

# ATTITUDE AND BEHAVIORAL INTENTION TOWARDS INTERNET BANKING ADOPTION OF GENERATION Y CUSTOMERS – AN EMERGING MARKET PERSPECTIVE

- **Conference Track:** Relationship marketing, social connectedness and consumer networks

## AUTHORS' PROFILES

*Siphamandla Bingwa & Prof M Roberts-Lombard\**

Department of Marketing Management, University of Johannesburg, South Africa

Department of Marketing Management  
School of Consumer Intelligence and Information Systems  
University of Johannesburg  
PO Box 524  
Auckland Park, Johannesburg  
South Africa  
2006  
Email: [mornayrl@uj.ac.za](mailto:mornayrl@uj.ac.za)

*Dr Olumide Jaiyeoba*

Department of Business and Accounting, Botho University,

Department of Business and Accounting  
Faculty of Post Graduate Studies and Research  
Botho University  
Botho Education Park  
P.O. Box 501564  
Kgale, Gaborone  
Botswana  
Email: [olujaiyeoba@gmail.com](mailto:olujaiyeoba@gmail.com)

\* Corresponding author

## **ABSTRACT**

**Purpose** – The study investigates the extent to which perceived usefulness and perceived web-based privacy influences the attitude and behavioral intention towards internet banking adoption of Generation Y customers an emerging market.

**Design/methodology/approach** – An exploratory research design was followed and the data was collected from Generation Y internet banking customers between the ages of 18 and 35 who are internet bankers of the five largest retail banks in South Africa, and who reside in the Gauteng Province. A total of 300 useable questionnaires was collected for analysis. A multiple regression analysis was applied to establish the relationship between perceived usefulness, perceived web-base privacy, attitude and behavioral intension. Furthermore, the measurement and structural models were assessed.

**Findings** – Perceived usefulness and perceived web-based privacy influence customers' attitude towards the adoption of internet banking, while attitude significantly and positively influences customers' behavioral intentions.

**Research implications** – The model tested confirms that the hypothesized relationship between perceived usefulness, attitude and behavioral intention, perceived web-based privacy and behavioral intention on internet banking is acknowledged and adopted by Generation Y banking customers. Customer attitude is linked to the two antecedents (perceived usefulness and perceived web-based privacy) and their outcome in behavioral intention.

**Managerial implications** – The findings can assist internet banking service providers in understanding how perceived usefulness and perceived web-based privacy can foster the adoption of internet banking, ultimately leading to positive attitude and behavioral intentions of customers.

**Originality/value** – This study focuses on attitude and behavioral intentions and determines the interrelationship with its antecedents. This study contributes to current research on attitude and behavioral intentions towards the adoption of internet banking in South Africa, as this topic is underresearched.

**Keywords** – Perceived usefulness, perceived web-based privacy, attitude, behavioral intention, internet banking service providers, internet banking adoption, Generation Y.

## **1. INTRODUCTION**

Banks in South Africa are constantly refining their strategies to meet the needs of Generation Y customers by means of cost effective and effortless banking methods (KPMG, 2016). According to Joyce (2014), Generation Y banking customers in South Africa seek 24/7 access to their banking accounts either for payments or the transferring of funds. She further argues that Generation Y banking customers in South Africa want to be in control of their financial affairs. A total of 68% of internet banking customers between the ages of 18 to 25 in South Africa prefer to interact with their banks online using Smartphones or tablets (Marous, 2016). Based on a survey by Columinate (2015), a total of 66% of Generation Y banking customers utilize internet banking as a channel for account transfers or checking account balances. Generation Y is a technology know-how generation seeking control and financial independence through the application of technology (Deloitte, 2016). It is therefore imperative for banks to understand the internet banking needs of Generation Y in South Africa to ensure that they (banks) are able to deliver on the internet banking requirements of this market segment. Chong, Chan and Ooi (2012) argue that despite the growing body of research in the area of internet banking adoption, it is still not clear how factors such as perceived usefulness and perceived web-based privacy interact with variables such as attitudes and behavioral intentions in an emerging African economy such as South Africa.

From a theoretical perspective, this study contributes by developing a model with variables that will give insight on the adoption of internet banking amongst Generation Y customers in South Africa. This model illustrates variables such as perceived usefulness and perceived web-based privacy, and how these variables influence the attitude and behavioral intention of Generation Y internet banking customers from an emerging market perspective. From a managerial perspective, this study contributes in potentially assisting banks in South Africa, as internet banking service providers, in understanding how perceived usefulness and perceived web-based privacy can foster the adoption of internet banking amongst Generation Y customers. This will ultimately lead to the creation of a positive attitude and behavioral intention towards internet banking adoption amongst Generation Y banking customers.

This paper provides an overview of the context within which the study is set. This is followed by an exposition of the theories grounding the study and an explanation of the key constructs of the study. The hypotheses for the study are presented and a theoretical model is proposed. The research methodology is followed by the results, the findings and the managerial implications of the study.

## **2. LITERATURE REVIEW**

## **2.1 Theories grounding the study**

The study is grounded on two theories, the Theory of Planned Behaviour (TPB) and the Social Exchange Theory. The Theory of Planned Behaviour (TPB) was established by Ajzen (1991) and suggested that the behavior of individuals was a hundred percent voluntary behavior. TPB argues that the immediate antecedent of an actual behavior is intention (Lin, and Chang, 2011). Kondasani and Panda (2016) state that an individual's behavioral achievement depends on the intention and the ability, which are highlighted in the TPB. Tolliver (2016) states that within the framework of TPB, intention is used to indicate how ready an individual is to perform a specific behaviour. Cooke, Dahdah, Norman and French (2016) concur by stating that TPB predicts the behavior of an individual and is determined by their intention which is influenced by attitude.

The Social Exchange Theory (SET) serves as a basis to explain relational exchanges that take place in societies (Blau, 1964; Homans, 1961; Munzel & Kunz, 2014: 51). SET explains how individuals feel about the elements of a relationship with another person. Redmond (2015) describes SET as a social behavior that involves social exchanges when people are motivated to gain valuable returns. He furthermore adds that humans seek positive returns on what they exchange. Exchanges are assessed according to their results. This can be in the form of monetary gains or losses, social benefits (e.g. approval or praise) or social punishment (e.g. prejudice, discrimination) (Bagozzi, 1978). In the light of the growth in the acceptance of internet banking, internet banking influences the marketability of banking services as it provides customers with the convenience of performing transactions without visiting the physical branch. There has been an accelerating competition amongst retail banks through the integration of technology as a differentiating factor (Simatele, 2015). Khaidy (2015) concurs by stating that the Internet has become the new form of communication and conducting business. E-commerce has become the new form of supplier-customer engagement for customers, and encompasses the selling and buying of services and goods through the usage of wireless handheld devices such as mobile devices and personal laptops. According to Fathima and Muthumani (2016), by providing a service online using mobile applications, sellers are able to capture a larger customer base willing to spend their income at the supplier's storefront. Therefore, SET departs from the argument that in the modern era of economic exchange, individuals will continue to take part in the exchange relationship if perceived rewards exceed their perceived cost (John, Vedder & Guynes, 2017).

## **2.2 Theoretical model development**

### *2.2.1 The interrelationship between perceived usefulness and attitude*

Davis (1989) refers to perceived usefulness as the subjective perception of a user who is using a specific information technology system that will increase his performance in the organisation. Tarhini, El-Masri, Ali and Serrano (2016) state that if the outcome of using internet banking is useful or beneficial to individuals, they will have a positive attitude towards the use of internet banking. Ezzi (2014) predicts that people use internet banking because of its usefulness. Alshbiel and Ahmad (2016) state that an individual's attitude towards internet banking is formed based on the perceived usefulness of it. In addition, they conclude by stating that that perceived usefulness determines an individual's attitude towards the adoption of internet banking. Based on these findings, the following hypothesis is formulated:

*H<sub>1</sub>: There is a positive relationship that exists between perceived usefulness and attitude towards internet banking adoption.*

### *2.2.2 The interrelationship between perceived web-based privacy and attitude*

Web-based privacy can be described as the internet users' concern with regard to the degree of control they have over the collection of their personal data and the usage of the data over the internet (Putri, 2015). According to Johansson (2016), online banking requires personal information such as pin numbers and bank account details, and therefore Generation Y customers are concerned about web privacy and this may lead to a negative attitude towards internet banking. Tarhini, El-Masri, Ali and Serrano (2016) state that the Generation Y web-based privacy concerns affect their attitude towards internet banking, creating a barrier against the adoption of internet banking. Furthermore, they add that Generation Y needs assurance that they will be protected against risk of fraud, influencing their intention to use internet banking positively. When generation Y customers feel safe using an internet banking site, they are likely to develop a positive attitude because the fear of uncertainty will be eliminated (Roy, Balaj, Keashawani & Sekhon, 2017). Therefore, considering these findings, the following hypothesis is formulated.

*H<sub>2</sub>: There is a positive relationship that exists between perceived web-based privacy and attitude towards internet banking adoption.*

### *2.2.3 The interrelationship between perceived usefulness and behavioral intention*

Khan, Khan and Xiang (2017) argue that perceived usefulness encompasses the degree to which users believe that using internet banking will be more efficient, advantageous and conducive compared to traditional banking methods or visiting the physical branch. They furthermore add that perceived usefulness is the key driver to accepting online banking services. Bryson and Atwal (2013) concur by arguing that the perceived usefulness of internet banking relates to the perceived benefit of having direct access to banking services anywhere and anytime. In terms of behavioral intention, Khater, Almansour and Mahmoud (2013) concur, stating that behavioral intention is a factor that indicates an individual's readiness to perform a certain behavior. Cho and Sagynov (2015) support this argument, stating that perceived usefulness has an impact on the consumers' intention to adopt internet banking services. The relationship between perceived usefulness and behavioral intention is therefore positive, especially in the banking industry where banking customers perceive this relationship as an inherent part of their decision-making process when it comes to online banking. Based on these findings, the following hypothesis is formulated:

*H3: There is a positive relationship that exists between perceived usefulness and behavioral intention towards internet banking adoption.*

#### *2.2.4 The interrelationship between perceived web-based privacy and behavioral intention*

Alwan and Al-Zubi (2016) state that an individual's concern with regard to privacy will influence his/her behavioral intention to openly disclose private information on the internet. Previous studies by Safeena, Kammani and Date (2017) have highlighted the level of privacy concerns as an important factor that determines the adoption of internet banking. According to Gill, Bunker and Seltsikas (2015), perceived web-based privacy has a strong influence on the willingness of Generation Y to use internet banking. Nasir, Wu, Yagu and Li (2015) concur by stating that Generation Y is specifically concerned about a risk factor such as online hackers when considering the adoption of online banking services. Therefore, web-based privacy concerns may reduce the adoption of internet banking services by Generation Y. With this being stated, it can be argued that web-based privacy may have an influence on attitude towards internet banking (Putri, 2015). Therefore, the following hypothesis is formulated:

*H4: There is a positive relationship that exists between web-based privacy and behavioral intention towards internet banking adoption.*

### *2.2.5 The interrelationship between attitude and behavioral intention*

Attitude towards behavior is the degree to which performance of the behavior is positive or negatively valued (Omotayo, 2015). Shanmagam, Savarimuthu and Wen (2014) argue that attitude is a predictor of internet banking adoption, and that attitude has a positive effect on the intention to use internet banking services. In addition, Alshbiel and Ahmad (2016) argue that in the context of internet banking, attitude is an individual's feelings towards the adoption of internet banking. Ezzi (2014) support this argument by stating that a positive attitude will increase acceptance, while a negative attitude will decrease acceptance. According to Teo and Zhou (2014), attitude determines the behavioral intention to use a technology. Therefore, if there is a positive attitude towards internet banking, the intention to use it is a strong predictor of the adoption of internet banking services (Aldhmour & Sarayrah, 2016). Marakarkandy, Yajnik and Dasgupta (2017) argue that if an individual has a positive attitude towards internet banking, they are most likely to adopt it. Based on these findings, the following hypothesis is formulated:

*H5: There is a positive relationship that exists between attitude and behavioral intention towards internet banking adoption*

### *2.2.6 Attitude mediates between Perceived Usefulness and Behavioral Intention*

Das, Dash, Sahoo and Mohanty (2017) state that the main reason people use internet banking services is because they may find the services useful when performing their transactions, leading to a positive attitude towards internet banking. Gajanayake, Sahama and Iannella (2013) argue that attitude therefore affects the behavioral intention of consumers towards internet banking. If Generation Y customers find internet banking useful because of the beneficial outcomes, they will have a positive attitude, leading to the adoption of internet banking (Faezeh, 2014). Deventer, De Klerk and Bevan-Dye (2017) also argue that Generation Y will develop a positive attitude towards internet banking if it allows them to do their banking effectively and successfully, and provides a beneficial advantage when using such as service (Saralaya, Anjali, Reddy & Shivaprassad, 2017). Against this background the following hypothesis is formulated:

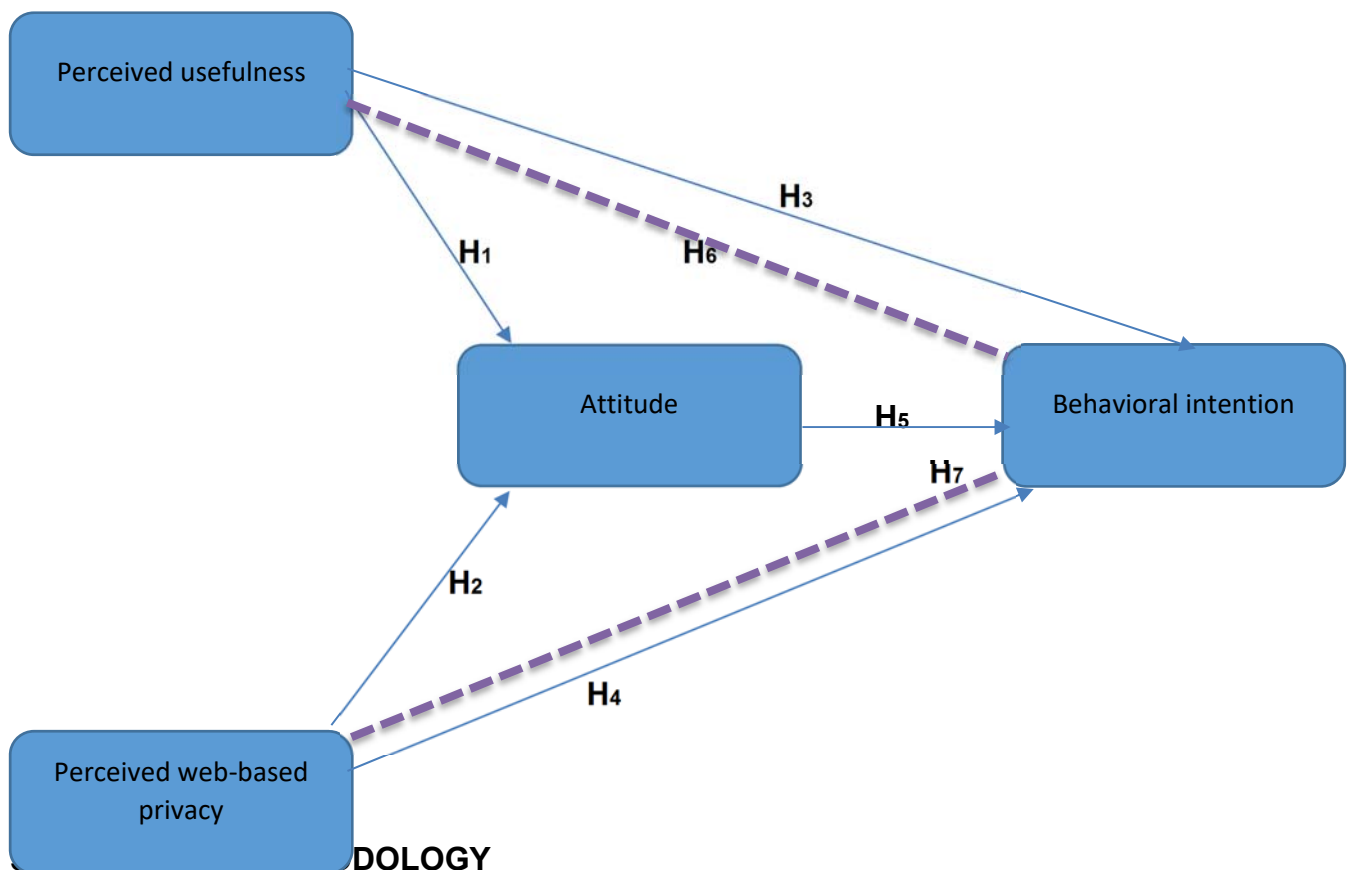
*H6: Perceived usefulness has a significant indirect effect on behavioral intention in favour of internet banking adoption as mediated by the attitude towards such adoption.*

### *2.2.7 Attitude mediates between Perceived Web Privacy and Behavioral Intention*

Gill et al. (2015) argue that individuals may be anxious about the uncertainty of using internet banking and stress that their internet banking service providers may behave opportunistically, and not in their best interest. With this being stated, it can be argued that web-based privacy may have a remarkable influence on the attitude towards internet banking and behavioral intention. According to Raza, Jawaid and Hassan (2015), if individuals are of the opinion that using internet banking is secure and safe, it is likely to bring a positive attitude and lead to adoption (Bashir & Madhavaiah 2015). According to Gill et al. (2015), it is therefore important for banks to eliminate risks associated with financial transactions on the internet in order to entice individuals such as Generation Y to engage in internet banking. Based on these findings, the following hypothesis is formulated:

*H7: Perceived web-based privacy has a significant indirect effect on behavioral intention in favour of internet banking adoption as mediated by the attitude towards such adoption.*

**Figure 1:** Proposed theoretical model



A quantitative approach and descriptive research design were followed. Data was collected from Generation Y internet banking customers between the ages of 18-35 who are internet bankers of the five largest South African retail banks (namely ABSA, FNB, Standard Bank,



NEDBANK and Capitec Bank) and who reside in the Gauteng Province. A total of 300 useable questionnaires was collected for analysis. A self-administered questionnaire was applied for data collection. The questionnaire started with an introduction and three screening questions to secure that potential respondents were part of the target population of the study. The questionnaire included sections inquiring about the demographic profile and internet banking usage habits of respondents. To measure the constructs of the study, a seven-point unlabelled Likert-type scale was used to measure the level of agreement with respect to items measuring perceived usefulness, perceived web-based privacy, attitude and behavioral intention where 1 indicated 'strongly disagree', and 7 indicated 'strongly agree'. The scales for the different constructs in the study were adopted from Rawashdeh (2015). Respondents who chose not to participate in the study were accommodated, and there were no ethical sensitive statements included in the questionnaire, supporting an ethical approach towards the study.

The data was collected over a six-week period. A total of 147 questionnaires could be used in the analysis and this realised sample falls within the minimum sample range as recommended by Hair, Black, Babin and Anderson (2010) for conducting an analysis with four constructs. Cronbach Alpha values were calculated to measure the reliability of the items used in the research instrument. After the data had been edited, it was entered into SPSS 23.0. Descriptive statistics was calculated using SPSS 23.0 to gain insight into the demographic profile of respondents, and the items measuring the four constructs of the study. An exploratory factor analysis (EFA) was used to uncover the interrelationships between the items measuring the study's constructs. The EFA resulted in the different constructs in the study being retained. Statistical techniques such as multiple regression analysis and independent sample t-tests were used to test the different hypotheses formulated for the study.

## 4. RESULTS

### 4.1 Reliability

The Cronbach Alpha values for the different constructs in the study are shown by Table 1. These values illustrate the reliability for the different scales used in the study. The values for each construct are above 0.7, which can be considered as the minimum level of acceptable scale reliability according to Pallant (2010:97). Considering this, the conclusion can be made that all four scales in the study are reliable.

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

Construct	Cronbach Alpha
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Perceived ease of use	.950
Perceived web-based privacy	.930
Attitude	.882
Behavioral intention	.758

#### 4.2 Validity

Face validity was secured through the application of items from the study by Rawashdeh (2015) which were found to be valid and reliable. The different items in each construct were also reviewed by the authors and a pilot study was conducted to test the validity of the questionnaire prior to fielding. Rawashdeh (2015) further indicated that discriminate and convergent validity was established for the different items used in the four constructs in their study.

#### 4.3 Demographic profile of respondents

The majority of respondents participating in the study were females (52,39%) who were born between 1989-1997 (78.9%). The home language of the majority of respondents was English (29.28%), they have a university degree (49.65%) and are employed full-time by an organisation (38.09%).

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

Tables 2, 3, 4 and 5 provide an illustration of the mean scores and standard deviations for each item in the construct measuring '*Perceived ease of use*', '*Perceived web-based privacy*', '*attitude*' and '*behavioral intention*'.

**Table 2:** Perceived usefulness

Items measuring usefulness	Standard deviation	Mean
Interacting with internet banking services does not	1.648	5.57

require a lot of my mental effort		
I find the internet banking services to be easy to use	1.501	5.95
My interaction with internet banking services is clear and understandable	1.521	5.09
It would be easy for me to become skillful at using the internet banking services	1.670	4.82
<b>Overall mean score</b>		<b>5.05</b>

From Table 2 it can be noted that respondents agree regarding statements on the perceived usefulness of internet banking services when considering adoption. Respondents indicated the lowest agreement with the statement, '*It would be easy for me to become skillful at using the internet banking services*' (mean = 4.82) and '*My interaction with internet banking services is clear and understandable*' (mean = 5.09). Respondents agreed the most with '*I find the internet banking services to be easy to use*' (mean = 5.95) and '*Interacting with internet banking services does not require a lot of my mental effort*' (mean = 5.57).

**Table 3:** Perceived web-based privacy

Items measuring perceived web-based privacy	Standard deviation	Mean
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I would feel secure sending personal information across the internet banking facilities	1.816	4.33
The internet banking services is 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 facility	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 3 it can be noted that respondents do not strongly agree regarding statements on the perceived web-based privacy internet banking services when considering adoption. Respondents indicated the lowest agreement with the statement, '*I would feel secure sending personal information across the internet banking facilities*' (mean = 4.33) and '*I would feel totally safe providing personal information about myself over time*' (mean = 4.33). Respondents agreed the most with, '*The internet banking service is a secure means through which to send personal information*' (mean = 4.43) and '*Overall, the internet banking is a safe place to transmit personal information*' (mean = 4.33).

**Table 4:** Attitude

Items measuring attitude	Standard deviation	Mean
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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 4 it can be noted that respondents strongly agreed regarding statements on the attitude towards internet banking services when considering adoption. Respondents indicated the lowest agreement with the statement, *'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 the most with *'Using this method is a good idea'* (mean = 4.43) and *'I would like to use the internet banking services'* (mean = 5.93).

**Table 5:** Behavioral intention

<b>Items measuring behavioral intention</b>	<b>Standard deviation</b>	<b>Mean</b>
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 5 it can be noted that respondents strongly agreed regarding statements on behavioral intention towards internet banking services when considering adoption. Respondents indicated the lowest agreement with the statement, *'I intend to continue my current use, but will change the current internet banking provider'* (mean = 4.37). Respondents agree the 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 analyses results

##### 4.5.1 Influence of perceived usefulness and perceived web-based privacy on attitude

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

**Table 6:** The influence of perceived usefulness and perceived web-based privacy on attitude

Model	Sum of Squares	DF	Mean Square	F	Sig.
Regression	26.318	2	13.159	14.358	0.000
Residual	115.482	145	.917		
Total	141.800	147			
	R <sup>2</sup>				
	0.431				
Model	Standardised coefficients, Beta	T	Sig.		
(Constant)		5062	0.000		
Perceived usefulness	0.186	2.191	0.030		
Perceived web-based privacy	0.335	3.951	0.000		

Table 6 indicates that perceived usefulness and perceived web-based privacy exerted a statistically significant positive influence on attitude. Both perceived usefulness and perceived web-based privacy can be considered as predictors of attitude towards the adoption of internet banking services, although perceived web-based privacy was established as a slightly stronger predictor, since one unit increase in perceived web-based privacy will increase attitude by 33.5%, compared to the 18.6 percent increase of perceived usefulness when considering Beta. The researchers relied on a 95% level of confidence in the data analysis. This implies that a p-value of less than or equal to 0.05 means that 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 43% (R<sup>2</sup>=0.431) of the variance in attitude. The regression model is significant at p<0.000 and both perceived usefulness and perceived web-

based privacy can be perceived as predictors of attitude. Therefore, the relationship between perceived usefulness and attitude is significant at  $p = 0.030$ , and the relationship between perceived web-based privacy and attitude is significant at  $p = 0.000$ . Hypotheses 1 and 2 can therefore be supported as both perceived usefulness and perceived web-based privacy positively influence attitude towards internet banking adoption in South Africa.

#### 4.5.2 Influence of perceived usefulness and perceived web-based privacy on behavioral intention

Multiple regression analysis was performed to determine the relationship between perceived usefulness and perceived web-based privacy and behavioral intention. The results are reflected in Table 7.

**Table 7:** Influence of perceived usefulness and perceived web-based privacy on behavioral intention

Model	Sum of Squares	DF	Mean Square	F	Sig.
Regression	16.212	2	8.106	7.641	0.001
Residual	133.664	145	1.016		
Total	149.876	147			
	R <sup>2</sup>				
	0.094				
Model	Standardised coefficients, Beta	T	Sig.		
(Constant)		5062	0.000		
Perceived ease of use	0.208	2.351	0.020		
Perceived web-based privacy	0.197	2.223	0.028		

Table 7 indicates that both perceived ease of use and perceived web-based privacy exerted a statistically significant positive influence on behavioral intention. Therefore, both perceived ease of use and perceived web-based privacy can be considered as predictors of behavioral intention towards the adoption of internet banking services, although perceived ease of use was determined as a slightly stronger predictor, since one unit increase in perceived ease of use will increase behavioral intention by 20,8% compared to the 19.7 percent increase of

perceived web-based privacy when considering Beta. The researchers relied on a 95% level of confidence in the data analysis. This implies that a p-value of less than or equal to 0.05 means that 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 9% ( $R^2=0.094$ ) of the variance in behavioral intention. The regression model is significant at  $p<0.000$  and both perceived ease of use and perceived web-based privacy can be perceived as predictors of behavioral intention. Therefore, the relationship between perceived ease of use and behavioral intention is significant at  $p = 0.020$ , and the relationship between perceived web-based privacy and behavioral intention is significant at  $p = 0.028$ . Hypotheses 3 and 4 can therefore be supported as both perceived ease of use and perceived web-based privacy positively influence behavioral intention towards internet banking adoption in South Africa.

#### *4.5.3 The influence of perceived usefulness, perceived web-based privacy and attitude on behavioral intention (mediation route)*

Multiple regression analysis was conducted to establish the relationship between perceived ease of use, perceived web-based privacy and attitude on behavioral intention through attitude as a mediator. The results are reflected in Table 8.



**Table 8:** Influence of perceived usefulness, perceived web-based privacy and attitude on behavioral intention (mediation route)

Model	Sum of Squares	DF	Mean Square	F	Sig.
Regression	88.221	3	29.407	59.621	0.000
Residual	61.655	144	.493		
Total	149.876	147			
	R <sup>2</sup>				
	0.579				
Model	Standardised coefficients, Beta	T	Sig.		
(Constant)		3.702	0.000		
Perceived usefulness	.066	4.479	0.287		
Perceived web-based privacy	-.060	-.936	0.351		
Attitude	.768	12.083	0.000		

Table 8 indicates that perceived usefulness did not exert a statistically significant positive influence on behavioral intention through attitude as a mediator, while perceived web-based privacy had a statistically negative influence on behavioral intention through attitude as a mediator. Attitude had a statistically significant positive influence on behavioral intention as a mediator. Therefore, neither perceived usefulness nor perceived web-based privacy can be perceived as predictors of behavioral intention when attitude is a mediator. Attitude was determined as a strong predictor of behavioral intention, since one unit increase in attitude will increase behavioral intention by 76,8% when considering Beta. The researchers relied on a 95% level of confidence in the data analysis. This implies that a p-value of less than or equal to 0.05 means that 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 58% (R<sup>2</sup>=0.579) of the variance in behavioral intention. The regression model is significant at p<0.000 and both perceived ease of use and attitude can be perceived as predictors of behavioral intention. Therefore, the relationship between Perceived ease of use and behavioral intention is not significant at p = 0.287, and the relationship between perceived web-based privacy and behavioral intention is also not significant at p = 0.351 when attitude is a mediator. Attitude on its own has a significant positive influence on behavioral intention at p=0.000. Hypotheses 5 can be accepted, while hypotheses 6 and 7 are not supported.

Table 9 illustrates the support for the formulated hypotheses in the study.

**Table 9:** Hypothesis testing

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

## 5. DISCUSSION

The study makes both a theoretical and a practical contribution. From a theoretical perspective, the results confirm that the measurement scales used to measure the customers' attitude and behavioral intentions constructs, its antecedents and the outcomes, are reliable and valid. The model proposed has been verified, confirming the B2C relationship between customer attitude and behavioral intention and its antecedents amongst Generation Y internet banking customers, in an emerging African economy.

From a managerial perspective, the study contributes in potentially assisting retail banks to understand how perceived usefulness and perceived web-based privacy can foster the adoption of internet banking, ultimately leading to positive attitude and behavioral intention from the customer. It is important to note that the expectations of the customer change due to the economy, competition and previous experience, and that market segments may have different expectation sets. It is therefore important for retail banks to remain innovative and relevant in their internet banking service offering to secure a convenient and high-quality service offering to customers. One way that retail banks can enhance online banking innovation is through benchmarking and continuous customer research to establish changing customer needs and expectations.

From a theoretical perspective, the study makes three contributions. Firstly, it establishes that there is a positive relationship that exists between perceived usefulness and attitude towards the adoption of internet banking amongst Generation Y customers as hypothesized in the study. Therefore we can argue that the construct perceived usefulness does have an influence on the attitude of internet banking customers in an emerging market context. This finding is

important as it illustrates what constitutes customers' perceived usefulness and how it affects attitude. Perceived usefulness can be used by future researchers to study what influence usefulness has on the customer retention and customer loyalty of the Generation Y or Generation Z banking segment.

Secondly, the study establishes that there is a positive relationship that exists between perceived web-based privacy and attitude towards the adoption of internet banking amongst Generation Y customers. The study provides an improved understanding of the kind of influence that the perceived web-based privacy construct has on the attitude of the customers. The study proposes a model that clarifies how perceived web-based privacy has a direct influence on customer attitude with the latter influencing behavioral intentions. Lastly, the study establishes that there is a positive relationship that exists between perceived usefulness and the behavioral intentions of customers towards the adoption of internet banking. It can therefore be argued that the construct perceived usefulness does have a direct influence on the behavioral intention of customers in an emerging African market context such as South Africa, as hypothesized in the study.

## **6. MANAGERIAL IMPLICATIONS**

### **6.1 Guidelines to enhance perceived usefulness towards the adoption of internet banking**

It is important for internet banking service providers to ensure a quality online service to its banking customers. Customers must be convinced that it would be to their benefit to conduct internet banking transactions and that such a service will bring convenience and save time. In order for internet banking service providers to achieve this, they need to ensure that they have all the necessary knowledge required to gain insight on how they can enhance the usefulness of internet banking to assist customers in performing their daily tasks at home or work. Retail banks in emerging economies should provide customers with the option of linking their personal accounts on separate devices such as cell phones, tablets and desktop. This will provide customers with the opportunity of accessing their bank accounts using multiple devices with the use of a password. Secondly, internet banking service providers should ensure that customers are aware of all the benefits of using internet banking such as saving time and bank charges.

## **6.2 Guidelines to enhance perceived web-based privacy towards the adoption of internet banking**

Internet banking service providers should educate customers on privacy restrictions. Customers should be made aware of what information they should and should not share on the internet, and how they can determine whether a situation is a scam or a fraudulent act. Continuous engagement with banking customers regarding their online banking needs, requirements, fears and expectations will ensure a positive attitude from this customer market. Internet banking service providers also need to demonstrate that they are concerned about their customers' privacy issues and they should respond accordingly to these issues. This can be achieved through continuous engagement with their customer base and understanding customers' expectations with regard to web-based privacy.

## **6.3 Guidelines to enhance attitude towards the adoption of internet banking**

Internet banking service providers should convince customers that it would be to their benefit to conduct online transactions, since the value that they receive using internet banking is greater than the value provided when using a banking branch. Internet banking service providers also need to influence customers in believing that the quality of internet banking is superior and unique, and that it would be very difficult for customers to find a service that would be a substitute for internet banking. Internet banking service providers should therefore conduct research and gain more insight on what customers perceive as value and desirable when it comes to internet banking. This can be achieved through qualitative interviews such as in-depth interviews and focus group discussions to obtain a greater understanding of customer preferences and to identify factors of service quality and service engagement that are unique and critical for customers. It remains imperative for retail banks to convince customers that they have their best interest at heart through the offering of services such as internet banking by securing convenience, online information protection and educational guidance on the benefits and risks of using online banking services.

## **6.4 Guidelines to enhance behavioral intention towards the adoption of internet banking**

Banks need to develop a greater understanding on what customers perceive as value in a B2C relationship. Value depends on a number of factors such as rates, price and costs associated with a certain activity. From a cost perspective, internet banking service providers clearly need to communicate the added benefits of using internet banking services. Customers should be made aware that internet banking will save them bank charges, provide them with convenience and will improve their access to financial banking activities, since they can

access such activities from a location or a platform of their choice. Banks should make customers aware that leaving internet banking in exchange for other forms of banking might prove to be costly, timely and less convenient.

## **7. LIMITATIONS AND FUTURE DIRECTIONS**

The research findings are based on the responses obtained from a study that was done in the Gauteng Province of South Africa, and the results cannot be generalized to other geographical regions in the country or the world. Future studies can explore a larger sample drawn from the different provinces of the country to make a generalization from the results obtained. The study conducted only identifies four factors that affect the adoption of internet banking services. There are many other factors that influence the adoption of internet banking that are not considered in the study.

## **8. CONCLUSION**

In order for retail banks to see return on the investments that they have made in technology upgrades to provide internet banking, they need to have a clear understanding of the factors that drive the adoption of internet banking services amongst Generation Y customers. Perceived web-based privacy is one of the strongest determinants of the adoption of internet banking amongst Generation Y customers. The study recommends that retail banks pay close attention to this concern and implement strategies that will decrease the level of web-based privacy concerns. This will lead to an increase in the adoption of internet banking services amongst Generation Y customers in South Africa, as an emerging African market.

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