence of information quality on trust in mobile banking and indicate that information quality positively influences trust.

Contracts, regulations, policies, laws, agreements, and feedback forums, all of which are forms of structural assurances, enhance initial trust between the parties engaged in a relationship (Kim et al., 2009). Digital banking systems, including the mobile banking system, may be perceived by some customers as being risky. As such, certain assurances as to its safety need to be put in place in order to encourage adoption. To establish structural assurance, guarantees, together with legal and technological safeguards that improve the trustworthiness of the cybernetic environment should be implemented (Nor & Pearson, 2008). Kim et al. (2009) advise that these formalised structural assurances should be available to discourage opportunistic behaviors and, more importantly, build and boost confidence in mobile digital services, including mobile banking. In comparison to other digital banking channels, mobile banking is built on mobile networks, which are thought to be more at risk of information interception and hacker attacks. In addition, Trojan horses and viruses may also be present on mobile devices (Zhou, 2011). Therefore, to address and reduce these system concerns, as well as foster trust in the mobile banking system, adequate structural assurances should be provided (Gu et al., 2009). Research in the mobile banking environment (Gu et al., 2009; Kim et al., 2009) verifies the relationship between structural assurance and trust in mobile banking.

## 2. Methodology

**2.1. Target population, sampling frame and sampling method.** The target population relevant to this study was defined as 18 to 24 year old male and female students registered at South African public higher education institutions (HEIs). The initial sampling frame included the 26 registered South African public HEIs, which was reduced to three HEI campuses situated in the Gauteng province – one from a comprehensive university, one from a traditional university and one from a university of technology employing a judgement sampling method. Subsequently, a non-probability convenience sample of 450 students across the three campuses was selected, which is in line with sample sizes of similar published studies, such as a sample size of 435 (Akturan & Tezcan, 2012) and 403 (Hanafizadeh et al., 2014).

**2.2. Research instrument and data collection procedure.** To collect the necessary data, a structured self-administered questionnaire was used. Generation Y students' perceived integrity of the mobile bank (three items) and their perceived trust in mobile banking (three items) was measured using the Internet banking adoption scale (Nor & Pearson, 2008) that was adapted for mobile banking. Their perceived system quality of mobile banking (eight items) was measured using the initial trust in mobile banking scale (Zhou, 2011). A six-point Likert scale, which ranged from strongly disagree (1) to strongly agree (6) was used to measure the scaled responses. Furthermore, the questionnaire incorporated a section designed for demographic questions and included a cover letter.

Prior to questionnaire distribution to the main sample, a pilot test of the questionnaire was run using a convenience sample of 58 students enrolled at a South African HEI campus that did not form part of the main study's sampling frame. Cronbach alpha values of 0.857, 0.862, and 0.885 were returned for the perceived integrity, perceived system quality and perceived trust constructs, respectively, suggesting satisfactory internal-consistency reliability (Pallant, 2010). Following pilot testing, the questionnaire was administered to the main sample.

A lecturer at each of the three campuses was contacted telephonically and asked to act as the custodian to students on that campus. Participating lecturers were shown a copy of the questionnaire and asked to screen through it to ascertain that none of the questions asked breached any ethical boundaries. Subsequently, field-workers distributed the questionnaires to the students at each of the three campuses. Students were duly notified that participation was on a voluntary basis only and that the confidentiality of the information provided would be assured.

## 3. Results

Of the 450 questionnaires administered across the three selected campuses, 334 complete and usable questionnaires were returned, which results in a 74 percent response rate. The sample comprised each of the age groups as defined in the target population. There were less male (42%) than female (58%) participants in the sample. In terms of race, the majority of the participants were African (84%), followed by those who identified themselves as White (11%), Indian/Asian (3%) and Coloured (2%). The sample included ten of South Africa's 11 official language groups, with majority indicating being Sesotho, followed by those who indicated being IsiZulu (15%) and Setswana (13%). Each of the country's nine provinces was represented in the sample, with majority of the participants originating from Gauteng (57%) and the least from the Western Cape (2%). A description of the sample is reported on in Table 1.

Table 1. Sample description

| Age | % | Gender | % | Ethnicity | % | Language | % | Home province | % |
|---|---|---|---|---|---|---|---|---|---|
| 18 | 7 | Male | 42 | African | 84 | Afrikaans | 9 | Eastern Cape | 2 |
| 19 | 14 | Female | 58 | Coloured | 2 | English | 8 | Free State | 11 |
| 20 | 26 | | | Indian/Asian | 3 | IsiXhosa | 7 | Gauteng | 57 |
| 21 | 25 | | | White | 11 | IsiZulu | 15 | KwaZulu-Natal | 3 |
| 22 | 14 | | | | | Sepedi | 8 | Limpopo | 11 |
| 23 | 9 | | | | | Sesotho | 26 | Mpumalanga | 6 |
| 24 | 5 | | | | | Setswana | 13 | Northern Cape | 1 |
| | | | | | | SiSwati | 4 | North-West | 7 |
| | | | | | | Tshivenda | 5 | Western Cape | 2 |
| | | | | | | Xitsonga | 5 | | |

A Cronbach alpha value of 0.877 was calculated for the perceived integrity construct, 0.915 for the perceived system quality construct and 0.893 for the perceived trust construct. These values suggest internal-consistency reliability of the scales in the main survey.

Means above 3 were computed for each of the constructs. The computed means and standard deviations are outlined in Table 2.

Table 2. Descriptive statistics

| Construct | Mean | Standard deviation |
|---|---|---|
| Perceived integrity | 3.949 | 1.104 |
| Banks that provide mobile banking are honest with their customers | 3.925 | 1.246 |
| Banks that provide mobile banking keep promises they make | 3.850 | 1.260 |
| Banks that provide mobile banking act ethically in dealing with their customers | 4.072 | 1.191 |
| Perceived system quality | 4.490 | 0.927 |
| I think mobile banking has enough safeguards to make me feel comfortable using it | 4.323 | 1.307 |
| I think mobile banking has enough legal structures to adequately protect me when using it | 4.204 | 1.271 |
| I think mobile banking has enough technological advances to adequately protect me when using it | 4.275 | 1.270 |
| I think mobile banking can provide me with information relevant to my needs | 4.629 | 1.096 |
| I think mobile banking can provide me with sufficient information | 4.647 | 1.063 |
| I think mobile banking can provide me with accurate information | 4.614 | 1.098 |
| I think mobile banking quickly loads all text and graphics | 4.488 | 1.146 |
| I think mobile banking is easy to navigate | 4.737 | 1.081 |
| Perceived trust | 4.304 | 1.259 |
| I trust mobile banking | 4.327 | 1.424 |
| I can always rely on mobile banking for my banking activities | 4.249 | 1.359 |
| I will feel comfortable using mobile banking to conduct my banking activities | 4.336 | 1.377 |

The results in Table 2 suggest that, in general, Generation Y students trust mobile banking. Furthermore, the results indicate that Generation Y students perceive retail banks to be honest with their customers, keep the promises they make, and act ethically in dealing with their customers. In addition, Generation Y students perceive the mobile banking system as having sufficient structural assurances, that the system can provide information quality and relevance and perceive the mobile banking system to be user-friendly concerning the navigation and loading of texts and graphics.

Correlation analysis using Pearson's Product-Moment correlation coefficient was undertaken to assess whether there was a relationship between Generation Y students' perceived integrity of mobile banks, their perceived system quality of mobile banking and their perceived trust in mobile banking,. The results are reported in Table 3.

Table 3. Relationship between perceived integrity, perceived system quality and perceived trust

|  | Perceived integrity | Perceived system quality | Perceived trust |
|---|---|---|---|
| Perceived integrity | 1 | 0.456* | 0.467* |
| Perceived system quality |  | 1 | 0.658* |
| Perceived trust |  |  | 1 |

*Correlation is significant at the 0.01 level (2-tailed)

As is evident from Table 3, there are statistically significant positive relationships between Generation Y students' perceived integrity, perceived system quality and perceived trust. The strongest relationship occurred between system quality and trust ($r$=0.658, $p$<0.01), followed by integrity and trust ($r$=0.467, $p$<0.01) and integrity and system quality ($r$=0.456, $p$<0.01). This suggests that the higher the perceived integrity of mobile banks and the higher the perceived system quality of mobile banking, the greater the perceived trust in mobile banking. To determine the influence of perceived integrity and perceived system quality on perceived trust, regression analysis was conducted. The results are delineated in Table 4.

Table 4. Regression analysis

|  | Standardized Beta | Adjusted R² | t-value | Significance |
|---|---|---|---|---|
| Dependent variable: Perceived trust |  |  |  |  |
| Independent variable: |  |  |  |  |
| Perceived integrity | 0.210 |  | 4.666 | 0.000* |
| Perceived system quality | 0.562 | 0.464 | 12.459 | 0.000* |

*Significant at the 0.05 level (2-tailed).

Table 4 shows that while both the perceived integrity of mobile banks (β=0.210, p=0.000<0.05) and perceived system quality of mobile banking (β=0.0.562, p=0.000<0.05) have a significant positive influence on Generation Y students' perceived trust in mobile banking, system quality makes the strongest unique contribution towards explaining trust in mobile banking. Together, these two constructs account for 46 percent of the variance in perceived trust in mobile banking.

## 4. Discussion

This study investigated the influence of the perceived integrity of the mobile bank and the perceived system quality of mobile banking on Generation Y students' trust in mobile banking. Insights gained from this study can assist retail banks in their efforts to foster trust in mobile banking. The findings of the study suggest that both integrity and system quality are positively associated with trust. In accordance with the literature, perceived integrity and perceived system quality were found to be a significant positive predictor of trust in mobile banking. Of the two, system quality was found to be the stronger predictor of trust in mobile banking amongst Generation Y students.

It is important that retail banks consider their capability to provide value-adding services that are safe and secure, demonstrate continually their intention to be truthful and fair regarding customers' banking requirements and show good intent in terms of customer empowerment. To this end, retail banks can consider introducing biometric mobile banking solutions. This introduction will likely boost customer convenience and mobile banking security offerings. Furthermore, retail banks are advised to determine their ability to deliver on promises and commitments made during, amongst others, marketing initiatives. These initiatives will possibly help customers to familiarize themselves with the retail bank and their mobile banking channel. If customers believe that their retail bank can deliver services with integrity, it could have a positive influence on customer loyalty. This, in turn, may not only transpire into improved bank market share, but also a greater share in the mobile banking market.

With respect to the system quality of mobile banking, it is suggested that the design of the retail bank's mobile banking system be straightforward and free of any mental effort. This applies to the interface design, the design of the mobile banking website, programs and processes. Mobile banking should be user-friendly with clear and concise instructions on how to perform a particular transaction. It is recommended that icons be utilized in this regard to ascertain that mobile banking instructions are comprehended by all levels of users. Moreover, it is advised that South African retail banks constantly assess the stability and reliability of their mobile banking system for banking purposes. This is because, in South Africa, a number of electronic fraud cases, or cybercrime, have been reported (Fichardt, 2015). It is, therefore, recommended that retail banks have the essential structural assurances in place to ensure that customers perceive the mobile banking system as safe and secure. This includes the security feature of encryption, which protects sensitive information. Retail banks may also want to consider investing considerable time and effort in determining ways in which they can improve trust through the system quality of mobile banking. This is because one simple system fault can easily result into a tarnished perception of system quality, and accordingly, distrust of mobile banking. Retail banks can achieve and maintain a certain level of trust by, amongst other things, enforcing measures that will reduce digital banking fraud, as well as communicate to their customers the steps taken to improve the security of digital banking systems, including that of mobile banking. This will likely serve to keep customers up-to-date regarding developments in cybersecurity and may bolster their trust of the mobile banking system.

## 5. Limitations and future research

In interpreting the results of this study, due cognizance should be taken of its limitations. First, a non-probability sampling technique was used to survey the participants and, therefore, caution should be exercised in generalizing the findings to the target population. Secondly, the study employed a single cross-sectional research design. Fast-paced developments in mobile technologies, cybercrime and the continuous growth in mobile Internet users and usage will continue to challenge retail banks in terms of trust in digital channels, making a longitudinal study more appropriate for this type of study. In addition to a longitudinal study, an opportunity exist to perform a wider scale study by determining trust in mobile banking of students registered at HEI campuses in each of South Africa's nine provinces.

## Conclusion

This study concluded that Generation Y students' perceived integrity of the mobile bank and their perceived system quality of mobile banking have a significant positive influence on their perceived trust in mobile banking. Through better understanding Generation Y students' trust in mobile banking, strategists, marketers and policy makers can develop strategies that will foster trust in mobile banking, thereby promoting increased customer acceptance of mobile banking.

## References

1. Akturan, U., and Tezcan, N. (2012). Mobile banking adoption of the youth market: perceptions and intentions. *Marketing Intelligence and Planning, 30*(4), 444-459.
2. Benamati, J. S., and Serva, M. A. (2007). Trust and distrust in online banking: their role in developing countries. *Information Technology for Development, 13*(2), 161-175.
3. Bleedorn, G. (2013). Say hello to the millennial generation. *ABA Bank Marketing, 45*(1), 24-28.
4. Cox, D., Kilgore, T. L., Purdy, T., and Sampath, R. (2008). Catalysts for change: the implications of Gen Y consumers for banks. Retrieved from https://thebankwatch.com/2008/04/17/catalysts-for-change-the-implications-of-gen-y-consumers-for-banks-deloitte/ (Accessed: 25/01/17).
5. Cui, Y., Trent, E. S., Sullivan, P. M., Matiru, G. N. (2003). Cause-related marketing: how Generation Y responds. *International Journal of Retail and Distribution Management, 31*(6), 310-320.
6. Ernst & Young. (2015).Global banking outlook 2015: transforming banking for the next generation. Retrieved from http://www.ey.com/Publication/vwLUAssets/EY-global-banking-outlook-2015-transforming-banking-for-the-next-generation/$FILE/EY-global-banking-outlook-2015-transforming-banking-for-the-next-generation.pdf (Accessed: 05/02/17).
7. Fichardt, C. (2015). Just how big a treat is cybercrime to SA? Retrieved from http://www.bdlive.co.za/business/technology/2015/06/08/just-how-big-a-threat-is-cybercrime-to-sa (Accessed: 14/08/16).
8. Gu, J. C., Lee, S. C., and Suh, Y. H. (2009). Determinants of behavioral intention to mobile banking. *Expert Systems with Applications, 36*(9), 11605-11616.
9. Hanafizadeh, P., Behboudi, M., Koshksaray, A. A., and Tabar, M. J. S. (2014). Mobile-banking adoption by Iranian clients. *Telematics and Informatics, 31*(1), 62-78.
10. Hong, I. B., and Cho, H. (2011). The impact of consumer trust on attitudinal loyalty and purchase intentions in B2C e-marketplaces: intermediary trust vs. seller trust. *International Journal of Information Management, 31*(5), 469-479.
11. IT news Africa. (2015). Will digital finance play a bigger role in SA in 2015. Retrieved from http://www.itnewsafrica.com/2015/02/will-digital-finance-play-a-bigger-role-in-sa-in-2015/ (Accessed: 12/03/16).
12. Kim, G., Shin, B., and Lee, H. G. (2009). Understanding dynamics between initial trust and usage intentions of mobile banking. *Information Systems Journal, 19*(3), 283-311.
13. Kleijnen, M., Wetzels, M., and de Ruyter, K. (2004). Consumer acceptance of wireless finance. *Journal of Financial Services Marketing, 8*(3), 206-217.
14. KPMG South Africa. (2014). SA banking is top notch. Retrieved from http://www.sablog.kpmg.co.za/2014/09/sa-banking-top-notch/ (Accessed: 12/03/16).
15. Lin, H. F. (2011). An empirical investigation of mobile banking adoption: the effect of innovation attributes and knowledge-based trust. *International Journal of Information Management, 31*(3), 252-260.
16. Lin, J., Lu, Y., Wang, B., and Wei, K. K. (2011). The role of inter-channel trust transfer in establishing mobile commerce trust. *Electronic Commerce Research and Applications, 10*(6), 615-625.
17. Markert, J. (2004). Demographics of age: generational and cohort confusion. *Journal of Current Issues andResearch in Advertising, 26*(2), 11-25.
18. Mayer, R. C., Davis, J. H., and Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review, 20*(3), 709-734.
19. McKnight, D. H., Cummings, L. L., and Chervany, N. L. (1998). Initial trust formation in new organization relationships. *Academy of Management Review, 23,* 473-490.
20. Nel, J., Boshoff, C., and Raleting, T. (2012). Exploiting the technology cluster effect to enhance the adoption of WIG mobile banking among low-income earners. *Management Dynamics, 21*(1), 30-44.
21. Nor, K. M., and Pearson, J. M. (2008). An exploratory study into the adoption of Internet banking in a developing country: Malaysia. *Journal of Internet Commerce, 7*(1), 29-73.

22. Pallant, J. (2010). *SPSS survival manual: a step by step guide to data analysis using SPSS*. England: Open University Press.
23. Roy, M. C., Dewit, R. O., and Aubert, B. A. (2001). The impact of interface usability on trust in Web retailers. *Internet Research*, *11*(5), 388-398.
24. Statistics South Africa. (2016). Statistical release P0302: 2016 mid-year population estimates. Retrieved from http://www.statssa.gov.za/publications/P0302/P03022016.pdf (Accessed: 11/02/17).
25. Talukder, M., Quazi, A., and Sathye, M. (2014). Mobile phone banking usage behaviour: an Australian perspective. *Australasian Accounting, Business and Finance Journal, 8*(4), 83-104.
26. Vance, A., Elie-Dit-Cosaque, C., and Straub, D. W. (2008). Examining trust in information technology artifacts: the effects of system quality and culture. *Journal of Management Information Systems, 24*(4), 73-100.
27. Virkkunen, T. (2004). Trust in the new economy: the case of Finnish banks. Retrieved from https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/78402/1_trust_in_the_new_economy.pdf?sequence=1 (Accessed: 29/08/16).
28. Ya'gobi, N. M., and Rad, Z. N. (2015). Effective behavioral factors on customers' intention to use mobile banking services. Case study: Saderat bank branches of Mashhad. *ArthPrabandh: A Journal of Economics and Management, 4*(2), 128-143.
29. Yousafzai, S. Y., Pallister, J. H., and Foxall, G. R. (2003). A proposed model of e-trust for electronic banking. *Technovation, 23*(11), 847-860.
30. Zahedi, F. M., and Song, J. (2008). Dynamics of trust revision: using health infomediaries. *Journal of Management Information Systems, 24*(4), 225-248.
31. Zhou, T. (2011). An empirical examination of initial trust in mobile banking. *Internet Research, 21*(5), 527-540.
32. Zhou, T. (2013). An empirical examination of continuance intention of mobile payment services. *Decision Support Services, 54*(2), 1085-1091.