

A Discriminant Analysis of Electronic Banking in Nigeria

Titus Chukwuemezie Okeke and Dennis Chukwunaedum Amobi

Department of Marketing,
Nnamdi Azikiwe University, Awka, Nigeria.
Department of Public Administration
Nnamdi Azikiwe University, Awka, Nigeria.

Corresponding Author: Titus Chukwuemezie Okeke

Abstract

Advances in information and communication technology and their wide application in banking led to the development of alternative distribution channels/methods for banking services like ATMs, telephone and online banking among others. The success of this new distribution channel for banking products and services depends on their use by the Nigerian retail banking customers. The purpose of this study is to employ discriminant analysis to classify retail bank customers on the basis of users and non-users; and to identify which variables that contribute to the classification. The study also sought to find out whether users and non-users of e-banking differ in opinion with respect to the variables that define e-banking usage. The sample size for the study is 1100. Quota sampling procedure was employed in selecting actual respondents as well as states and towns studied. The variables identified have multidimensional factors and were measured using five-point Likert scale. The findings are that factors like service quality, security, perceived risk, user input and individual factors of awareness, lifestyle, access to computer and knowledge of internet are significant in classifying customers on the basis of users and non-users of e-banking services. The study is a contribution to knowledge and has practical/managerial implications for banks and regulatory authorities as the rapid increase in the number of automated delivery channels and customers' preference to use them because of multifaceted attributes are putting pressure on banks to respond aggressively toward meeting customers' needs. Another implication of the study is that government and policy makers need to address the infrastructure deficit mainly ICT infrastructure that will drive e-banking. The study is significant as it has made a contribution to knowledge and is a springboard for research. Each of the variables used in the study need to be investigated separately for further insight. The variables used in the study including the demographics: like income, occupation and education are dynamic and thus have implications for further study.

Keywords: technology, high-tech banking, consumer, banking services, ATMs, electronic funds transfer, telephone banking, internet smartcard, debit/credit cards, e-payments.

INTRODUCTION

Electronic banking can be described as the use of magnetically encoded plastic cards at terminals outside a regular bank location for cashing, deposits and other money transfer functions. This is synonymous with electronic banking products and services that came into being as a result of the emergence of electronic banking services or electronic money. Electronic money refers basically to a payment and settlement system in which payment and settlement are effected through the use of plastic money cards rather than through the exchange of coins, or paper money and cheques (Okafor 2006). According to the Basel Committee Report on Banking Supervision (1998, 3), 'e-banking refers to the provision of retail and small value banking products and services through electronic channels. Such products and services can include deposit-taking, lending, account management, the provision of financial advice, electronic bill payment, and the provision of other electronic payment

products and services. The e-banking services are referred to as "exotic" financial offerings, which include internet/e-banking, GSM/Mobile banking, electronic money, credit/debit cards, virtual recharge for private telephone operators (PTO) e-cash by Digicash, EFT, SWIFT and ATMs (Ovia 2005). All were brought about by the advent of Information and Communication Technology (ICT) and ubiquitous presence in all the sectors that is reshaping the way personal and corporate relations are conducted.

Arguably, the globalisation process has quickened the ways banking business is conducted, resulting to the development of electronic banking services. Among other forms, electronic banking services include the Electronic Financial Analysis and Surveillance System (e-FASS), the various versions of the Automated Teller Machines (ATMs), electronic funds transfer, telephone banking, internet banking, smartcard, and debit/credit cards. This offers customers the advantage of transacting banking

services at any time of the day and saves the time of queuing at a bank counter. It also exposes customers to risk. According to Olasanmi (2010) the increase in the use of the ICT facilities such as computers and internet in the perpetuation of criminal activities like spamming, credit card frauds, phishing, identity theft, denial-of-services, and many others lend credence to the view that ICT is contributing to crime in the banking sector. Without doubt, the success of this new distribution channel for banking products and services depends on their preference and use by the Nigerian retail banking public. However, the current rate of adoption is still far from expected as evidenced from observations and preliminary inquiry. To improve the delivery of efficient and effective system by banks, it is important to study the reasons why bank customers decide to use or not to use electronic banking platforms. The Nigeria financial system has invested substantially in electronic payment channels like ATMs, POS, branded debit/credit and electronic purse card. They have also overhauled the banking applications, moving to new and better software that adapts to modern high technology banking standards and Nigerian customer are adopting these services somehow. The objective of this study to employ discriminant analysis to classify retail bank customers on the basis of users and non-users; and to identify which variables that contributes to the classification. The study also sought to find out whether users and non-users of e-banking differ in opinion with respect to the variables that define e-banking usage.

The variables that consumers use to evaluate service alternatives come in many forms. The number of variables involved, as well as how they influence consumers evaluation of alternatives varies according to the type of situation (Loudon & Bitta, 1993). Literature on e-banking usage (Safeena, Abdullah & Date 2010; Gerrard & Cunningham. 2003; Khan 2010; Sathye. 1999; Polatoglu & Ekin, 2001; Liao & Cheung 2002; and Suganthi & Balachandran 2001; Kolodinsky, Hogarth & Hilgert 2004; Gan et. al 2005; Muniruddeen 2007; Adesina & Ayo 2010; Ayo, Adewoye & Oni 2010; Safeena, Date & Kammani 2011; and Okeke 2013) suggest the following variables were employed in most of the empirical works on e-banking: service quality factors, individual factors, price, perceived risk factors, service product factors, and user input factors as well as demographic variables. The studies employed different methods of statistical analysis but none employed discriminant analysis. Given the possibility of hacking, tampering and information leakage over public network, the above variables and factors were introduced to reveal how respondents perceive technology based banking measures.

Based on the above, the following hypotheses are formulated:

Hypothesis 1: Higher level of performance on the service quality dimensions influence customers' use of e-banking services.

Hypothesis 2: Lower Perception of risks influence consumers' use of e-banking services.

Hypothesis 3: A lower price paid by consumers' will positively impact on consumers' use of e-banking services.

Hypothesis 4: Well developed service products characteristics positively impact consumers' use of e-banking services

Hypothesis 5: Higher user input factors like control, enjoyable operations and, intention positively influence consumers' use of e-banking services.

Hypothesis 6: Individual factors: customer resources, lifestyle, and awareness positively influence consumers' use of e-banking services

Hypothesis 7: Expected security of operations is a significant attribute and influences consumers' use of e-banking services.

METHODOLOGY

Quantitative research design and survey method were used for the study, which is consistent with similar studies. This approach is directly related to descriptive and causal research and success in collecting primary data depends largely on correct designing and administration of the survey instrument which in this research is the questionnaire. The sample size for this study is **1100** respondents drawn from the Nigerian banking public and the sampling procedure is the quota sampling method. The choice of this sampling method is to allow for the selection of respondents from the different gender, income group, educational background and age in the sample. Quota sampling was chosen in line with the objectives of this research and its greatest advantage is to ensure that the sample generated contains specific subgroups or respondents of diverse groups. Again convenience/judgement was employed in choosing a state from each geo-political zones of Nigeria as well as in choosing a town from each state.

Thus the states and towns selected were based on where the researcher had lived or visited or have a close friend or colleague who understands the importance of the project to assist in the questionnaire distribution. The variables and their dimensions as well as the number of items/questions for each are: service quality (SERVQUAL), seven items; security five items; and perceived risk factors has eight items. Others are user input factors six items; price factor has three items; service product characteristics variable has six items; and individual factors with nine items. All these factors and their dimensions/items using five point likert scales: *strongly agree to agree, to undecided to disagree and strongly disagree*. Seven demographic variables

gender, income, marital status, occupation, age, education and ethnic background were also included in the questionnaire. Respondents were asked to choose from a list of Hi-Tech banking services they have used or are using. They were also asked to indicate the frequency with which they use the Hi-Tech banking services. This is the dependent variable and is measured using frequency-type question: *very often, often, occasionally, rarely and never*; and was categorised into two to apply discriminant analysis. Finally, the questions were pre-coded for ease of analysis. Pearson correlation was used to measure convergent validity (Liao & Cheung 2002). This is necessary to ensure the validity of individual variables in the questionnaire. Cronbach Alpha reliability analysis was applied to test internal consistency with respect to the multidimensional attributes (cf: Liao & Cheung 2002; and Khan 2010).

Also, the Durbin Watson coefficient was computed to check whether there is autocorrelation between variables. This is to ensure that the variables used in the study are free from multicollinearity and to preclude the need to eliminate any variable. This was conducted check whether there are redundant variables that must be removed before the final analysis. Factor Analysis was employed to converge the data. Discriminant analysis is a technique for analysing data when the criterion or dependent variable is categorical and the predictor or independent variables are intervals (Hair, Bush & Ortinau 2006). The data analysis was done with the aid of **IBM SPSS Statistics 20** software.

RESULTS

A total of 594 copies of questionnaire were returned and analysed giving a response rate of 54%. Of this 60.8% are males while 39.2% are females. 54.5% are singles, 43.1% are married, 1.0%: separated while 1.3%: divorced. Also, 57.3% fall within the middle income bracket of ₦15,000.00 – ₦451,000.00, 31.1% have monthly income below ₦15,000.00 while the remaining 10.6% have monthly income of ₦451,000.00 and above. In terms of the age bracket, 71.5% are in 12 – 35 years, 25.5% are within the 36 – 55 years while 3.0% are 56 years and above. 41.4% are students/apprentice, 5.6% do clerical work, 12.2% are in trading, 34.8% are in technical/administrative jobs, while 6.0% are casual workers. Also, 58.4% are Igbo, 12.3% are of Hausa/Fulani extraction, 11.7% are Yoruba, 2.0% are Efik while 15.6% are from other ethnic nationalities. On education 0.9% have primary/non formal education, 16.2% secondary, 71.7% have HND/BSc while 11.1% have post graduate degrees. The mean and standard deviation of the demographic variables are: gender: 1.39 and 0.488; marital status: 1.49 and 0.592; monthly income: 1.81 and 0.624; age: 1.32 and 0.539; occupation: 2.59 and 1.460; ethnicity: 2.04 and 1.478; and education: 2.93 and 0.562 respectively.

ATM/debit/credit cards is the most preferred with a total of 541 responses, telephone/GSM banking has 140 responses, master/visa cards has 72, internet banking has 58, while 72 responses indicated others like western union.

This question was based on multiple response analysis. Pearson correlation was used to test correlation between variables which show strong positive correlation between most of the variables; as the correlations are significant at .01, and .05 which are within acceptable confidence level. This reflects respondents general agreement with the variables included in the study. Durbin Watson (DW) statistics was used to test autocorrelation and the value for all variables is 1.531 which falls within limits and exhibit no problem of auto correlation. Cronbach Alpha statistics was used to test the reliability of the variables and the individual items

Correlations							
	ServQual	Security	PRF	UIF	Price	SPC	IF
ServQual	1						
Security	.973**	1					
PRF	.986**	.988**	1				
UIF	.985**	.930*	.969**	1			
Price	.903*	.957*	.921*	.826	1		
SPC	.996**	.967**	.989**	.992**	.874	1	
IF	.935*	.936*	.909*	.869	.963**	.899*	1

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

* Correlation is significant at the 0.05 level (2-tailed).

The Cronbach Alpha statistics for all items, 44 in number was .937. For the individual variables the Cronbach Alpha for service quality: .816; security: .723; perceived risk: .767; user input: .834; price: .097; service product: .689; and individual factor: .762. Thus, all the variables fall within the acceptable limit except price with a very low alpha statistics. This means that the variable price, need further preliminary analysis and hence factor analysis was employed to cross check the individual items in that variable. The analysis indicates that item 3 has a negative value of -.516 and was removed. After this reliability analysis was conducted again on the price variable and the result indicate Cronbach Alpha statistic value of .622 which is acceptable. All the variables are above the .6 benchmark and are found to be within the limits for further analysis (cf: SPSS 2003; Khan 2010).

Discriminant analysis is an SPSS programme that gives a lot of output (appendix). To interpret the discriminant function we look at the group statistics. For the seven variables, users of e-banking have higher mean and lower standard deviation than non-users. This implies that perceptions of e-banking are significantly more favourable for the users than non-users. To find out which of the independent variables help to predict group membership we look at the Tests of Equality of Group Means. Six of the

variables are significant at .000 while one is significant at .052. This means that on univariate basis, the seven variables differ between users and non-users. Wilk's Lambda is .845 and the Chi-square of 99.283 is significant at .000. This means that the discriminant analysis is dependable. The classification results show that 65.7% of original grouped cases are correctly classified. Assuming maximum chance criterion, that is if all were to be assigned to the majority group (328/594) equals .5522 or 55.22%. Again if we assume proportional chance criterion $((266/594)^2 + (328/594)^2)$ is .5054 or 50.54%. Both are lower than the 65.7% of original grouped cases correctly classified. This further shows that the Discriminant Analysis is reliable. Since the groups are not equal, the cut-off is determined thus $(266.385 + 328 - .475)/594$ which gives a value of approximately .09. From multivariate/discriminant analysis perspective, the information in the structure matrix show that all the seven variables score above the centroid/cut-off hence the seven hypotheses formulated for the study are all validated.

DISCUSSION

This study was motivated by the need to employ discriminant analysis to classify retail bank customers on the basis of users and non-users; and to identify which variables that contributes to the classification. Analysis of the data show that the seven variables: service quality, security of operations, perceived risk, user's input factors, price, service product characteristics, and individual factors variables significantly to predict group membership; and classify customers on the basis of users and non-users of e-banking. Analyses of the literature showed that these seven variables and their dimensions were employed in most of the empirical studies and are relevant to consumers' e-banking decisions. This study found that service quality dimensions contribute significantly in influencing use of e-banking services as well as in classifying e-banking customers on the basis of users and non-users; and agrees with prior researches which show that service quality dimensions are all significant in shaping customers attitude in the use of e-banking products (Khan 2010; Gan et. al 2006, 2005). The literature on consumer behaviour generally places emphasis on risk as important dimension of the consumer decisions. Thus risk and need as two dimensions of consumer choice have been the focus of attention. In an aggregative analysis Gan et al (2006) found a negative relationship between perceived risk factors and customers use of electronic banking. But Safeena, Abdullah & Date (2010) found a positive relationship. This study established that perceived risk is significant in influencing consumer of technology based banking; as it is a significant factor in deciding to or not to use e-banking.

Previous studies have identified that user input factors are a function of control, enjoyment and intention to use (Gan et. al. 2006). The intention to use is described as the level of resistance to change, which is associated with consumers' intention to change and adopt high technology banking services. This is in line with the theory of change and relates to the extent to which people are receptive and open to a new idea (Rogers, 1995). This study shows user input dimensions influence use of e-banking services and agrees with Gan et al 2005, 2006 that user input dimensions is very significant in predicating electronic banking usage. Price factors suggest that perceived relative economic advantages will motivate consumers to use electronic banking. Gan et al (2006, 2005) show that price factors have positive impact on electronic banking adoption and usage; while Suganthi & Balachandran (2001) maintain that cost of computers and internet access are among the pertinent factors that seem to affect the adoption of internet banking. This study shows that price is a factor in e-banking usage. The service product characteristics of electronic banking including: consumers' perception of a standard and consistent service, the time saving feature of electronic banking, and the absence of personal interaction, have been empirically found in this study to influence consumers' use of electronic banking. The electronic banking literature supports that individual factors such as knowledge (Sathye. 1999); consumer resources, such as money and information reception and processing capabilities (Gerrard & Cunningham. 2003) and lifestyle (Polatoglu & Ekin, 2001) impact on consumers' adoption of electronic banking. This study shows that the Nigerian banking public are more aware of ATM services than other e-banking services as over 60% of the respondents indicated. The level of awareness with other such services like GSM/phone is still very low. This agrees with CBN Annual Report (2012) that ATM account for 90% of electronic payments in Nigeria. The reason for this is that some of these products like Telephone banking are still at their developmental stage. The low rate of internet banking can be explained by the low internet literacy/penetration rate in the country. This study shows that all these are significant in influencing consumer use of e-banking. Use of e-banking is linked with security as established in this study and this agrees with Khan (2010) that electronic banking usage is linked with user's perception of security.

The rapid increase in number of automated delivery channels and customers' preference to use them because of multifaceted attributes are placing pressure on banks to respond aggressively to meet the customers' needs. This study provides necessary input to bank management to increase customers' preference through improving service quality; lowering risk; enhancing security of operations; and well developed service product characteristics. This

aspect should be augmented and integrated with other aspects of the service quality of banks for satisfaction of customers. The results of this study show that ATM usage is highest among e-banking customers. Banks should develop strategies to motivate non-users through awareness, education, extending personalized services, and demonstrations. This is more so as the study has shown that consumer awareness is highest among ATM users but low among others e-payment services. Quick response to customers' needs and queries about the Hi-tech related services are important to improve the service standards of e-banking. This would facilitate customers to participate in improvement of service quality, learn and perform, and have a pleasant experience through two-way communication. Bank should make a commitment to redress service failures

This research focused on a discriminant analysis of e-banking services of Nigerian banks. Seven variables were used and these are: security of operations, quality of service, perceived risk, users' input factors, service product characteristics, and price. The conclusions of the study relate to a specific time in present. Additional study should be done on longitudinal basis to address the interactions and technological dimensions of the e-banking services in relation to consumers. Branding was not included in the research model and the effect of this on consumer could be explored. Price is an essential aspect that affects the customers' use of technology based banking. The prevailing economic conditions in Nigerian have made the consumers more prices sensitive. This aspect needs further exploration as essential dimension affecting consumer use of e-banking services.

CONCLUSION

This research has presented an insight into the factors/variables that classify bank customers on the basis of usage; and applying discriminant analysis this study has established the influence of security of operations, service quality, perceived risk, user input factors, service product characteristics, and price in enhancing customer use of electronic services of Nigerian banks. Security was selected as an additional variable in the consumer decision process model and this was informed by the high incidence of ATM and related fraud within the e-banking segment. The results of the statistical analysis show that the seven variables are significant in influencing consumer use of e-banking. The results of the study show that higher levels of performance on the quality of service dimensions of assurance, reliability and responsiveness influence consumer use of e-banking services. Usage of electronic banking is related to low perception of risk, low price paid, and higher user input factors. Also individual factors of consumer resource, knowledge and awareness; well-developed service product characteristics; and

expected security of operations influence consumer involvement with electronic based basis of banks.

LIMITATIONS OF THE STUDY

This study has a number of limitations. First, the study is limited by the sample and sampling method used. Non-statistical method of sample selection was employed to arrive at a sample size of 1100 respondents; while quota sampling procedure was used in selecting the actual respondents. Second, the study is limited by the instrument. The major instrument for primary data collection is the questionnaire. Interview could be employed to gain more insight. Other limitations of the study are infrastructural inadequacies affecting the entire nation. Nigeria like many other developing countries has inadequate power and inefficient telecommunication services as well as poor satellite communications that limit the use of internet for extensive study of this nature. Other limitations include the issues insecurity in many parts of the country which contributed to non-response from many of the respondents.

REFERENCES

- Adesina, A.A. and Ayo, C.K. (2010). "An empirical investigation of the level of users' acceptance of e-banking in Nigeria." *Journal of Internet Banking and commerce (JIBC)*. Vol. 15, No.1, pp. 1-13
- Ayo, CK, Adewoye, JO, and Oni, AA (2010). "The state of e-banking implementation in Nigeria: apost-consolidation review". *Journal of Emerging Trends in Economics and Management Sciences*.1 (1). Scholar link Research Institute Journals. pp. 37-45.
- Basel Committee Report on Banking Supervision. (1998). Risk management for electronic banking and electronic money activities, Switzerland: Bank of International Settlements
- Central Bank of Nigeria (CBN).(2012) Annual Report and statement of Accounts.
- Gan, C, Limsombunchai, V, Clemes, M. and Weng, A (2005) "Consumer choice prediction: artificial neural networks versus logistic models". *Journal of Social Sciences I* (4): 211-219.
- Gan C; Clemes, M; Limsombunchai V; & Weng A (2006). A Logit Analysis of Electronic Banking in New Zealand. Discussion paper No. 108.
- Gerrard, P. and Cunningham, J.B. (2003). "The diffusion of internet banking among Singapore consumers". *International Journal of Bank Marketing*. 21: 16-28.
- Hair, J.F; Bush, R.P. and Ortinau, D.J. (2006). *Marketing Research*. McGraw Hill/Irwin, New York.

Khan, M.A (2010).“An Empirical study of automated teller machine service quality and customer satisfaction in Pakistani Banks”.European Journal of Social Sciences – vol. 13,No.3,pp 333-344

Kolodinsky J.M., Hogarth, J.M.; andHilgert, M.A. (2004). “The adoption of electronic banking technologies by US consumers”, The International Journal of Bank Marketing (22: 4/5), 2004, pp. 238-359.

Liao, Z: and Cheung, M.T. (2002). “Internet based e-banking and Consumer Attitudes: An Empirical Study. Information & Management 39: pp. 283-295.

Loudon, D. L., andBitta, A. J. D. (1993), Consumer Behaviour: Concepts and Applications. 4th Edition, New York, McGraw-Hill Irwin.,

Muniruddeen L. (2007). “An examination of individual’s perceived security and privacy of the internet in Malaysia and the influence of this on their intention to use e-commerce: using an extension of the technology acceptance model”. Journal of Internet Banking and Commerce, vol. 12, no.3, pp. 1-19.

Okafor, F.O. (2006). A world of financing without money.University of Nigeria Occasional Paper No. 1.

Okeke, T.C. (2013). “Perceived risk/security and consumer involvement with electronic payments in Nigeria: a Discriminant Analysis.” IOSRJournal of Business and Management vol. 14.Issue 6.Pp 57-67. Assessed from www.iosrjournals.org.Olasanmi, O.O. (2010). “Computer crimes and counter measures in the Nigerian banking sector”. Journal of Internet Banking and commerce vol. 15, No.1, pp.1-10.

Ovia, J. (2005), “Enhancing the efficiency of the Nigerian payments system” Bullion Vol. 29, No. 1. January/ March. Abuja Central Bank of Nigeria, pp. 8-20.

Polatoglu, V.N. andEkin, S. (2001). An empirical investigation of the Turkish consumers’ acceptance of internet banking services.International.Journal Bank Marketing. 19: pp156-165.

Rogers, E.M. (1995). The Diffusion of Innovation.4th Edition. New York, NY: The Free Press.

Safeena, R. Abdullah; and Date, H. (2010). “Consumer perspectives on e-business value: case study on internet banking”. Journal of Internet Banking and commerce vol. 15,NO. 1. Assessed from <http://www.arraydev.com/commerce/jibc/>.

Safeena, R., Date, H. and Kammani, A. (2011). “Internet banking adoption in an emerging economy: Indian customers’ perspective.” International Arab Journal of e-Technology Vol. 2.No.1.

Sathye, M. (1999) “Adoption of internet banking by Australian consumers: An empirical investigation”, The International Journal of Bank Marketing. 17(7), pp. 324-334.

Statistical Package for Social Sciences (SPSS) (2003). Get the best out of Your Survey. Online Document.

Suganthi, B; &Balachandran, G. (2001). “Internet banking patronage: an empirical investigation of Malaysia” Journal of Internet Banking and commerce Vol. 6, No. 10

Appendix: Discriminant Analysis

Usage		Group Statistics		Valid N (listwise)	
		Mean	Std. Deviation	Unweighted	Weighted
Non-users	Service Quality	-.2959522	.95150141	266	266.000
	Security	-.2740618	1.07670387	266	266.000
	Perceived Risk	-.1798643	.88303333	266	266.000
	User Input	-.4529014	1.15559445	266	266.000
	Price	-.0398092	.90605146	266	266.000
	SPC	-.2192655	.89153581	266	266.000
Users	IF	-.3892514	1.16265226	266	266.000
	Service Quality	.2379119	.93980617	328	328.000
	Security	.2100846	.82693085	328	328.000
	Perceived Risk	.1639249	.93816500	328	328.000
	User Input	.2931034	.72247808	328	328.000
	Price	.1199722	1.05737052	328	328.000
	SPC	.1579007	1.00297173	328	328.000
	IF	.2981468	.72742622	328	328.000
	Service Quality	-.0011585	.98093128	594	594.000
	Security	-.0067217	.97632031	594	594.000
Total	Perceived Risk	.0099721	.92901837	594	594.000
	User Input	-.0409661	1.01116000	594	594.000
	Price	.0484202	.99483724	594	594.000
	SPC	-.0109986	.97218707	594	594.000
	IF	-.0096780	1.00643158	594	594.000

Tests of Equality of Group Means

	Wilks' Lambda	F	df1	df2	Sig.
Service Quality	.927	46.872	1	592	.000

Security	.939	38.397	1	592	.000
Perceived Risk	.966	20.785	1	592	.000
User Input	.865	92.252	1	592	.000
Price	.994	3.807	1	592	.052
SPC	.963	22.925	1	592	.000
IF	.884	77.341	1	592	.000

Analysis 1**Summary of Canonical Discriminant Functions****Eigenvalues**

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.184 ^a	100.0	100.0	.394

a. First 1 canonical discriminant functions were used in the analysis.

Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.845	99.283	7	.000

Standardized Canonical Discriminant Function Coefficients

	Function
	1
Service Quality	.252
Security	-.157
Perceived Risk	.116
User Input	.612
Price	.042
SPC	-.063
IF	.398

Structure Matrix

	Function
	1
User Input	.921
IF	.843
Service Quality	.656
Security	.594
SPC	.459
Perceived Risk	.437
Price	.187

Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions

Variables ordered by absolute size of correlation within function.

Functions at Group Centroids

	Function
	1
Non-users	-.475
Users	.385

Unstandardized canonical discriminant functions evaluated at group means

Classification Statistics**Prior Probabilities for Groups**

	Prior	Cases Used in Analysis	
		Unweighted	Weighted
Non-users	.448	266	266.000
Users	.552	328	328.000
Total	1.000	594	594.000

Classification Results^a

	Usage	Predicted Group Membership		Total
		Non-users	Users	
Original	Count			
	Non-users	118	148	266
	Users	56	272	328
	%			
	Non-users	44.4	55.6	100.0
	Users	17.1	82.9	100.0

a. 65.7% of original grouped cases correctly classified.