

Comparative analysis of factors influencing customers' attitude towards Internet and cell phone banking services

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Abstract

Although cell phone banking was preceded by Internet banking, recent statistics in South Africa show that more customers are adopting cell phone banking compared to Internet banking. Customers' attitude significantly influences their behaviour in accepting or rejecting technology. This study employs customers' trust of the Internet and cell phone banking systems and subjective norm together with the TAM's constructs of perceived usefulness and perceived ease of use to simultaneously ascertain retail banking customers' attitude towards Internet and cell phone banking services and to determine whether significant differences exist in their attitude towards these services.

Results of this study indicate that although customers have a positive attitude towards both Internet and cell phone banking services, their overall attitude towards cell phone banking is more positive than that of Internet banking and they are not only more emphatic in their intention to start/continue using cell phone banking, but also to increase their frequency of usage. Hence a more rapid adoption and usage of cell phone banking services are envisaged in South Africa. The study also provides key insights for policy makers, retail banks and marketers responsible for designing, implementing and promoting a more kindly disposed adoption of Internet and cell phone banking in South Africa.

Key phrases

cell phone banking, customers' attitude, Internet banking, retail banking, South Africa

1. INTRODUCTION

Global competition requires that customers should be able to access banking services at any time, any place and anywhere, and this is made possible through electronic banking (e-banking). E-banking has therefore created a paradigm shift in the banking industry -from brick-and-mortar banks to virtual banking (Sharma 2008:45). The advent of e-banking through multiple channels has not only made it possible for banks to add value to their customers' banking experience, but has also assisted them to cut down their operational costs considerably. The Internet and more recently cell phone banking have both become integral channels that banks are using to serve their customers.

As a result of the many benefits associated with Internet and cell phone banking, banks are deploying significant resources into provision of these services. However, the adoption rate of these services is not as impressive as initially hoped for (Maduku & Mpinganjira 2012:172). Many authors including Ashby (2005:Internet), Featherman and Pavlou (2003:60) as well as Gilbert, Balestrini and Littleboy (2004:288) alluded customers' inertia to using online services to their preference to dealing directly with another human being.

Studies conducted by Singh (2004:188) as well as Brown and Molla (2005:Internet) highlighted that South African banks face significant challenges in getting customers to use e-banking services. To overcome this, banks are developing strategies to encourage current e-banking users to increase their frequency of usage, as well as attracting new customers to use the services by charging lower transaction fees for services conducted electronically, and concurrently deterring customers from using over-the-counter services with high service charges. Moreover, customer-contact staff of all the South African banks that offer e-banking services have been given targets to migrate customers from offline to online banking.

To be successful, banks need to understand the attitude of their customers towards these online banking services as many authors argue that this attitude has a strong, direct, and positive effect on consumers' intentions to actually use the new technology or system (Bobbitt & Dabholkar 2001:425; Eriksson & Nielson 2007:163; Hernandez & Mazzon 2007:76; Jaruwachirathanakul & Fink 2005:296). Moreover, Pride and Ferrrell (2012:201) noted that choosing to ignore customers' attitude towards a product/service while developing a marketing strategy guarantees limited success with that strategy. Therefore, the success of any strategy aimed at influencing customers to migrate to Internet and cell phone banking should be contingent on informed understanding of factors that influence customers' attitude towards the service.

2. RATIONALE FOR THE STUDY

A recent study, revealed that 16% of banking customers in South Africa use the Internet for banking while 28% use their cell phones (Goldstuck 2010:Internet). The foregoing statistics demonstrate that cell phone banking has enjoyed a higher adoption rate over Internet banking in South Africa, although cell phone banking as compared to Internet banking is new (Maduku & Mpinganjira 2012:174).

The higher rate of adoption that cell phone banking enjoys over Internet banking in South Africa sharply contrasts with findings of Laukkanen (2007:789) as well as Laforet and Li

(2005:363) which identified Internet banking as the leading electronic banking channel in the USA and most European countries.

A review of extant literature shows that only a few studies have simultaneously examined consumers' perception towards Internet and cell phone banking (Laforet & Li 2005:374; Laukkanen 2007:794). Little is also known about the differences in customers' attitude towards Internet and cell phone banking. Gaps thus exist in our understanding with regard to the differences that may exist in customers' attitude towards Internet and cell phone banking services.

Hence there is clearly the need to understand retail banking consumers' attitude towards and usage of Internet and cell phone banking services in the South African context. This understanding will suitably enable marketers to determine if and where significant differences exist between customers' attitude towards Internet and cell phone banking. This information is key to facilitating a more rapid adoption of Internet and cell phone banking in South Africa.

The main purpose of this paper is to simultaneously investigate and compare the factors that influence retail banking customers' attitude towards Internet and cell phone banking, using data obtained in an empirical study. Specific objectives include to:

- ascertain retail banking customers' perception of perceived usefulness, perceived ease of use, subjective norm and trust of the Internet/cell phone banking system;
- determine whether there are significant differences in their perception of these factors towards Internet and cell phone banking;
- assess the extent to which these factors interact to predict retail banking customers' attitude towards Internet and cell phone banking; and
- examine the implications of the findings on policy makers, retail banks and marketers responsible for designing, implementing and promoting a more rapid adoption of Internet and cell phone banking services.

3. LITERATURE REVIEW

There are several studies in extant literature that separately focussed on Internet banking as well as cell phone banking. Recent studies that concentrate on Internet banking adoption (Akhlq & Ahmed 2013:120; Chiou & Shen 2012:865; Hojjati & Rabi 2013:129; Juwaheer, Pudaruth & Ramdin 2012:210; Lee 2009:135; Montazemi & Saremi 2013:4669; Singh & Kaur 2013:60;

Yousafzai, Foxall & Pallister 2010:1179; Yousafzai & Yani-de-Soriano 2012:65) as well as mobile/cell phone banking (Akturan & Tezcan 2012:448; Ha, Canedoli, Baur & Bick, 2012:220; Jeong & Yoon 2013:34; Lin 2011:258; Maduku & Mpingajira 2012:178; Yu 2012:115) have identified several factors that influence the customers' attitude and intention to adopt Internet and cell phone banking services.

This study, however, focuses on perceived usefulness, perceived ease of use, subjective norm and customers' trust of the Internet or cell phone banking system as explanatory and predictive variables for attitude towards usage and behavioural intention to start/continue using Internet and cell phone banking services. The following subsections discuss the variables and their expected relationships with retail banking customers' attitude towards usage and intention to start/continue using Internet and cell phone banking services.

3.1 Perceived usefulness, perceived ease of use, attitude and behavioural intention

According to Frangos (2009:157), the ultimate reason why people exploit e-banking services, is that they find the system to be useful to their transactions. Thus, customers anchor their e-banking intention to the beneficial outcomes that the system provides (Ndubisi 2006:12). Studies conducted by Jawaheer et al. (2012:217) as well as Jeong and Yoon (2013:37) have shown perceived usefulness to be a significant predictor of attitude of both Internet and cell phone banking respectively. The outcome of their studies imply that users of Internet and cell phone banking services are inclined to develop a positive attitude towards the service if they believe that using the service will give them convenience, enhance their banking experience, and enable them to do banking effectively and efficiently.

Literature posits that the adoption of technology is very much dependent on the degree to which that technology is perceived to be relatively easy to understand and use. Perceived ease of use in e-banking may be described as the physical or mental effort that customers exert or are likely to exert in conducting e-banking (Maduku & Mpingajira 2012:176).

According to Ndubisi (2006:18) a system that requires less technical skills and operational efforts will be more likely to be adopted. Previous studies by Moses et al. (2013:Internet), Yang, Liu and Zhou (2011:68); Al-somali, Gholami and Clegg (2009:139), Pikkarainen et al. (2004:229) and Sathye (1999:326) have all found significant positive relationships between perceived ease of use and e-banking adoption. This notwithstanding, discrepancies in

customers' perception on perceived ease in the use of Internet banking and cell phone banking have been well documented.

A study by Laukkanen (2007:793) puts this observation into perspective. The study noted customers' complaints of the small keyboard of mobile phone makes mobile banking difficult to use and inconvenient, as compared with Internet banking and hence increases future adoption uncertainty among customers.

Previous research (Al-Somali et al. 2009:139; Lee 2009:139; Lin 2011:258; Maduku & Mpinganjira 2012:183; Singh & Kaur 2013:64) underscored the centrality of attitude in predicting behavioural intention towards the adoption and use of Internet and cell phone banking services.

A more recent empirical research conducted by Maduku and Mpinganjira (2012:185) among retail banking customers in Gauteng, South Africa showed a significant positive relationships between customers' attitude and intention to adopt, depicting that customers who have positive attitude towards cell phone banking are more likely to adopt the service.

3.2 Subjective norm

Yousafzai et al. (2010:1180) argue that there are social effects that are not directly linked to perceived ease of use or usefulness outcome that affect technology attitude and usage intentions. The authors noted that many studies that have included subjective norm provided a slightly higher explanatory power in respect to attitude and predicting actual behaviour (Akturan & Tezcan 2012:455).

The idea behind subjective norm underpins the notion that people often act based on their perception of what others think they should do, and their intentions to an attitude towards a behaviour is potentially influenced by people close to them. However, the findings of subjective norm on attitudes towards e-banking have been inconsistent. For instance, in a research conducted in Taiwan, Yu (2012:115) found subjective norm to be the most powerful factor affecting attitude towards and behavioural intention to adopt mobile banking among customers.

Nonetheless, Maduku and Mpinganjira (2012:184) found a significant, but weak correlation between subjective norm and attitude in a study conducted among South African retail banking customers. Research also shows that customers' attitude towards electronic banking and actual usage intention were also influenced by trust.

3.3 Trust

The banking industry is strongly associated with high levels of trust related to security and privacy issues in the physical environment (Yousafzai et al. 2010:1181). According to Suh and Han (2002:250), the issue of trust is more important in online as opposed to offline banking because transactions online contain sensitive information and parties involved in the financial transaction are concerned about access to critical files and information transferred via the Internet.

Customers' trust is identified as an important future challenge for Internet and mobile banking (Aladwani 2001:215). Consequently, many studies, both recent and past (Akturan & Tezcan 2012:454; Jawaheer et al. 2012:218; Laforet & Li 2005:376; Lin 2011:257; Yu 2012:115) reveal that consumers are reluctant to adopt Internet and cell phone banking as result of their lack of trust in the confidentiality of the system.

4. METHODOLOGY

The empirical aspect of this research follows a quantitative and descriptive research design.

4.1 Measures and pre-test

A paper-based self-completing questionnaire consisting of two main sections was used as survey instrument. The first section of the questionnaire started with a screening question which was necessary to ensure that only respondents with bank accounts with the selected banks responded to the questionnaire. Also included in this section were questions aimed at gathering demographic information such as gender, age, level of education and income. The questions in this section were measured using nominal and ordinal scales.

The second section of the questionnaire elicited responses on the variables of interest in this study: perceived usefulness, perceived ease of use, subjective norm, attitude, and intention to use or continue using. All the variables were measured with multiple items which were primarily based on previous related studies with proper modifications to suit the Internet and the cell phone banking context. For all variables, respondents were asked to rate their level of agreement with statements using 5-point Likert type scales ranging from 1 (strongly disagree) to 5 (strongly agree).

The scale items for perceived usefulness, subjective norm, trust, and attitude were adapted from Nor and Pearson (2008:68-70). Items used to measure perceived ease of use were modified from studies conducted by Nor and Pearson (2008:68) and Pikkarainen et al.

(2004:230). Finally, the items used to measure intention to use/continue using were adapted from a study conducted by Al-Somali et al. (2009:135).

4.2 Subjects and sampling process

The target population for this study consisted of retail banking customers of the four major banks (ABSA, First National Bank, Nedbank and Standard Bank) in South Africa, who either have access to the Internet or cell phones that enable them to do cell phone banking or both. The study took place in a major South African province called Gauteng, which is often referred to as the financial hub of Africa.

In this study, there was no available list (sampling frame) for the target population. As a result, a non-probability sampling in the form of convenience sampling technique was used. A mall intercept technique was used to select respondents who were willing to co-operate with the researcher from six malls across Johannesburg and Pretoria during working hours (09h00-17h00) on business days (Monday to Friday). Deliberate efforts were made to ensure that the respondents included people of different racial, gender and age groups.

A total of 394 usable responses were obtained for further analysis. This sample size is, however, comparable to similar studies undertaken by Jawaheer et al. (2012:215) where 384 responses were realised, Lin (2011:255) where 368 responses were obtained, and Yaghoubi and Bahmani (2010:161) where 249 responses were realised.

5. DATA ANALYSIS AND RESULTS

5.1 Reliability and validity

All the scales used were subjected to reliability analysis before being employed in the main analysis by using the Cronbach's alpha coefficient (α). According to Nunnally (1978:245), Cronbach alpha values range from 0 – 1 with values above 0.7 generally considered as good indicators of internally consistent (reliable) scale. As can be seen from the Table 1, the Cronbach alpha values computed for this study for both Internet and cell phone banking, ranged from 0.928 to 0.963. Consequently, it is concluded that scales used in the research instrument were highly reliable.

Factor analysis with Principal Component Analysis (PCA) was conducted using Likert-scale variables. In order to have construct validity, Hair et al. (2011:444) suggest that factor loadings be statistically significant and achieve a factor loading of 0.50 or higher with an ideal bottom cut-off point of 0.70. According Table 1, the factor loadings for the items used in

the study ranged from 0.822 - 0.982 and 0.831 - 0.981 for Internet and cell phone banking respectively, hence all the items used in this study achieve convergent validity.

TABLE 1: Factor analysis and Cronbach's alpha (α) coefficients

Measure items of the constructs	Internet banking		Cell phone banking	
	Factor loadings	Cronbach's alpha (α)	Factor loadings	Cronbach's alpha (α)
Perceived usefulness		.951		.944
Internet/cell phone banking makes it easier to do banking activities	.934		.887	
Internet/cell phone banking enables one to do banking activities more quickly	.938		.931	
I think Internet/cell phone banking enables one to complete banking activities more conveniently	.934		.920	
I think Internet/cell phone banking allows one to manage banking activities more efficiently	.876		.889	
I think Internet/cell phone banking is useful in conducting banking activities	.891		.891	
Perceived ease of use		.953		.954
I think it is easy to learn how to use Internet/cell phone banking	.943		.934	
I think it is easy to get Internet/cell phone banking to do what I want it to do	.942		.942	
I think it is easy to become skilful at using Internet/cell phone banking	.965		.950	
Overall, I think Internet/cell phone banking is easy to use	.897		.925	
Trust of the e-banking system		.932		.936
I think Internet/cell phone banking has enough safeguards to make me feel comfortable using it	.822		.855	
I feel assured that legal structures adequately protect me from problems associated with using Internet/cell phone banking services	.869		.876	
I feel confident that technological advances (such as encryption) on the Internet/cell phone makes it safe for me to use Internet/cell phone banking	.871		.836	

Measure items of the constructs	Internet banking		Cell phone banking	
	Factor loadings	Cronbach's alpha (α)	Factor loadings	Cronbach's alpha (α)
In general the Internet/cell phone is a safe environment in which to transact banking activities	.839		.839	
Subjective norm		.935		.939
People who influence my behaviour believe I should use Internet banking/cell phone banking	.894		.900	
People who are important to me believe I should use Internet/cell phone banking	.931		.934	
People whose opinions I value believe I should use Internet/cell phone banking	.932		.934	
People who influence my decisions think I should use Internet/cell phone banking	.889		.898	
Attitude		.951		.963
Using Internet/cell phone banking is a good idea	.896		.921	
I like the idea of using Internet/cell phone banking	.953		.948	
Using Internet/cell phone banking is a pleasant idea	.951		.966	
Using Internet/cell phone banking is an appealing idea	.933		.939	
Using Internet/cell phone banking is an exciting idea	.842		.896	
Behavioural Intention (to start/continue using Internet/ cell phone banking)		.959		.946
I intend to start/continue using Internet/cell phone banking services in the future	.982		.981	
I will use cell phone/Internet banking services regularly in the future	.982		.981	

Source: Author

5.2 Demographic profile

The survey witnessed a higher percentage (51.8%) of male participants than female (48.2%) participants. The highest percentage (38.8%) of the respondents was in the age bracket of 18-29 years, followed by those in the age of 30-39 year (30.7%). This meant that more than two-thirds of the sample group (69.5%) were aged under 40. The highest percentage of

respondents taking part in the study were fairly educated with most having obtained a high school (29.9%), being a university/college undergrad (29.2%), and some having tertiary education (22.8%). In terms of gross monthly income, it is observed that the highest number of the respondents (19.8%) earn a gross monthly income of R7,501 - R10,000.

5.3 Descriptive statistics of research constructs

Descriptive statistics were used by the researcher to simultaneously ascertain respondents' perceptions of the constructs of perceived usefulness, perceived ease of use, trust, and subjective norm of Internet and cell phone banking.

5.4 Perceived usefulness

Results as per Table 2 suggest the respondents generally perceive both Internet and cell phone banking to be useful. The overall mean for both Internet banking (3.94) was the same as that of cell phone banking (3.94). However, on item by item comparative analysis, respondents generally believe that cell phone banking enables them to perform banking activities more quickly (3.95) and more conveniently (3.92) than Internet banking.

5.5 Perceived ease of use

In terms of "perceived ease of use", respondents generally perceive both Internet and cell phone banking to be easy to use. The overall mean and standard deviation scores for "perceived ease of use" of Internet banking were 3.70 and 1.104 respectively, whereas with cell phone banking overall mean and standard deviation scores for the same construct were 3.92 and 1.004 respectively. Although respondents perceive both Internet and cell phone banking to be easy to use, the higher overall mean value that cell phone banking has over Internet banking denotes that respondents perceive cell phone banking to be easier to use than Internet banking.

TABLE 2: Descriptive statistics of research constructs

Measure items of the constructs	Internet banking		Cell phone banking	
	Mean	Standard deviation	Mean	Standard deviation
Perceived usefulness	3.94	0.950	3.94	0.932
Internet/cell phone banking makes it easier to do banking activities	3.91	1.073	3.91	1.086
Internet/cell phone banking enables one to do banking activities more quickly	3.93	1.065	3.95	1.047

Measure items of the constructs	Internet banking		Cell phone banking	
	Mean	Standard deviation	Mean	Standard deviation
I think Internet/cell phone banking enables one to complete banking activities more conveniently	3.90	1.046	3.92	1.014
I think Internet/cell phone banking allows one to manage banking activities more efficiently	3.92	1.000	3.91	0.997
I think Internet/cell phone banking is useful in conducting banking activities	4.04	1.004	4.01	1.014
Perceived ease of use	3.70	1.104	3.92	1.004
I think it is easy to learn how to use Internet/cell phone banking	3.61	1.221	3.88	1.101
I think it is easy to get Internet/cell phone banking to do what I want it to do	3.63	1.169	3.88	1.065
I think it is easy to become skilful at using Internet/cell phone banking	3.73	1.133	3.91	1.061
Overall, I think Internet/cell phone banking is easy to use	3.82	1.186	3.99	1.057
Trust of the Internet/cell phone banking system	3.31	1.027	3.46	1.028
I think Internet/cell phone banking has enough safeguards to make me feel comfortable using it	3.28	1.130	3.44	1.144
I feel assured that legal structures adequately protect me from problems associated with using Internet/cell phone banking services	3.18	1.119	3.39	1.119
I feel confident that technological advances (such as encryption) on the Internet/cell phone makes it safe for me to use Internet/cell phone banking	3.33	1.088	3.48	1.060
In general the Internet/cell phone is a safe environment in which to transact banking activities	3.45	1.150	3.54	1.147
Subjective norm	3.48	1.055	3.55	1.044
People who influence my behaviour believe I should use Internet banking/Cell phone banking	3.44	1.162	3.53	1.101
People who are important to me believe I should use Internet/cell phone banking	3.48	1.157	3.59	1.118
People whose opinions I value believe I should use Internet/cell phone banking	3.49	1.152	3.52	1.151
People who influence my decisions think I should use Internet/cell phone banking	3.50	1.159	3.56	1.101

Measure items of the constructs	Internet banking		Cell phone banking	
	Mean	Standard deviation	Mean	Standard deviation
Attitude	3.80	1.046	3.88	1.041
Using cell Internet/cell phone banking is a good idea	3.78	1.150	3.88	1.114
I like the idea of using Internet/cell phone banking	3.78	1.190	3.87	1.133
Using Internet/cell phone banking is a pleasant idea	3.78	1.117	3.89	1.095
Using Internet/cell phone banking is an appealing idea	3.83	1.092	3.86	1.095
Using Internet/cell phone banking is an exciting idea	3.78	1.179	3.88	1.138
Behavioural Intention (to start/continue using cell phone Internet banking)	3.86	1.196	4.01	1.151
I intend to start/continue using Internet/cell phone banking services in the future	3.78	1.263	4.02	1.183
I shall use Internet/cell phone banking regularly in the future	3.78	1.215	4.01	1.163

Source: Author

5.5 Customers' trust of the Internet and cell phone banking systems

The outcome of the analysis points to a lower level of respondents' trust in the e-banking system with the highest item-by-item mean being 3.54. The overall mean for trust of the Internet banking system was 3.31 with a standard deviation of 1.027, while for the cell phone banking system, this was 3.46 with a standard deviation of 1.028. Although respondents generally have low levels of trust in both Internet and cell phone banking, their overall trust in cell phone banking is, however, higher than Internet banking. A comparative analysis of the mean values of trust in both Internet and cell phone banking with all the other constructs employed in this study, points to an observation that respondents' trust in the Internet and cell phone banking system is the least of all.

5.6 Subjective norm

According to Table 2, the overall mean values were for subjective norm were not very far from the neutral value of 3. The overall mean value for the subjective norm for Internet banking was 3.48 with a standard deviation of 1.055, while the mean for cell phone banking was 3.55 with a standard deviation of 1.044. This indicates that the influence of other people on individuals' use of e-banking is generally narrow. The same can be observed on the individual items used

to measure subjective norm. Although the influence of other people on cell phone banking use was higher (as evidenced by higher mean values than those obtained for Internet banking), the values in both cases were not very high.

5.7 Attitude towards Internet and cell phone banking usage

Although customers are wary of trust and security with regard to both Internet and cell phone banking systems, the overall mean scores for attitude towards Internet banking (3.78) and cell phone banking (3.88) show that respondents generally have a positive attitude towards both Internet and cell phone banking. A comparative analysis of the mean scores, however, shows that respondents have a more positive attitude towards cell phone banking than Internet banking. Further evidence of this can be seen in the mean values of the individual items that measured respondents' attitude towards both services. For instance, respondents believe that cell phone banking (3.88) is a better idea than Internet banking (3.79); respondents like the idea of using cell phone banking (3.87) rather than Internet banking (3.78).

5.8 Intention to use/continue using Internet and cell phone banking services

As a result of this positive attitude towards Internet and cell phone banking, the analysis further showed that respondents have a positive behavioural intention to start or continue using Internet and cell phone banking. A comparison of their current and future usage intentions, however, revealed that customers are more positive to start/continue using cell phone banking (4.02) than Internet banking (3.86). Moreover, the results further reveal customers will use cell phone banking (4.01) more regularly in the future than Internet banking (3.78).

5.9 Multiple regression analysis

Use of multiple regression was made in order to enable the researcher to ascertain how accurately the independent variables (perceived usefulness, perceived ease of use, trust of the Internet/cell phone banking system, and subjective norm) predict the dependent variable attitude (attitude). According to Nach (2009:134), regression analysis is an appropriate analysis when the goal of research is to assess the extent of relationship among a set of dichotomous or interval/ratio predictor variables on an interval/ratio criterion variables.

Results of the regression model as presented in Table 3 suggest that perceived usefulness, perceived ease of use, and trust are all statistically significant ($p < 0.05$) predictors of customers' attitude towards Internet banking. The model's R^2 of .661 explains that 66.1% of the variance in customers' attitude towards Internet banking is attributable to the three

variables. However, subjective norm at a $p=.211 >.05$ is found not statistically significant and therefore, does not wield any influence on customers' attitude towards Internet banking. On the other hand, in the case of cell phone banking, all the four variables employed in the model have achieved statistical significance ($p<0.05$). The R^2 of the model shows that when combined the four variables account for 68.1% of the variance in customers' attitude towards cell phone banking.

TABLE 3: Multiple regression analysis – customers' attitude towards Internet and cell phone banking

Independent variable	Internet banking					Cell phone banking				
	Unstandardised		Standardised	t	Sig	Unstandardised		Standardised	t	Sig
	Beta (β)	Standard error	Beta (β)			Beta (β)	Standard error	Beta (β)		
Constant	.197	.146		1.352	.177	-.085	.143		-5.91	.555
Perceived Usefulness	.239	.059	.216	4.073	.000	.271	.047	.243	5.740	.000
Perceived Ease of Use	.138	.054	.145	2.558	.011	.172	.050	.166	3.446	.001
Subjective Norm	.050	.040	.051	1.253	.211	.101	.038	.101	2.634	.009
Trust	.561	.054	.489	10.424	.000	.514	.049	.445	10.521	.000
<i>Equation</i>										
R	.813					.825				
R ²	.661					.681				
F	179.551***					206.337***				

Source: Author

6. DISCUSSION AND MANAGERIAL IMPLICATIONS

The findings of this study provides key insights for policy makers, retail banks and marketers responsible for designing, implementing and promoting a rapid adoption of Internet and cell phone banking services in the context of an important emerging economy

like South Africa. The subsections below discuss the managerial implications of these findings on efforts aimed at increasing the adoption of Internet and cell phone banking services.

6.1 Factors influencing attitude towards usage

The results indicate that customers perceived Internet and cell phone banking to be useful for conducting banking activities. This concurs with previous studies by Frangos (2009:157) which stressed that the ultimate reason why people exploit e-banking, is that they find the system to be useful for their transactions.

From the results obtained, it was interesting to note that comparative analyses of customers' perception of the usefulness of Internet and cell phone banking showed that customers perceive Internet and cell phone banking to be equally useful. It has been suggested that to increase Internet and cell phone banking adoption and usage, banks need to meticulously explain to their target market how e-banking services add value to their banking experience relative to the traditional way of conducting their banking transactions (Sathye 199:329).

With regard to perceived ease of use, customers generally perceive Internet and cell phone banking to be relatively easy to use. The results further showed a higher level of 'perceived ease of use' for cell phone banking among customers than for Internet banking. This observation sharply contradicts the findings made by Laukkanen (2007:729) in a similar study which found a higher perceived ease of use of Internet banking among Finnish customers over mobile banking.

However, many studies including that of Al Somali et al. (2009:138) as well as Akturan and Tezcan (2012:452) have all found a positive correlation between the perceived ease of use and attitude towards usage, hence banks can take advantage of customers' high perceived ease of cell phone banking to garner more rapid adoption of the service.

The results of the analysis generally point to a limited influence of customers' subjective norm on their attitude towards Internet and cell phone banking. Nonetheless, the overall mean of subjective norm for cell phone banking is comparatively higher than for Internet banking. This means that customers' subjective norm are more likely to influence their attitude towards cell phone banking than in the case of Internet banking.

This observation concurs with previous research findings of Taylor and Todd (1995:167) which indicates that subjective norm is important at the early stages of introduction of a technology when users have only limited direct experience from which to develop attitudes.

As a result, it is expected that the influence of subjective norm on customers' attitude will wane as more information on the e-banking services is supplied to customers.

The outcome of the analysis divulges customers' uncertainty on issues of trust in relation to both the Internet and cell phone banking system. This is evidenced in the low overall mean values for items used to ascertain customers' trust of the Internet and cell phone banking system. In spite of the relatively low levels of customer trust in both the Internet and the cell phone banking system, which is envisaged to have a negative impact on their attitude towards the services in line with observations made in similar studies (Chiou & Shen 2012:867; Yousafzai et al. 2010:1193), the results of this study noted otherwise.

Furthermore, the results of the study on factors that interact to predict customers' attitude towards Internet and cell phone banking show that whereas perceived usefulness, perceived ease of use, subjective norm and trust of the cell phone banking system are statistically significant and contribute substantially to the variance in customers' attitude towards cell phone banking, the same cannot be said about Internet banking. Subjective norm was found not to have any impact on customers' attitude towards Internet banking, and thus only perceived usefulness, perceived ease of use, and trust contribute to the variance in customers' attitude towards Internet banking.

The findings on subjective norm are ambivalent with a similar study conducted by Laforet and Li (2005:377) on consumers' attitude towards online and mobile banking in China. The result of their study found no support for subjective norm in influencing the Chinese consumers' attitude towards neither online nor mobile banking. In this study, customers' level of trust in both the Internet and the cell phone banking systems turns out to be the utmost important predictor of their attitude towards Internet banking and cell phone banking.

6.2 Behavioural intention towards usage

The results indicate that South African retail banking customers do not only have a positive attitude towards Internet and cell phone banking services usage but also demonstrate a strong behavioural intention to start/continue using the services. In addition to their behavioural intention to continue using Internet and cell phone banking services, users have also indicated their intention to use the services regularly in the future. It is, however, worthy to note that although customers largely hold a positive attitude towards both Internet and cell phone banking, their attitude in respect of cell phone banking is higher than Internet banking.

Similarly, they were more emphatic in their agreement to start/continue using cell phone banking rather than Internet banking.

7. LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

The current research comes with several limitations which generates scope for future researchers. Although the researcher examined customers' attitude towards Internet and cell phone banking, it dwelt extensively on affective component of attitude. According to Albarracín, Johnson and Zanna (2005:82), characterising attitude solely in terms of its affective component is insufficient to fully capture all the relevant properties of attitude (affective, cognitive and behavioural). Moreover, there are several determinants of customers' attitude towards e-banking, however, this study makes use of only a few them. Hence the study has conceptual limitations in the area of customers' attitude towards Internet and cell phone banking services.

Another limitation of the research is the use of convenience sampling to select respondents who participated in the study. As a result, the data is skewed towards younger age, males and lower income groups, and is not representative of the South African population. Additionally, the study took place in only one of the nine provinces in South African and is cross sectional in nature; this limits the inference obtained from this research to other Internet and cell phone banking retail customers throughout the country.

Acknowledging the limitation of this study's huge dependence on the affective component of attitude, the study recommends that future studies should incorporate the cognitive and behavioural dimensions of attitude in order to have a holistic view of customers' attitude towards Internet and cell phone banking. Additionally, future studies can also benefit from inclusion of various determinants of customers attitude towards electronic banking that exists in literature including facilitating conditions, self-efficacy, perceived financial costs and perceived playfulness to provide an exhaustive comparison of their attitude towards Internet and cell phone banking.

Another recommendation for future research is to make use of a probability sampling procedure and to expand the study to cover the other provinces of South Africa in order to improve external validity and enhance the generalisability of the findings to the entire country.

8. CONCLUSION

This study added subjective norm and trust to the TAMs constructs of perceived usefulness and perceived ease of use to simultaneously examine retail banking customers' attitude towards usage and intention to start using/continue using Internet and cell phone banking services, and to determine whether significant differences exist between customers' attitude towards usage and intention to adopt these two retail banking technologies.

From a theoretical perspective, this study extends to aid our understanding of the differences in the factors that affect customers' attitude towards and intention to start/continue using Internet and cell phone banking services, and further provides an empirical validation of the TAM variables in the Internet and cell phone banking services context in South Africa. Most of the findings of this research are consistent with extant literature on Internet and cell phone banking services.

At a managerial level, this study provides invaluable insights regarding the future prospects of Internet and cell phone banking adoption in South Africa. The findings of the study indicate that perceived usefulness, perceived ease of use, trust of the system and subjective norm substantially influence retail banking customers' attitude towards cell phone banking. However, in Internet banking, subjective norm is found not to have any impact on customers' attitude towards the service, but perceived usefulness, perceived ease of use and trust of the system were found to have a significant impact.

A key finding of this research is perhaps, the significance of customers' trust of the Internet and cell phone banking systems on their attitude towards using the service. Thus customers' low level of trust in the Internet and cell phone banking systems poses a significant challenge to efforts aimed at persuading more and more customers to adopt and use Internet and cell phone banking services. In line with this observation, the study suggests that retail banks should implement sophisticated state-of-the-art encryption, firewall and illegal intrusion detection mechanisms over their Internet and cell phone banking platforms, and to further endeavour to have these security mechanisms continuously communicated to their customers using easy-to-understand language. Moreover, to enhance customers' perception of trust in both Internet and cell phone banking services, banks can lobby the government to put in place adequate legal structures that will sufficiently apprehend and speedily persecute those suspected of e-banking fraud.

Further deductions drawn from the findings indicate that retail banking customers in South Africa generally have a positive attitude towards both Internet and cell phone banking services. However, their overall attitude towards cell phone banking is higher than Internet banking. Hence, customers were not only emphatic about their intention to start using or continue using cell phone banking, but also intend to use cell phone banking services more regularly than Internet banking services. This suggests that there is a better potential for a more rapid adoption of cell phone banking than Internet banking among retail banking customers in South Africa. The results of this study present a practical and useful guide for policy makers, the banking community, and marketers who are responsible for designing, implementing and promoting the adoption and use of Internet and cell phone banking services in South Africa and others operating in similar contexts.

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