

## **Selected factors affecting the adoption of Internet banking among Generation Y customers in South Africa**

The research study investigates the extent to which the attitude of Generation Y banking customers is influenced by their awareness of the ease of use and web-based privacy of the Internet banking service. Furthermore, the influence of their attitude on behavioural intention in the future is determined. A quantitative and descriptive research design was used and data was collected from Generation Y banking customers in Gauteng, using a self-administered questionnaire. Descriptive statistics were utilised to provide an explanation of the demographics of the sample and multiple regression analysis was used to determine the relationships between perceived ease of use, perceived web-based privacy, attitude and behavioural intentions. The model tested confirms the hypothesised relationships between the perceived ease of use, perceived web-based privacy, attitude and behavioural intention of Generation Y banking customers. Attitude is linked to its two antecedents, perceived ease of use and perceived web-based privacy, and to their outcome, behavioural intention. These findings could assist the five major retail banks in South Africa to understand how perceived ease of use, perceived web-based privacy and attitude ultimately lead to positive behavioural intentions of Generation Y banking customers in terms of Internet banking adoption.

### **Keywords**

Perceived ease of use; Attitude; Perceived web-based privacy; Behavioural intention; Internet banking.

## 1. INTRODUCTION

Internet banking was first adopted by the United States of America in 1996, followed by countries such as Singapore and Turkey in 1997, and it continues to be a leading technological innovation (Sanli & Hobikoğlu, 2015). With more than seven billion people in the world, three billion are Internet users and just over four billion mobile users (We Are Social & Hootsuite, 2017). Most retail banks in the world are investing in technology driven banking services as most of their customers prefer such digital services over traditional banking services (Raftery & Lalli, 2016). Generation Y customers make up 28 percent of the world Internet banking clientele, and this market segment is expected to become the world's largest customer base over the next decade (Capgemini, 2014; KPMG, 2017). This makes Internet banking a relevant and important banking service need, especially to Generation Y customers, providing this generation with convenience and ease of use, since the user does not need to visit a physical retail bank branch to complete all their banking transactions (Farrington, 2016).

Having been born in an era that is technologically driven, Generation Y customers have a huge preference for technological gadgets and for services in their everyday lives that are technology driven, such as Internet banking, even when it comes to doing business (BCX, 2016; Whiteside, 2016). Various factors influence the decision of Generation Y customers to embrace banking via the internet, such as perceived ease of use, trustworthiness and perceived web-based privacy (Maduku, 2014). Since this market segment seeks convenience, factors such as perceived ease of use and perceived web-based privacy are considered to play an important role. This study seeks to identify the factors that influence Generation Y adoption of Internet banking services. Despite the growing body of research that relates to Internet banking adoption, it is still not clear how factors such as perceived ease of use and perceived web-based privacy interact with variables such as attitude and behavioural intention in an emerging African economy such as South Africa (Chong, Chan and Ooi, 2012).

Although the Internet has been used by banking customers for decades, it still creates emotions of unease, especially when it comes to banking (Ahmad, Rashid, Masood & Ul Mujeeb, 2011). The user wants to trust that all their information and money is as secure on the Internet platform as it would be at a physical branch. Factors such as perceived ease of use, perceived web-based

privacy, attitude and behavioural intention are important to users, relating to whether they can bank safely and conveniently on the Internet. Adesina, Ayo and Uyinomen (2010) state that the interplay between factors such as perceived ease of use, perceived web-based privacy and Internet banking adoption have been studied using a one-size-fits-all approach. No study shows the relationship between such factors and how they influence the adoption of Internet banking by Generation Y customers, especially in an emerging African environment. Therefore, this study investigates the influence of the aforementioned factors on the attitude of Generation Y banking customers towards the acceptance of Internet banking services.

## **2. LITERATURE REVIEW**

### **2.1 Theories grounding the study**

The study is founded on the philosophies of the theory of planned behaviour (TPB) and social exchange theory with respect to the constructs under investigation and the proposed relationships between the constructs. According to the social exchange theory, social stimuli in the environment directly influence the cognitive and affective state of a person, thus influencing his or her behaviour (Redmond 2015; Sierra & McQuitty, 2005). Ozment and Morash (1994) assert that when an employee engage with a customer, the way in which the service is delivered is of greater importance than the service being delivered itself. Therefore, the manner of service delivery by the employee is critical to the success or failure of the service, especially considering that the behaviour and attitude of an employee can have an influence on how a customer perceive the service quality being delivered (Fathima & Muthumani, 2016). Considering that the cost of recruiting new customers are higher than the cost to retain a customer, Ozment and Morash (1994) claim that the performance of an employee in the service delivery process can provide an added advantage founded on the retention of the customer. Considering this, it would be beneficial for South African retail banks to create a rapport with Generation Y banking customers in order to retain them and secure their loyalty. These retail banks also need to consider having incentives to save money for their Generation Y customers that are not only financially beneficial but also offer convenience, such as Internet banking services (Vedder & Guynes, 2017).

## **2.2 Theoretical model development**

### *2.2.1 Relationship between perceived ease of use, attitude and behavioural intention*

Perceived ease of use underlie the perceived credibility of Internet banking (Wang, Wang, Lin & Tang, 2003). Thus, the more customers experience the ease of use of Internet banking services, the more they find such services trustworthy (Cho & Sagynov, 2015). According to Fishbein and Ajzen (1975), the customer's attitude to actual usage is determined by how easy they think the system will be to use. Accordingly, the technology acceptance model (TAM) posits that perceived ease of use has a direct positive effect on attitude towards using the system. The prevailing view is that perceived ease of use is indeed a key attribute influencing the attitude and behavioural intention of an individual towards system usage.

Hence the following hypotheses are provided:

H<sub>1</sub>: Perceived ease of use significantly and positively influences the attitude of Generation Y customers towards Internet banking adoption in South Africa.

H<sub>2</sub>: Perceived ease of use significantly and positively influences the behavioural intention of Generation Y customers in favour of Internet banking adoption in South Africa.

Additionally, the following hypothesis has been formulated to determine whether attitude mediates the relationship between perceived ease of use and behavioural intention with regard to the adoption of Internet banking services.

H<sub>3</sub>: Perceived ease of use has a significant indirect effect on behavioural intention in favour of Internet banking adoption in South Africa as mediated by Generation Y customers' attitude towards such adoption.

### *2.2.2 Relationship between perceived web-based privacy, attitude and behavioural intention*

Zhu, Lee, Wen and Chung (2016) and Warren and Brandeis (1890) refer to web-based privacy as the right of individuals to be left alone and able to control their data, monitor their information and release their personal information on the Internet. Web-based privacy also relates to the perception of an individual towards fairness within the context of information

privacy (Bland, 1968). The user's knowledge of information gathering and its usage beyond the original transactions are the main factors influencing the degree to which users have privacy concerns (Shaikh, Kazi, & Khaskheley, 2014; Sheehan & Hoy, 2000). As the quantity of services and products obtainable via the Internet surges rapidly, customers are becoming more apprehensive about privacy and security issues (Fortes & Rita, 2016). Trust has become an important factor to consider in Internet banking since organisations such as retail banks are putting an increased focus on the building of lasting relationships with customers (Novak, Hoffman & Yung 2000). Individuals therefore want to trust that their information will be safe online before adopting Internet-related activities such as Internet banking (Ahmad, Rashid, Masood & Ul Mujeeb, 2011). Against this background, the following hypotheses are stated:

H4: Perceived web-based privacy significantly and positively influences the attitude of Generation Y towards Internet banking adoption in South Africa.

H5: Perceived web-based privacy significantly and positively influences the behavioural intention of Generation Y in favour of Internet banking adoption in South Africa.

In addition to these two hypotheses, the following hypothesis has been formulated to determine whether attitude mediates the relationship between perceived web-based privacy and behavioural intention with regard to the adoption of Internet banking services.

H6: Perceived web-based privacy has a significant indirect effect on the behavioural intention of Generation Y in favour of Internet banking adoption in South Africa as mediated by attitude towards such adoption.

### *2.2.3 Interrelationship of attitude and behavioural intention*

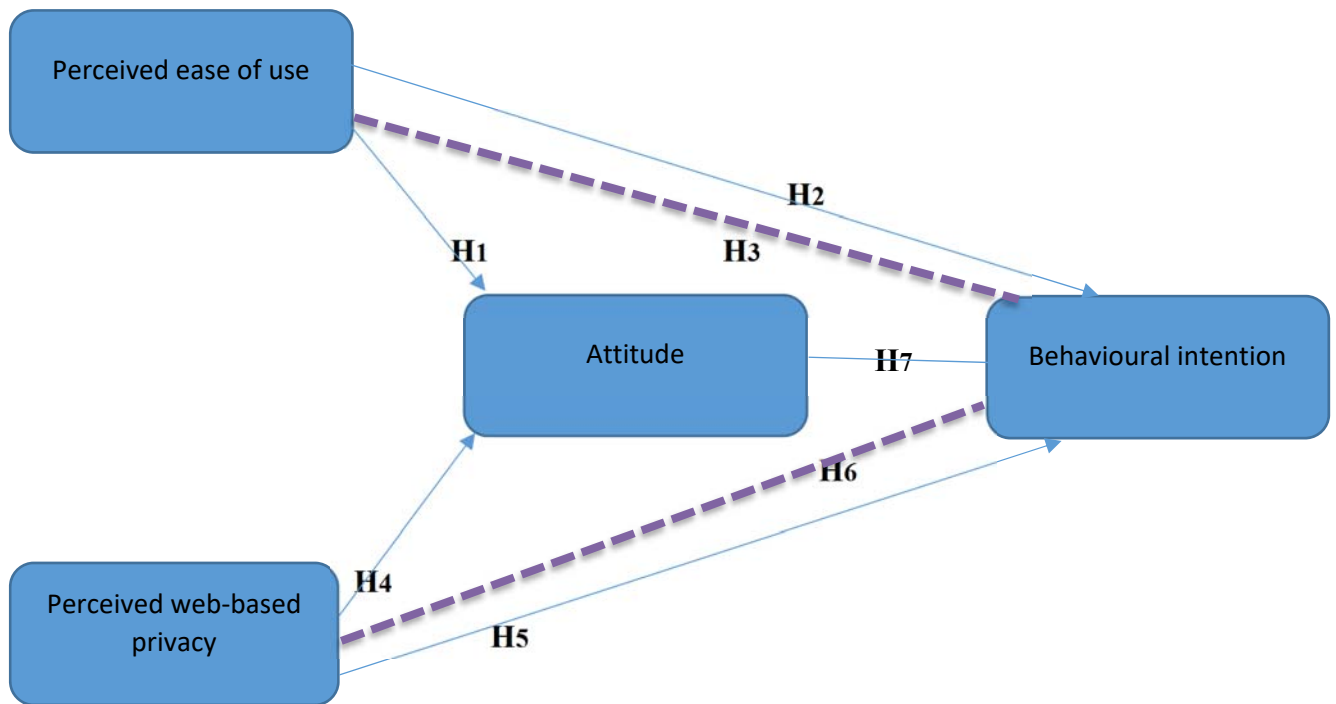
Omotayo (2015) refers to attitude as the manner in which an individual behaves in relation to negative or positive feelings about carrying specific behaviour. Fiaz, Ishrat, Razzaq and Khan (2014) and Ameer (2013) argues that attitude a strong predictor of potential users' intention to adopt Internet banking. In addition, attitude towards use has a relationship with e-banking adoption, according to Teo and Zhou (2014) and Lee and Ullah (2011), who have proved that attitude is a key factor that influences customers' personal financing usage. Priyangika, Perera, and Rajapakshe (2016) further argue that attitude is evenly divided between favouring and not

favouring the final adoption of technology; while Tan and Teo (1986) argue that attitude directly influences e-banking adoption. Considering this, the following hypothesis is formulated:

H7: Attitude significantly and positively influences the behavioural intention of Generation Y in favour of Internet banking adoption in South Africa.

Figure 1 illustrates the different constructs of the study as well as the hypothesised relationships between these constructs.

**Figure 1:** Proposed theoretical model



### 3. RESEARCH DESIGN AND METHOD

A quantitative and descriptive research design was followed. Data was collected from Generation Y banking customers between the ages of 18 and 35 residing in Gauteng province who have a bank account with any of the five major retail banks in South Africa (ABSA, Nedbank, Standard Bank, FNB and Capitec Bank) and who have made use of Internet banking services in the previous six months. The data was collected through the application of self-administered questionnaires and 147 research instruments enabled the research to secure data

analysis. Descriptive statistics and regression analysis was applied to measure the stated hypotheses.

## **4. RESULTS**

### **4.1 Reliability and validity**

Table 1 below reflects the different Cronbach Alpha values for the study. These values illustrate the reliability of the different scales used in the study. The values for all the constructs are above 0.7, which can be considered the lowest level of acceptable scale reliability, according to Pallant (2010). Considering this, the conclusion can be drawn that all four scales in the study were reliable. Face validity was secured through the application of items from the study by Rawashdeh (2015) and found to be valid and reliable. The different items in each construct were also reviewed by the authors, and a pilot study was done to test the validity of the research instrument prior to fielding.

**Table 1:** Cronbach Alpha values for the measurement constructs

<b>Construct</b>	<b>Cronbach Alpha</b>
Perceived ease of use	.841
Perceived web-based privacy	.930
Attitude	.882
Behavioural intention	.758

### **4.2 Demographic profile of respondents**

The largest number of respondents participating in the study were females (52,39 percent) who were born between 1989 and 1997 (78.9 percent). Concerning home language, 29.28 percent of the respondents were English, 49.65 percent had a university degree, and 38.09 percent were employed full time by an organisation.

### 4.3 Patronage habits of respondents

Table 2 reflects the mean score and standard deviation for the patronage habits of respondents. From the table it can be noted that respondents had been making use of their Internet banking provider for a period of almost four years.

**Table 2:** Patronage habits

Question	Standard deviation	Mean score
How long have you been using your Internet banking service provider (in years)?	3.078	3.80

### 4.4 Findings in terms of the four constructs measured

Tables 3, 4, 5 and 6 indicate the mean scores and standard deviations for each item in the constructs ‘perceived ease of use’, ‘perceived web-based privacy’, ‘attitude’ and ‘behavioural intention’.

**Table 3:** Perceived ease of use

Items measuring ease of use	Standard deviation	Mean
My interaction with Internet banking services is clear and understandable	1.152	6.00
I find Internet banking services easy to use	1.133	5.95
It would be easy for me to become skilful at using the Internet banking services	1.220	5.89
Interacting with Internet banking services does not require a lot of my mental effort	1.110	5.57
<b>Overall mean score</b>		<b>5.85</b>

From Table 3 it can be noted that respondents strongly agreed with the statements on the perceived ease of use of Internet banking services when considering adoption. Respondents indicated least agreement with the statement ‘Interacting with Internet banking services does not require a lot of my mental effort’ (mean = 5.57) and ‘It would be easy for me to become skilful at using the Internet banking services’ (mean = 5.89). Respondents agreed most with



‘My interaction with Internet banking services is clear and understandable’ (mean = 6.00) and ‘I find the Internet banking services to be easy to use’ (mean = 5.95).

**Table 4:** Perceived web-based privacy

Items measuring perceived web-based privacy	Standard deviation	Mean
I would feel secure sending personal information across the Internet banking facilities	1.816	4.33
The Internet banking services are a secure means through which to send personal information	1.713	4.43
I would feel totally safe providing personal information about myself over the Internet banking	1.846	4.33
Overall the Internet banking is a safe place to transmit personal information	1.780	4.43
<b>Overall mean score</b>		<b>4.37</b>

From Table 4 it can be noted that respondents did not strongly agree with statements on the perceived web-based privacy of Internet banking services of the five major banks when considering adoption. Respondents indicated least agreement with the statements ‘I would feel secure sending personal information across the Internet banking facilities’ of the five major banks (mean = 4.33) and ‘I would feel totally safe providing personal information about myself over time’ (mean = 4.33). Respondents agreed most with ‘The Internet banking services is a secure means through which to send personal information’ (mean = 4.43) and ‘Overall the Internet banking service of the five major banks is a safe place to transmit personal information’ (mean = 4.43).

**Table 5:** Attitude

Items measuring attitude	Standard deviation	Mean
In my opinion it would be very desirable to use the Internet banking services	1.428	5.66
I would like to use the Internet banking services	1.105	5.93
I hold a positive evaluation on Internet banking services	1.234	5.74
Using this method is a good idea	1.104	5.97
<b>Overall mean score</b>		<b>5.82</b>

From Table 5 it can be noted that respondents strongly agreed regarding statements on attitude towards Internet banking services when considering adoption. Respondents indicated least agreement with the statements ‘In my opinion it would be very desirable to use the Internet banking services’ (mean = 5.66) and ‘I hold a positive evaluation on Internet banking services’ (mean = 5.74). Respondents agreed most with ‘Using this method is a good idea’ (mean = 5.97) and ‘I would like to use the Internet banking services’ (mean = 5.93).

**Table 6:** Behavioural intention

Items measuring behavioural intention	Standard deviation	Mean
I intend to use or continue to use my current subscription of the Internet banking services in the future	1.192	5.95
I intend to continue my current use but will change the current Internet banking provider	2.151	4.37
I plan to use the Internet banking services in the future	1.220	6.11
<b>Overall mean score</b>		<b>6.03</b>

From Table 6 it can be noted that respondents strongly agreed with statements on behavioural intention towards Internet banking services when considering adoption. Respondents indicated least agreement with the statement ‘I intend to continue my current use, but will change the current Internet banking provider’ (mean = 4.37). Respondents agreed most with ‘I plan to use the Internet banking services in the future’ (mean = 6.11) and ‘I intend to use or continue to use my current subscription of the Internet banking services in the future’ (mean = 5.95).

## 4.5 Multiple regression analysis results

### 4.5.1 *Influence of perceived ease of use and perceived web-based privacy on attitude*

Multiple regression analysis was performed to determine the relationship between perceived ease of use and perceived web-based privacy and attitude. The results are reflected in Table 6.

**Table 7:** Influence of perceived ease of use and perceived web-based privacy on attitude

Model	Sum of squares	DF	Mean square	F	Sig.
Regression	52.256	2	26.132	36.775	0.000
Residual	89.536	145	.711		
Total	141.800	147			
	R <sup>2</sup>				
	0.369				
Model	Standardised coefficients, beta	T	Sig.		
(Constant)		5062	0.000		
Perceived ease of use	0.479	6.535	0.000		
Perceived web-based privacy	0.268	3.661	0.000		

Table 7 indicates that perceived ease of use and perceived web-based privacy exerted a statistically significant positive influence on attitude. Both perceived ease of use and perceived web-based privacy can be considered predictors of attitude towards the adoption of Internet banking services, although perceived ease of use was determined as a slightly stronger predictor since a one-unit increase in perceived ease of use will increase attitude by 47.9 percent compared to the 26.8 percent increase of perceived web-based privacy when considering beta. The researchers relied on a 95 percent level of confidence in the data analysis. This implies that a *p*-value of less than or equal to 0.05 means it is improbable that the results are the result of chance per se, according to the independent sample t-test. The independent variables elucidated around 37 percent ( $R^2 = 0.369$ ) of the variance in attitude. The regression model is significant at  $p < 0.000$ , and both perceived ease of use and perceived web-based privacy can be viewed as predictors of attitude. Therefore, the relationship between perceived ease of use and attitude is significant at  $p = 0.000$ , and the relationship between perceived web-based privacy and attitude is significant at  $p = 0.000$ . Hypotheses 1 and 4 can therefore be supported as both perceived ease of use and perceived web-based privacy positively influence attitude towards Internet banking adoption in South Africa.

#### 4.5.2 Influence of perceived ease of use and perceived web-based privacy on behavioural intention

Multiple regression analysis was performed to determine the relationship between perceived ease of use and perceived web-based privacy and behavioural intention. The results are reflected in Table 8.

**Table 8:** Influence of perceived ease of use and perceived web-based privacy on behavioural intention

Model	Sum of squares	DF	Mean square	F	Sig.
Regression	58.770	2	29.385	40.640	0.000
Residual	91.106	145	.723		
Total	149.876	147			
	R <sup>2</sup>				
	0.382				
Model	Standardised coefficients, beta	T	Sig.		
(Constant)		5062	0.000		
Perceived ease of use	0.589	6.535	0.000		
Perceived web-based privacy	0.109	3.661	0.131		

Table 8 indicates that perceived ease of use exerted a statistically significant positive influence on behavioural intention, but perceived web-based privacy did not. Perceived ease of use can be considered a predictor of behavioural intention towards the adoption of Internet banking services since a one-unit increase in perceived ease of use will increase behavioural intention by 20,9 percent compared to beta. The researchers relied on a 95 percent level of confidence in the data analysis. This implies that a p-value of less than or equal to 0.05 means it is improbable that the results are the result of chance per se, according to the independent sample t-test. The independent variables elucidated around 38 percent ( $R^2 = 0.382$ ) of the variance in behavioural intention. The regression model is significant at  $p < 0.000$ , and only perceived ease of use can be viewed as predictor of behavioural intention. Therefore, the relationship between perceived ease of use and behavioural intention is significant at  $p = 0.000$  and the relationship between perceived web-based privacy and behavioural intention is not significant at  $p = 0.131$ .

Hypothesis 2 can therefore be supported, but hypothesis 5 is rejected as only perceived ease of use positively influences behavioural intention towards Internet banking adoption in South Africa.

#### 4.5.3 *Influence of perceived ease of use, perceived web-based privacy and attitude on behavioural intention (mediation route)*

Multiple regression analysis was performed to determine the influence of perceived ease of use, perceived web-based privacy and attitude on behavioural intention through attitude as a mediator. The results are reflected in Table 9.

**Table 9:** Influence of perceived ease of use, perceived web-based privacy and attitude on behavioural intention (mediation route)

Model	Sum of squares	DF	Mean square	F	Sig.
Regression	96.261	3	32.087	74.808	0.000
Residual	53.615	144	.429		
Total	149.876	147			
	R <sup>2</sup>				
	0.634				
Model	Standardised coefficients, beta	T	Sig.		
(Constant)		1.826	0.000		
Perceived ease of use	0.287	4.479	0.000		
Perceived web-based privacy	-0.059	-1.021	0.309		
Attitude	.629	9.349	0.000		

Table 9 indicates that perceived ease of use exerted a statistically significant positive influence on behavioural intention through attitude as a mediator, whilst perceived web-based privacy had a statistically negative influence on behavioural intention through attitude as a mediator. Attitude had a statistically significant positive influence on behavioural intention as a mediator. Therefore, perceived ease of use can be considered a predictor of behavioural intention when

attitude is a mediator, and attitude on its own can be perceived as a predictor of behavioural intention towards the adoption of Internet banking services. Perceived web-based privacy cannot be perceived as a predictor of behavioural intention when attitude is a mediator. Attitude was determined as a much stronger predictor of behavioural intention than perceived ease of use, since a one-unit increase in attitude will increase behavioural intention by 62,9 percent compared to the 28.7 percent increase of perceived ease of use when considering beta. The researchers relied on a 95 percent level of confidence in the data analysis. This implies that a p-value of less than or equal to 0.05 means it is improbable that the results are the result of chance per se, according to the independent sample t-test. The independent variables elucidated around 63.4 percent ( $R^2 = 0.634$ ) of the variance in behavioural intention. The regression model is significant at  $p < 0.000$ , and both perceived ease of use and attitude can be viewed as predictors of behavioural intention. Therefore, the relationship between perceived ease of use and behavioural intention is significant at  $p = 0.000$ , and the relationship between perceived web-based privacy and behavioural intention is not significant at  $p = 0.309$  when attitude is a mediator. Attitude on its own does have a significant positive influence on behavioural intention at  $p = 0.000$ . Hypotheses 3 and 7 can, therefore, therefore be supported, as both perceived ease of use and attitude positively influence behavioural intention towards Internet banking adoption in South Africa. Hypothesis 6 is not supported as perceived web-based privacy does not influence behavioural intention when attitude is a mediator.

Table 10 indicates the support for the formulated hypotheses in the study.

**Table 10:** Hypothesis testing

Hypothesis	Sig.	Finding
H <sub>1</sub>	0.000	Supported
H <sub>2</sub>	0.020	Supported
H <sub>3</sub>	0.000	Supported
H <sub>4</sub>	0.000	Supported
H <sub>5</sub>	0.028	Supported
H <sub>6</sub>	0.309	Supported
H <sub>7</sub>	0.000	Not supported

## **5. MANAGERIAL IMPLICATIONS**

Concerning the implications of the study, retail banks in an emerging market should focus on creating user-friendly, secure websites that lead to a positive attitude and could result in Generation Y customers having positive behavioural intentions towards Internet banking adoption. There should be a continuous focus on making the Internet banking experience as effortless and easy to use as possible. This can be secured through an engaging platform that communicates with the user in his/her preferred language, providing off site access throughout the world and allowing the user to develop a personal profile that secure access through all modes of electronic devices.

Secondly, the marketing campaigns of the five retail banks in the study should be motivational in its message, driving internet banking adoption through clear and focused messages aimed at the Generation Y retail banking segment. Communication directed at this segment should convince the recipient that interacting with the retail bank's internet banking services will not need much psychological effort, will be easy to use and easily accessible from all over the world through all electronic devices. Furthermore, the retail bank's marketing campaigns should provide Generation Y with comfort in terms of the trustworthiness of the Internet banking service that it provides. This can be achieve through brief discussions on the fire walls made available by the retail bank to protect the personal information of the Generation Y banking customer, and how the bank is continuously doing research to improve on securing the protection of customer's personal information.

Thirdly, facilitation of Internet banking adoption requires the website to be secure. Retail banks should focus on securing the personal information of their customers and storing it securely. Thirdly, Internet banking adoption needs to be a desirable platform for banking. Therefore, retail banks need to make the Internet banking experience a seamless and beneficial one. Retail banks need to focus on making navigation through the website easy and pleasant and on improving its attractiveness to the customer, which includes having more visuals on the website.

Finally, retail banks should ensure that they possess in-depth information and know how of the different needs of Generation Y customers. A sympathetic approach that encompass an

understanding of the attitude of customers is a key factor in securing a delightful experience by the customer. Attitude and behavioural intention are strengthened when the supplier has a strong commitment to its customer base, has a definite passion for their needs and expectations, and delivers a high quality service. In addition, responding to customer needs in a fast and professional manner to address customer enquiries and complaints, can secure an enhanced functional value benefit for the customer when using an internet banking service.

## **6. LIMITATIONS AND DIRECTIONS FOR FURTHER RESEARCH**

The research findings are limited to one geographical region and cannot be generalised to other geographical areas. The study does not consider that most South Africans, especially those in rural areas, do not have access to the Internet and therefore cannot make use of Internet banking services. Secondly, considering that no sample frame was available, the convenience sampling technique was considered for the study. The results of the study therefore do not represent all the retail banking customers of the five major banks in South Africa that use Internet banking services. Thirdly, a sample error bias might be possible since the study applied the convenience sampling technique, as a non-probability sampling approach to the study. In future studies, researchers could investigate the influence of Internet access in rural areas on Internet banking adoption. Such studies could also investigate the behavioural intentions and attitude of Generation X toward Internet banking adoption, as they are a growing market segment.

## **7. CONCLUSION**

The aim of the study was to explore whether the attitude of Generation Y customers towards Internet banking services is influenced by perceived ease of use and perceived web-based privacy. In turn, the influence of their attitude on future behavioural intention was established. From an emerging market perspective, it is recommended that Generation Y customers be provided with service experiences that could lead to positive behavioural intentions.



## References

- Adesina, A.A., Ayo, C.K. & Uyinomen, O.E. 2010. 'An empirical investigation of level of user's acceptance of e-banking in Nigeria: Based on technology acceptance model', *Journal of Internet Banking and Commerce*, 3(2): 1-13.
- Ahmad, M.S., Rashid, S., Masood, M.T. & Ul Mujeeb, E. 2011. 'E-banking: A case study of Askari Commercial Bank Pakistan', *Management & Marketing Journal, University of Craiova*, November: 243-76.
- Al-Shbiel, S.O. & Ahmad, M.A. 2016. 'A theoretical discussion of electronic banking in Jordan by integrating technology acceptance model and theory of planned behavior', *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 6(3): 272-84.
- Ameer, I. 2013. 'Consumer attitude towards Islamic financing Iran', *International Journal of Management and Technology*, 3(10), 187-195.
- Bandura, A. 1988. 'Organisational applications of social cognitive theory', *Australian Journal of Management*, 13(2): 275-302.
- BCX. 2016. *Banking in a digitalised future*. Available from: <https://www.google.co.za/url?sa=t&source=web&rct=j&url=https://www.bcx.co.za/download-link/financial-article/&ved=0ahUKEwjDgLOItNnWAhUFOsAKHVzBB10QFggdMAA&usg=AOvVaw2ijqgYStWVtPzVueRqKL0T>.
- Bland, R.L. 1968. 'Privacy and Freedom. By Alan F. Westin' [book review], *Washington Lee and Law Review*, 25(1): 166-67. Available from: <https://scholarlycommons.law.wlu.edu/cgi/viewcontent.cgi?article=3659&context=wlulr>.
- Capgemini. 2014. *What makes Gen Y stick with a bank? Explore how banks can increase acquisition and foster retention of Gen Y customers*. Available from: [https://www.capgemini.com/wp-content/uploads/2017/07/gen\\_y\\_whitepaper.pdf](https://www.capgemini.com/wp-content/uploads/2017/07/gen_y_whitepaper.pdf).
- Chau, P.Y.K. 1996. 'An empirical assessment of a modified technology acceptance model', *Journal of Management Information Systems*, 13(2): 185-204.
- Cho, Y. C., & Sagynov, E. 2015. Exploring factors that affect usefulness, ease of use, trust, and purchase intention in the online environment. *International Journal of Management & Information Systems (Online)*, 19(1): 21-36.
- Chong, A.Y., Chan, F.T.S. & Ooi, K. 2012. 'Predicting consumer decisions to adopt mobile commerce', *Decision Support Systems*, 53(1): 34-43.
- Davis, F.D. 1989. 'Perceived usefulness, perceived ease of use, and user acceptance of information technology', *MIS Quarterly*, 13(3): 319-40.

Farrington, R. 2016. *Millennials and banking: What features really matter to Gen Y*. Available from: <https://thecollegeinvestor.com/18055/millennials-banking-features-really-matter-gen-y/>.

Fathima, A & Muthumani, S. 2016. Factors underlying formation of consumer trust and its impact on intention to adopt online banking. 13. 361-372.

Fiaz, U., Ishrat, S., Razzaq, M. , Khan, T . 2014. An investigation of factors affecting usage onn adoption of Internet banking & mobile banking in Pakistan, 4(2):478-501.

Fishbein, M. & Ajzen, I. 1975. *Belief, attitude, intention and behaviour: An introduction to theory and research*. Reading, MA: Addison-Wesley.

Fortes, N., & Rita, P. 2016. Privacy concerns and online purchasing behaviour: Towards an integrated model. *European Research on Management and Business Economics*, 22(3), 167-176.

Hair, J.F., Black, W.C., Babin, B.J. & Anderson, R.E. 2010. *Multivariate data analysis*. 7th Edition. Upper Saddle River: Pearson Education.

John, J. S., Vedder, R., & Guynes, S. 2017. *Offshoring and social exchange: a social exchange theory perspective on offshoring relationships*. *ACM SIGCAS Computers and Society*, 47(1), 15-23.

KPMG. 2017. *Capitalising on the banking demands of the Gen Y professionals: Banking on the future report 2017*. 3rd Edition. Available from: <https://home.kpmg.com/au/en/home/media/press-releases/2017/03/gen-y-banking-demands-15-mar-2017.html>.

Lee, K. & Ullah, S. 2011. 'Customers' attitude toward Islamic banking in Pakistan', *International Journal of Islamic and Middle Eastern Finance and Management*, 4(2): 131-45.

Maduku, D.K. 2014. 'Customers' adoption and use of e-banking services: The South African perspective', *Banks and Bank Systems*, 9(2): 78-88.

Mobile Marketing Association of South Africa. 2014. *Annual digest, 2014*. Available from: [http://cdn1.cloudwrx.com/images/88/MMA\\_Booklet\\_Draft\\_Final.pdf](http://cdn1.cloudwrx.com/images/88/MMA_Booklet_Draft_Final.pdf).

Maitlo, G.M., kaz, Z.H. , Khashleleyi, A. M Shaikn, M. 2013. Factors that influence the adoption of Internet banking services in Hyderabad. *International journal of economic and management science*, 4(1):216.

Morrison, K. 2015. *Survey: 90% of millennials believe technology creates more opportunity*. Adweek. Available from: <http://www.adweek.com/digital/survey-90-of-millennials-believe-technology-creates-more-opportunity/>.

Novak, T.P., Hoffman, D.L. & Yung, Y.F. 2000. 'Measuring the customer experience in online environments: A structural modelling approach', *Marketing Science*, 19(1): 22-42.

Omotayo, E.O. 2015. Factors influencing intention to adopt Internet banking by postgraduates of the university of ibadan, Nigeria, 20(3): 24-29.

Ozment, J. & Morash, E.A. 1994. 'The augmented service offering for perceived and actual service quality', *Journal of the Academy of Marketing Science*, 22(4): 352-63.

Pallant, J. 2010. *SPSS survival manual*. Maidenhead: McGraw-Hill.

Poon, W.C. 2007. 'Users' adoption of e-banking services: The Malaysian perspective', *Journal of Business & Industrial Marketing*, 23(1): 59-69.

Priyangika, R. D., Perera, M. S. S., & Rajapakshe, D. P. 2016. An Empirical Investigation on Customer Attitude and Intention towards Internet Banking: A Case of Licensed Commercial Banks in Colombo District, Sri Lanka.

Raftery, D. & Lalli, S. 2016. *The future of banking: 2025 – Rise of digital banking superstores*. Stamford, CT: Greenwich Associates.

Rawashdeh, A. 2015. 'Factors affecting adoption of Internet banking in Jordan: Chartered accountant's perspective', *International Journal of Bank Marketing*, 33(4): 510-29.

Redmond, Mark V., "Social Exchange Theory" 2015. *English Technical Reports and White Papers*. 5.

Shaikh, F. M., Kazi, Z. H., & Khaskheley, A. 2014. Factors that influence the adoption of online banking services in Hyderabad. *Romanian Statistical Review Supplement*, 62(11), 49-63.

Sanli, B. & Hobikoğlu, E. 2015. 'Development of Internet banking as the innovative distribution channel and Turkey example', *Journal of Internet Banking and Commerce*, 20(3): 1-16.

Sheehan, K.B. & Hoy, M.G. 2000. 'Dimensions of privacy concern among online consumers', *Journal of Public Policy & Marketing*, 19(1): 62-73.

Sierra, J.J. & McQuitty, S. 2005. 'Service providers and customers: Social exchange theory and service loyalty', *Journal of Services Marketing*, 19(6): 392-400.

Tan, C.T. & Teo, C. 1986. 'Intention, attitude and social influence in banking selection: A study in an Oriental culture', *International Journal of Bank Marketing*, 4(3): 43-53.

Teo, T., & Zhou, M. 2014. Explaining the intention to use technology among university students: a structural equation modeling approach. *Journal of Computing in Higher education*, 26(2): 124-142.

Wang, Y.M, Wang, Y.S., Lin, H.H. & Tang, T.I. 2003. 'Determinants of user acceptance of Internet banking: An empirical study', *International Journal of Service Industry Management*, 14(5): 501-19.

Warren, S.D. & Brandeis, L.D. 1890. 'The right to privacy', *Harvard Law Review*, 4(5): 193-220.

We Are Social & Hootsuite. 2017. *Digital in 2017 overview*. Available from: <https://www.slideshare.net/wearesocialsg/digital-in-2017-global-overview>.

Whiteside, V. 2016. *Inside the Millennial mind: Marketing to Generation Y*. Available from: [http://www.huffingtonpost.co.uk/vanessa-whiteside/inside-the-millennial-min\\_b\\_9901494.html](http://www.huffingtonpost.co.uk/vanessa-whiteside/inside-the-millennial-min_b_9901494.html).

Zhu, D., Lee, Z. C., & Chung, C. 2016. *Exploring the negative side of social networking sites: The role of privacy, risk and trustworthiness*. Proceedings of Academics World International Conference, Washington, D.C, USA, 12th June 2016.