



Munich Personal RePEc Archive

Factors affecting internet banking adoption among internal and external customers: a case of Pakistan

Raza, Syed Ali and Hanif, Nida

Iqra University Abid Town, Block-2 Gulshan-e-Iqbal, Karachi,
Pakistan

19 December 2011

Online at <https://mpra.ub.uni-muenchen.de/39314/>
MPRA Paper No. 39314, posted 08 Jun 2012 00:27 UTC

**Factors Affecting Internet Banking Adoption among Internal and External
Customers: A Case of Pakistan**

First Author

Syed Ali Raza
Lecturer,
IQRA University,
Karachi-75300, Pakistan
Email: syed_aliraza@hotmail.com
Tel: +92-333-344-8467
(Corresponding Author)

Second Author

Nida Hanif
Business Graduate,
IQRA University,
Karachi-75300, Pakistan
Email: nida_hanif25@yahoo.com

(Preliminary Draft)

Abstract

This study investigates the determinants which attract the customers to adopt internet banking in Pakistan by employing internal and external customers, on the sample size of 210 for internal and 151 for external respondents through using the survey research instrument questionnaire. The confirmatory factor analysis with multiple regressions technique has been applied. The result of regression analysis shows that Perceived Usefulness (PU), Information of Internet Banking (INF), Perceived Risk (PR), Security and Privacy (SP) shows more influence to increase the intention of external customers to adopt internet banking services while Government Support (GS) provide more influence for the internal customers in adoption of internet banking services. This study proves that external customers can be more emphasize, if they believe convenient in adopting the services. It is recommended that, bank should take some consideration to apply internet banking by delivering the information in an easiest way, provide more usefulness and benefits and also minimize the fraud as providing more security and privacy. This will helps the bank to increase their profit by reducing its cost, time saving and retain more potential users.

Keywords: E-banking, Internet Banking (IB), TAM, Factor analysis, Multiple Regression.

Introduction

Banking is the only sector in which every deals they performed or activities done; that are beneficial for its own development and for the country economy as well. Nowadays, the revolution of information technology has influenced almost in every part of life, among them one is the banking sector. Today introduction of electronic banking has more revolutionized and contribution of technology is considered to be the main reason for the organization's success and for their core competency.

Electronic banking or E-commerce¹ is the application of information technology (I.T) which helps to facilitate the information and services over public standards based networks. There are different forms² include; Online (Internet banking), Mobile banking, Telephone banking and PC. As knowing the facts that, E-banking is the wider part and internet banking is the specific area under the E-banking services.

As understanding word Internet banking³, through which customers can utilize different kind of facilities and services and this can be done through WWW (World Wide Web). As internet banking is one of the key route to increase the financial transactions market share and make long term relationship with the customer's. The emergence Internet Banking was initiated first in the 80th century but its growth across the globe took place in the 90th century and Europe has become a leader in the usage of Internet banking⁴

Internet banking offers many services which are beneficial for the customers after getting the IB facilities which includes; carry out information, Online payments, balance inquiry, Utility bills Payment, Ticket booking, Shopping through cards, Prepaid mobile recharge, Investment services, Market watch, Online transfer of fund, request check book and Credit\ Debit of

¹ PricewaterhouseCoopers (PWC), 1999, (Nazir et al)

² Prof. Mohammad Amin Khalid MBA(IBA), (2010)

³ Kesseven et al, P. 104, (2008)

⁴ Schneider, (2001)

accounts through Internet banking etc⁵, and allow customers to perform banking transactions anytime at 24/7. As well as Internet banking also eliminates unnecessary waste of money that an organization incurs in a form of human resources and office supplies.

In Pakistan, most of the banks introduce internet banking and turning towards more competitiveness by upgrading their technologies and services. This system can be adopted by most of the international as well as local banks in Pakistan because of associated vital benefits like are time and cost effectiveness⁶. In the year of 2006, many commercial banks were opening online branches in the second quarter of the fiscal year. Now, total existing bank branches are 9,483 out of which 7,036 bank branches is now offering the real time online banking (RTOB) services and through internet Rs 44.75 billion were transacted⁷.

Most of the studies have been conducted to analyze the determinants which influence to adopt internet banking on the basis of customer's (end users) perspective independently. But the studies have not been analyzed separately in a way by considering both the views of internal customers (Bank employee) and external customers towards the acceptance of Internet banking. Because internal customers have more awareness about transactions, information and the services offered by the banks, that external customers are unaware. So, the objective of this study is conducted individually for identifying the main factors which influence the internal and external customers to adopt internet banking.

Literature Review

In this section after summarizing the theoretical background, empirical studies are reviewed.

⁵ Daniel, (1999); Mols, (1998); Sathye, (1999)

⁶ Polatoglu and Ekin, (2001); Black et al., (2002); Howcroft et al., (2001); Khan S, (2007-009).

⁷ SBP, (2011)

Theoretical Background

Since its introduction, internet banking gain much importance and priority as well as highlight special attention towards the customers and employees that increases the usage of these services. Researchers have applied numerous theories to identify potential factors which influence the people to adopt internet banking (IB). Some of the theories include: the technology acceptance model (TAM), the theory of reasoned action (TRA), the theory of Planned Behavior, the theory of Innovation Diffusion and User Gratification.

The Technology acceptance model (TAM) has been adapted from the TRA⁸. TAM is the multivariable model that predicts the user's intention on the basis of their perception, which includes five main conception; perceived usefulness and ease of use, intention to use, actual use and attitude to use internet banking. The research model can be hypothesize on consumer behavior factors which are: service quality, relative advantage, convenience, compatibility, complexity, trialability, privacy, trust, security, attitude and belief, risks, habit, familiarity, lack of awareness, adaptability, consumer, organization, confidence, technology and computer, channels characteristics. These all factors can directly influence the customers to adopt the services.

Empirical Studies

Akhlaq & Shah, (2011) investigate and find out the complexities or factors that resist the customers to adopt internet banking in Pakistan. For this the traditional innovation diffusion model (IDT) has to be used and the selected survey sample are n=45. The selected test is chi-square test. Include variables are Easy access to computers, familiarity with the technologies, concerns for download speed, unfriendly website design, unreliable website services, misusing of information, security, fear of government on tracking transaction, people gaining easy access and training needs and as well as awareness campaigns, in which six are found significant. The

⁸ Ajzen and Fishbein, 1975

analysis result show 67% of the proposed complexities due to familiarity with the internet technology, download speed, website design unfriendly, people gaining easy Access, Misusing of information, security, Fear of Government tracking transactions, hinder the users in accepting and adopting internet banking technology in Pakistan. It is recommended that bank should focus on the internet banking usage among its customers because their costs associates are much lower than traditional system.

Amini et al, (2011) investigate the determinants of accepting Internet banking (IB) for the customer's of Iran. The sample data for this study is based on 202 questionnaires and is filled by individual Internet banking users. The techniques use for the research was Confirmatory Factor analysis, Pearson correlation and multiple regression analysis. The finding result shows that the perceived usefulness and computer self efficiency are the main factors that influence to accept the Internet banking. Basically this study helps the bank manager to how to use computer, advertising and internet banking which help to learn the customers view.

Eze et al, (2011) inspect those factors that really emphasize the Malaysian customers (young adults) to adopt internet banking services. For the bank, it is not as easy to understand their customers demand in order to convey their services effectively. The framework use for the research is based on six variables of extended technology acceptance model (TAM). The convenience sampling method has to be applied and used the survey questionnaire tool for collecting the data. The selected sample is 310 respondents, out of which 229 respondents have received. The techniques use for this study is factor analysis and the analysis results shows that Perceived ease of use, perceived usefulness, perceived credibility, relative advantage, trialability and self efficiency are more influencing factor to adopt internet banking. This study was really beneficial for development of literature in subject area and for theoretical development in Internet banking in Malaysia.

Nasri, (2011) examine the main factors that influence the people to adopt Internet banking services in Tunisia. For this study theoretical model is applied to examine the most influencing factors. The selected sample data for the research about 253 respondents, in which 95 were users of Internet bank and 158, were non users. The techniques use for the research is Factor analysis and Regression Analysis. The study results shows that Internet banking usage is much persuaded by the factors risk, convenience, security and also prior Internet knowledge. Only one factor does not show any impact which is Information on online banking. Also demographic factors show significantly impact on the behavior to use internet banking (especially occupation and instruction). This study was beneficial for the practitioners, who always work to promote new form of banking in the current competitive market.

Safeena et al, (2011) investigate the customer perspective about Internet banking adoption in an emerging Indian economy by using the convenience sample method for collecting data of the student of educational institutes through questionnaire. The variables of the research are perceived usefulness, perceived risk, consumer acceptance and perceived ease of use. For this research the factor analysis technique has to be used. The result shows that the perceived usefulness, perceived ease of use a perceived risk are the most important factors for the adoption of online banking and also help to make a strategy formulation process. By using a longitudinal study in the future which help to identify the research model in different time periods and make comparisons and thus providing more views into the phenomenon of the adoption of online banking.

Chong et al, (2010) analyze the factors which include perceived usefulness; perceived ease of use, trust and government support shows any affect to adopt online banking services in Vietnam. The total sample of 156 people selected through survey method, in which 66% are the response rate which show the usable sample of 103 and this is measured through correlation as well as multiple regression analysis. According to the fact factors which emphasize to use online

banking service are perceived usefulness, trust and government support these shows a significant impact and perceived ease of use was found insignificant according to technology acceptance model. It suggests the bank to develop new directions as well as good strategies and also improve the privacy and security which helps to develop trust of the website services. Apart of that government play a significant role to increase the adoption of online banking services.

Malhotra & Singh, (2010) investigates the most impacting factors of internet banking service in India; through this exploratory study the researcher examine the present condition of internet banking and some facilities recommended to the Indian banks. The websites survey was conducted of the selected banks which explored during July, 2008, and the selected sample of banks which is operated in India at 31 March, 2007 is of 82 banks. Multiple regression technique has to be applied and the result shows in comparison with public, foreign and private banks offer to provide an extensive range of facilities and services in Internet banking. The more impacting determinants include the size of the bank, financing pattern, bank experience for providing internet services and ownership of the banks.

Ho & Lin, (2010) investigate to measure the services quality of internet banking for developing the multiple item scale. The develop framework of that research which is used by Taiwan internet banking users for its empirical studies as survey targets, and the develop model is based on some factors like electronic service quality and customer perceived service quality. The Factor analysis technique can be used and the result can be handed by refined scale which is identified through the process of factor analysis. The main dimension is five which is customer service, assurance, web design, information provision and preferential treatment and in measurement scale includes seventeen items. The method which is discover through factors, perception of the customers towards E-service quality dimension that's assist to improve the customer's satisfaction, create loyal customers and build customers trust. This paper adapts an e-

service quality model to measure internet banking service and this is more suitable than that of traditional service quality model.

Yaghoubi & Bahmani, (2010) investigate the factors which affect the decision to adopt the Internet Banking services in Isfahan province of Iran. For this, Develop a model which is based on technology acceptance model (TAM) and Theory of Planned Behavior model (TPB). The survey questionnaire has to be designed and distributed in the selected random sample of 500 customers related to the National bank of Iran, out of which the actual sample are collected from 349 respondents. The data can be analyze through Structure Equation Modeling (SEM) and the getting results shows that the intention for using the Internet banking service is strongly affected and influenced by perceived behavioral control and perceived usefulness. This result provides integrate the TAM and TPB model and confirm its robustness towards online banking adoption.

Burcu et al, (2009) investigate that the demographic variables are the most influencing way to identify the target consumers and also classify the usage of consumer perception attributes and check that internet banking is a valuable alternative channel for Turkey. For this study, an empirical research was conducted over the age of 18 and the sample selected is 506, relates having internet users. This paper analyzes the non users in two different clusters and users in three different clusters. The analyzed main factors are five in which trust and security are found significant factors for using the Internet banking services. Through discriminate analysis technique gives hint to the manager for identifying the main users for using the Internet banking services.

Mirza et al, (2009) investigate empirically the internet banking adoption by Iranian Customers. For the data collection the survey questionnaire has to be used which examine the variables includes demographic, behavioral and attitudinal characteristics of user and non users of Mellat bank customers from governmental sectors towards Internet banking. For this factors

analysis and logistic Regression techniques has to be applied and the result shows that there is significant difference between demographic profile and attitudes of users and Non users groups and most of the customer are eager to use Internet banking services and the most famous adopted channels are Branch counter. The main obstacles to adopt Internet banking services are lack of technological knowledge, security concern and awareness. This study provides some of the perceived factors which are found significant to adopt, baseline data for further research and account updated of Iranian customers.

Gounaris & Koritos, (2008) investigate the drivers of internet banking adoption through empirical study by comparing the two widely develop model the technology acceptance model (TAM) and the Diffusion of Innovations (DOI) model that helps to examine the innovation factors which influence the consumer to adopt internet banking, with an underutilized one perceived characteristics of innovation. The web survey was used to get the data from both users and non users of internet banking. For the study use confirmatory factor analysis and then use a logistic regression analysis for assessing the psychometric properties and compare the models ability to predict accurately the consumer adoption of IB services. The finding shows that PCI gives the better results in forecasting the consumer adoption of IB as compare to other TAM and DOI. While the addition of psychographics and consumer demographics in the overall Logit model give further improvement in the results. The characteristics of non-usability innovations are the important factors of consumer adoption.

Singhal & Padhmanabhan, (2008) investigate and identify the major contributing factors with respect to Customer Perception towards Internet Banking. Both Primary and secondary data were used, Different published sources were used to collect the secondary data and Structured questionnaire was suggested to gather the primary data with a sample of 61 respondents. Factor Analysis technique has to be used and its results indicate the major's factors like's security, utility transaction as well as utility request, ticket booking and fund transfer. In total respondent's

data, more than 50% respondents accept that internet banking is more flexible, easily accessible and more convenient system to satisfy our customers.

Methodology

To understand the most emphasizing factors which influence bank customers to adopt Internet banking in Pakistan which can be done by the help of research model and Hypothesis that is;

$$IB = \alpha + \beta_1(Con) + \beta_2(PU) + \beta_3(Inf. IB) + \beta_4(PR) + \beta_5(SP) + \beta_6(GS) + \varepsilon$$

Whereas; IB is Internet Banking Intention, Con is Convenience, PU is Perceived Usefulness, Inf. IB is Information Online banking, GS is Government Support, PR is Perceived Risk, SP is Security and Privacy, e is Error.

H₀₁ = Convenience doesn't show a positive response for adoption of Internet banking

H₀₂ = Perceived Usefulness doesn't show a positive response for adoption of Internet Banking

H₀₃ = Information of Internet banking doesn't show a positive response for adoption of Internet Banking

H₀₄ = Low perceived risk doesn't show a positive response for adoption of Internet Banking

H₀₅ = High Security and Privacy doesn't show a positive response for adoption of Internet Banking

H₀₆ = Government Support doesn't show a positive response for adoption of Internet Banking

For this study, Descriptive plus Correlational research is to be applied as by adopting Quantitative approach, which helps to collect the respondent data. According to this purpose, Survey research instrument; "Questionnaire" was selected to access different outlook of people view, attitude and behavior. The adopted questionnaire involves attributes of the variables based

on prior research and is designed through Likart scale includes (1 to 5). In this study; questions are taken from prior research like Intention to use (Dependent variable)⁹; Convenience¹⁰; Perceived Usefulness¹¹; Information on Internet banking¹²; Perceived risk¹³; Security and Privacy¹⁴ and Government Support¹⁵. The data for this study is based on random sample and the sample size of internal respondent is 210 and 151 for external Respondents. The data can be collected by those people who work in the banks as well as external customers or end users of internet banking service.

Data Analysis

In this study section we analyze the main factors throughout getting the perspective of internal and external bank customers through factor analysis. Factor analysis assists in reduce a large set of data into a smaller number of components that involve some associated variables¹⁶

A confirmatory factor analysis can be performed on the basis of principle component matrix with varimax method. The Kaiser Meyer Olkin value was 0.901 for Internal and 0.899 for External, which is higher than the recommended value of 0.8 which shows, data sampling adequacy is good because it's value is greater than 0.5. The result of Barlett's test of sphericity is significant which support that; the data is appropriate for making factor through correlation matrix¹⁷. The loading factors value which is higher than 0.4 which consider an important and those loading value which is higher than 0.5 that consider practically significant¹⁸ and all the loading results of this study shows significant because the values are higher than 0.5. Chronbach's coefficient alpha (α) was used to measure the internal consistency of the data items.

⁹ Kasheir et al, (2009), Nasri, (2011)

¹⁰ Davis, (1989), Nasri, (2011)

¹¹ Kasheir et al, (2009), Ho & Lin, (2010)

¹² Chau & Ngai, (2010)

¹³ Kasheir et al, (2009), Nasri, (2011)

¹⁴ Ho & Lin, (2010), Nasri, (2011)

¹⁵ Chong et al, (2010)

¹⁶ Pallant, (2005)

¹⁷ Barlett's, (1954)

¹⁸ (Kaiser, 1974)

The alpha result all data items show high consistency and load considerably well on its factor. The factors result of both data can be seen in Table I and II.

Then multiple regression technique was applied on internal and external data after Factor analysis. Because Regression Analysis helps us to examine the relationship exists between the factors for adopting Internet banking. As shown in Table III represent the regression results for internal respondent and Table IV shows the regression results for external respondents.

Factor Analysis

In **Table I** represent the internal factors result that shows a total of 27 items out of original 29 loaded on 6 factors. Under Factor 1 Perceived Ease of Use (PEOU) contains nine items after merging the two variable attributes because of correlation, having 88.8% excellent reliability that measuring the importance of internet banking adoption with a variance of 53.12 percent. Factor 2 Information of Internet banking (INF) contain four items having 89.5% excellent reliability and with variance of 76.17%. Perceived risk (PR) factor loaded five items having 79.1% good reliability with variance of 54.79%. Another three items measuring Government Support (GS) have 68.5% good reliability with variance 61.86 %. While the fifth factor Security and Privacy (S & P) have three items having 74.9% good reliability with variance 66.61% and the six factor include three items Intention to use (INT) having 75.3% good reliability with variance of 66.98% . The total variance explained by the six factors is 64.064%.

<Insert table I here>

In **Table II** represent the External factors result that shows a total of 24 items out of original 29 loaded on 6 factors. Under; Factor 1 Intention with convenience (INT / CON) contains eight items after merging the two variable attributes having 92.3% excellent reliability with a variance of 65.31%. According to the prior research Intention and convenience were considered to be separately but by applying confirmatory factor analysis they merged the two

variables into one¹⁹. Factor 2 Information of Internet banking (INF) contain four items having 93.3% excellent reliability and with variance of 83.44 percent. Perceived Usefulness (PU) factor loaded three items having 79.5% good reliability with variance of 71.43%. Another three items measuring Government Support (GS) have 73% good reliability with variance 65.79%. While the fifth factor Perceived risk (PR) have three items having 84.1 % excellent reliability with variance 76.11% and the six factor include three items Security and Privacy (S & P) having 80.5% excellent reliability with variance of 73.42% . The total variance explained by the six factors is 75.13%.

<Insert table II here>

Regression Analysis

In **Table III** the Internal Regression analysis results show that Perceived ease of use, Information of Internet banking, Perceived Risk, Security and Privacy and Government Support have significant impact to increase their intention because of ($F = 34.657$; $p \text{ value} = 0.00$) and the exists relationship between the variables R^2 is 44.6% which show average relationship that emphasize the people to adopt internet banking. Also the result shows that all factors are positively associated with an adoption through coefficient outcome. These results accept the proposed hypothesis.

<Insert table III here>

Lastly, the **Table IV** shows the External Regression Results which represent all variable are significant to increase the intention by its ($F = 53.674$; $p \text{ value} = 0.00$) and the relationship exists between the variables is moderate due to the value of R^2 is 63.7 which shows moderate relationship. All the factors of the model are associated positively in the adoption of Internet banking. These results accept the proposed hypothesis.

<Insert table IV here>

¹⁹ (Nasri, 2011)

In addition, to the comparison of coefficient regression results prove which variables shows more influence the internal and external customers to adopt internet banking in Pakistan. As Perceived Usefulness (PU) , Information of internet banking (INF), Perceived Risk (PR) and Security and Privacy (SP) coefficient shows more significant impact on the intention of external customer as compare to internal customer coefficients. Apart this Government Support (GS) coefficient shows more significant impact on the intention of internal customers as compare to external customer's coefficient.

Conclusion and Recommendations

In this empirical research study, we analyze to forecast the main impacting factors which influence the bank Customer's include (Internal and External) to adopt Internet Banking (IB) services in Pakistan. Design Questionnaire help to analyze the right perception. As regression analysis result proves that all variables shows positive relationship on the intention but Government support shows more significant impact to increase the intention of internal customers rather than external customers. While Perceived Usefulness (PU) and Information of Internet Banking (INF), Perceived Risk (PR) and Security and Privacy (SP) shows more significant impact to increase the intention of external customers rather than internal customers. As per external result, the customer's intention is just like convenience. If external customers found convenience in adoption of internet banking so the intention is there. If the external customer never found convenience, they never adopt any services. External Customer prefers convenience as intention in adopting Internet banking services.

In view of the above, I recommend the banking sector to instantly focus in this area to start the e-banking /internet banking in their banks and save the time operational cost and also retain more potential customers. Through these results we analyze that bank should consider the point of view of both customers' by analyzing in that area like; easy to understand for the customer as using the services, delivering the information at the front of public in a right

approach, risk and security related issues should be reduced by using a software while launching a new products/services and making new strategies/ investment. By getting all the facts and figures we have no doubt that the use of internet banking in Pakistan will be enlarged and expanded and their importance can be seen by their adoption. As well as every successful bank heavily rely to use the internet banking and manage their business activities by getting benefits through Internet banking in Pakistan.

Acknowledgements

The authors would like to thanks Syed Tehseen Jawaid (Assistant Professor, IQRA University) for his helpful comments and stimulating suggestions.

References:

- Akhlaq, M. A., and A. Shah (2011), 'Internet Banking in Pakistan: Finding Complexities', *Journal of Internet Banking and Commerce (JIBC)*, 16 (1): 1-14.
- Amini, M. T., M. Ahmadinejad and M. J. Azizi (2011), 'Adoption of Internet Banking by Iranian Customer: An Empirical Investigation', *The International Journal of Management Science and Information Technology (IJMSIT)*, 1 (1): 47-64.
- Baloach, Q. B., M. I. Khan and A. Alam (2010), 'Online Banking Services:A Comparative Study of Islamic and Conventional Banks of Pakistan', *Journal of Managerial Sciences*, 4 (1): 68-95.
- Burcu, I., O. Y. Saatcioglu and E. Kuruoglu (2009), 'Who Uses Internet Banking In Turkey and Why?', *European and Mediterranean Conference on Information Systems (EMCIS2009)*: 1-18.
- Chau, V. S., and L. W. Ngai (2010), 'The youth market for internet banking services: perceptions, attitude and behaviour', *Journal of Services Marketing*, 24 (1): 42-60.
- Chong, A. Y.L., K.B. Ooi B. Lin and B.I. Tan (2010), 'Online banking adoption: an empirical analysis', *International Journal of Bank Marketing*, 28 (4): 267-287.
- Davis, F. D. (1989), 'Perceived Usefulness, Perceived Ease Of Use, And User Acceptance of Information Technology', *MIS Quarterly*, 13 (3): 319.
- Eze, U. C., L. H. Yaw J. K. Manyeki and L. C. Har (2011), 'Factors Affecting Internet Banking Adoption among Young Adults: Evidence from Malaysia', *International Conference on Social Science and Humanity, IPEDR*, 5.
- Fishbein, M., and I. Ajzen (1975), 'Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research'.

- Gounaris, S., and C. Koritos (2008), 'Investigating the drivers of internet banking adoption decision; A comparison of three alternative frameworks', *International Journal of Bank Marketing* , 26 (5): 282-304.
- Ho, C. T. B., and W.C. Lin (2010), 'Measuring the service quality of internet banking: scale development and validation', *European Business Review* , 22 (1): 5-24.
- Howcroft, D. (2001), 'After the Goldrush: Deconstructing the Myths of the Dot.com Market', *Journal of Information Technology* , 16: 195-204.
- Kasheir, D. E., A. S. Ashour, and O. M. Yacout (2009), 'Factors Affecting Continued Usage of Internet Banking Among Egyptian Customers', *Communications of the IBIMA* , 9: 252-263.
- Kesseven, P., R. Sawkut, and S. Boopen (2008), 'Investigating into the factors that influence the adoption of internet banking in Mauritius', *Journal of Internet Business* (5): 99-120.
- Khalid, P. M. (2010), 'Modern Banking' (New Edition ed.), Karachi: K-Be Book Bank.
- Khan, S. (2007-009), 'Adoption Issues of Internet banking in Pakistani's Firm', *Lulea Institute of Technology*: 1-100.
- Li, H., C. Kuo and M, G. R. (1999), 'The Impact of Perceived Channel Utilities, Shopping Orientations, and Demographics on the Consumer's Online Buying Behavior', *Journal of Computer-Mediated Communication* , 5 (2).
- Malhotra, P., and B. Singh (2010), 'An analysis of Internet banking offerings and its determinants in India', *Internet Research* , 20 (1): 87-106.
- Mirza, A. P., M. T. Beheshti A. Wallstrom and O. P. Mirza (2009), 'Adoption of Internet banking by Iranian consumers: An Empirical Investigation', *Journal of Applied Science*: 1-9.
- Nasri, W. (2011), 'Factors Influencing the Adoption of Internet Banking in Tunisia', *International Journal of Business and Management* , 6 (8): 143-160.

- Omar, A. B., N. Sultan K. Zaman N. Bibi A. Wajid and K. Khan (2011), 'Customer Perception towards Online Banking Services: Empirical Evidence from Pakistan', *Journal of Internet Banking and Commerce* , 16 (2): 1-24.
- Polasik, M., and T. P. Wisniewski (2009), 'Empirical analysis of internet banking adoption in Poland', *International Journal of Bank Marketing* , 27 (1): 32-52.
- PWC. (1996), *Why banks and financial institutions in Pakistan are turning towards internet banking? E-Banking* . Price Waterhouse Coopers (PWC) .
- SBP. (2011, oct friday,14). E-banking transactions mount to Rs 5.5 trillion. Retrieved from Pakistan Today: <http://www.pakistantoday.com.pk/2011/02/e-banking-transactions-mount-to-rs-5-5-trillion/>
- Singhal, D., and V. Padhmanabhan (2008), 'A Study on Customer Perception Towards Internet Banking: Identifying Major Contributing Factors', *The Journal of Nepalese Business Studies* , 5 (1): 101-111.
- Yaghoubi, N. M., and E. Bahmani (2010), 'Factor affecting the adoption of Online Banking: An integration of Technology Acceptance Model and Theory of Planned Behavior', *Pakistan Journal of Social Sciences, Medwell Journals* , 7 (3): 231-236.

Table I: Rotated Component Matrix of Internal Respondent Data

Items	Loading	Alpha
<i>F1 – Perceived Ease of Use (PEOU)</i>		
Internet banking services provides helpful guidance in performing the task.	0.724	
The transactional of Internet banking is easy to use.	0.663	
Interaction with internet banking is clear and understandable	0.674	
I find it easy to recover the error encountered while using the Internet banking services.	0.637	
Internet banking facilitates me to complete my banking activities quickly.	0.594	88.80
Using Internet Banking for doing banking transactions much easier.	0.532	
Internet banking allows me to manage my finance efficiently.	0.669	
Internet banking helps to increase customer’s productivity.	0.733	
The services of Internet banking enhance the Customers effectiveness on the job.	0.577	
Variance = 53.12		
<i>F2 – Information on Online Banking (INF)</i>		
Internet banking provides believable/ reliable information.	0.766	
Internet banking provides real time information.	0.826	89.50
Internet banking provides relevant information.	0.834	
Internet banking provides information at the right level of details.	0.770	
Variance = 76.17		
<i>F3 – Perceived Risk (PR)</i>		
The risk of credit card fraud for internet transactions and payment is low for customer.	0.698	
I would feel free to submit my financial information Online because of low risk.	0.688	
By using the Internet banking services, It protects Customer information privacy.	0.556	79.10
There is a low probability to face the problem while making the internet transaction online.	0.549	
All operations through internet banking are guaranteed.	0.675	
Variance = 54.79		
<i>F4 – Government Support (GS)</i>		
Government encourages and promotes the usage of Internet and e-commerce.	0.636	
The government is driving the development of internet banking.	0.760	68.50
The government has good laws and regulations for internet banking.	0.634	
Variance = 61.86		
<i>F5 – Security and Privacy (S & P)</i>		
Authorized username and password are important for securing the data.	0.783	
I trust that transaction through internet banking is private and secure.	0.691	74.9
I am satisfied with the security system.	0.616	
Variance = 66.61		
<i>F6 – Intention to Use (INT)</i>		
I intend to use the internet banking it on a regular basis for achieving the future results.	0.545	
I intend to increase the usage of internet banking in the future.	0.715	75.3
I intend to robustly recommend others to use internet banking services.	0.661	
Variance = 66.98		
Total Variance Explained = 64.064%		

Table II: Rotated Component Matrix of External Respondent Data:

Items	Loading	Alpha
<i>F1 - Intention with Convenience</i>		
I intend to use internet banking it on a regular basis for achieving the desired future results.	0.698	
I intend to increase the usage of internet banking in the future.	0.673	
I will robustly recommend others to use internet banking (IB) services in daily routine transactions.	0.675	
Using Internet banking (IB), I can access anytime and anywhere.	0.658	92.3
The Internet banking (IB) services provides helpful guidance in performing the task.	0.734	
The transactional of Internet banking (IB) is easy to use.	0.715	
Interaction with internet banking (IB) is clear and understandable	0.711	
I find it easy to recover the error encountered while using the Internet banking (IB) services.	0.674	
Variance = 65.31		
<i>F2 - Information of Internet Banking (INF)</i>		
Internet banking provides believable/ reliable information.	0.801	
Internet banking provides real time information.	0.844	93.3
Internet banking provides relevant information.	0.874	
Internet banking provides information at the right level of details.	0.757	
Variance = 83.44		
<i>F3 - Perceived Usefulness (PU)</i>		
Use of internet banking (IB) services can save customers time.	0.77	
Internet banking (IB) facilitates me to complete my banking activities quickly.	0.857	79.5
Using Internet Banking for doing banking transactions much easier.	0.642	
Variance = 71.43		
<i>F4 - Government Support (GS)</i>		
Government encourages and promotes the usage of Internet and e-commerce.	0.782	
The government is driving the development of internet banking.	0.784	72.9
The government has good laws and regulations for internet banking.	0.607	
Variance = 65.79		
<i>F5 - Perceived Risk (PR)</i>		
The risk of credit card fraud for internet transactions and payment is low for customer.	0.816	
I would feel free to submit my financial information Online because of low risk.	0.595	84.0
By using the Internet banking (IB) services, It protects Customer information privacy.	0.671	
Variance = 76.11		
<i>F6 - Security and Privacy (S & P)</i>		
Authorized username and password are important for securing the data.	0.88	
I trust that transaction through internet banking (IB) is private and secure.	0.781	80.4
I am satisfied with the security system.	0.526	
Variance = 73.42		
Percentage of Total Variance Explained = 75.13		

Table III: Results of Multiple Regression Analysis of Internal Respondent Data

Variables	Coefficient β	t-stats	Sig
(Constant)	0.752	2.531	0.012
PEOU	0.253	3.485	0.001
INF	0.123	2.202	0.029
PR	0.147	2.052	0.041
SP	0.147	2.07	0.04
GS	0.224	3.484	0.001
R	.678		
R ²	0.446		
F- stats	34.657		
Sig	0.00		

Table IV: Results of Multiple Regression Analysis of External Respondent Data

Variables	Coefficient β	t-stats	Sig
(Constant)	-0.364	-1.245	0.215
PU	0.323	5.03	0.000
INF	0.206	3.416	0.001
PR	0.159	2.529	0.013
SP	0.268	4.053	0.000
GS	0.142	2.186	0.030
R	.806		
R ²	0.637		
F- stats	53.674		
Sig	0.00		