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Factors Influencing Customer Acceptance of Online Banking in Pakistan and the Moderating Effect of Technophobia

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Abstract
This paper highlights the factors affecting customer acceptance of online banking in Pakistan. The factors include Perceived Credibility, Perceived Usefulness, Social Risk and the moderating effect of Technophobia on all three relationships of independent variables with Customer Acceptance. Online banking is growing in Pakistan at a gradual pace, and tapping this growth is cardinal for banks. The primary rationale of this research is to scrutinize the customer acceptance of online banking in Pakistan. As a conceptual framework an extended Technology Acceptance Model (TAM) was developed to investigate the influencing determinants of customer acceptance. The study was conducted in Rawalpindi and Islamabad, and data was collected through questionnaires administered both personally and online. The regression results of the study showed that Customer Acceptance is affected by the three independent variables, and that Technophobia only moderates the relation between Perceived Credibility and Customer Acceptance.
Keywords: echnology Acceptance Model (TAM), Online Banking, Customer Acceptance, Perceived Credibility, Perceived Usefulness, Social Risk, Technophobia

1. Introduction

General and professional life of human is exceedingly influenced by technology modernization. Usage of internet is one of the major technological changes in the world of technology. Companies are faced with great challenges particularly in business sectors to promote and sell their products and services by means of this new distribution channel. Banking sector among all business sectors has adopted this change competently to provide e-service to their customers. Banking sector of Pakistan has adopted information and communication technology (ICT) in its early stages and offers a variety of online services to its customers through internet with the intention of making transactions more trouble-free and convenient. According to Internet World Statistics (2013) the number of internet users in Pakistan is over 12.1 million till June 2012 and this is 15.3% of total population.

Many people argue that adoption of new technology is risky, use of internet and other technology based transactions are not secure, useful, and practical and could lead to fraud. Whereas, a lot of people consider it protected, flexible, in time and can be undertaken from any place with no rigid rules (Chowdhury and Ahmmad 2011). Business needs to run in sustainable manner because of achieving long term success and it should try to be at competent level. To manage business competitiveness, number of banks and financial services companies are moving from their traditional approach of "bricks and mortar" into a "clicks and mortar" (Beikier, Flur & Saingham, 2000). Banking sector of Pakistan has also adopted this technological change and has invested massive amount of finances to develop effectual information system to get better operations and trim down cost. In the present age financial services companies and banks are probing ways of utilizing internet technologies so that they can attain diverse competitive strategies, which contain cost restraint, performance enhancement, market penetration and alteration of product. Banks have to adopt some special strategies to conquer the difficulty of time-consuming services. Due to the challenging business processes banks are required to initiate some alternate delivery channel to attract customers and improve attentiveness among consumers. It has been observed during the last decade in developed and developing countries that online banking has achieved incredible growth as compared to traditional banking system (Gonza'lez, Mueller & Mack, 2008).

Due to growing concept of globalization, online activities are becoming more imperative for users and it makes such activities fast, vital and convenient for consumers. The use of internet in the banking sector has enormous significance because of the benefits it has for business entities and for customers. Online banking has many facilities for its customers and the whole praise goes to internet which provides ease to its users, customers can perform different activities such as money transfer, past transactional information, cash withdrawals and deposits etc. more promptly.

1.1. Background Research Motivation

The technology acceptance model has previously been applied to Pakistani society in regards to online shopping, mobile banking and other modes of online services. These researches have focused on the basic TAM framework, and have not brought under consideration the fact that Pakistani society is based on collectivism and opinions and influences of those around us play a vital role in any decision or intention. Thus we have identified this research gap and have employed the variable "Social Risk" as a factor influencing customer acceptance of online banking.

Furthermore, the moderating effect of technophobia is also being studied, for the reason Pakistani internet users may be slightly apprehensive as to the usage of internet to carry out their important transactions. The users' fear of the computer may be an obstacle in fast adoption of internet banking in Pakistan, thus it's essential to study and assess its effects.

1.2. Specific Area

For the intention of increasing, attracting and retaining online customers it is of much importance to know about the behavior and attitude of customers and understand what they demand and need. This study probes the impacts of perceived usefulness, perceived credibility and social risk over the customer acceptance of technological changes in Pakistan with the moderating effect of technophobia.

1.3. Objectives of the study

The main objective of this study is to examine the customer acceptance regarding the usage of online banking in Pakistan. The study further investigates whether customer perceives online banking as useful, reliable and less risky mode of technology in banking service or not. Furthermore, investigating the crucial factors that have meaningful effect on the acceptance of online banking in Pakistan, results can give the superlative way out to managers in the banking sector to formulate such strategies for developing internet banking as a new, successful and convenient distribution channel for banking sector. Study will look into the moderating effect of technophobia such as either customer feels fear and panic to use new technological activities, which may hampering the process of accepting new technology.

1.4. Problem Statement

The study focuses on identifying the customer acceptance of online banking in Pakistan by using diverse determinants viz. perceived usefulness, perceived credibility and social risk, along with the moderating effect of technophobia.

1.5. Significance of Study

Companies and banks which are providing online services to their customers are in the need to know about their customer's behavior because behavior varies from person to person and it is imperative for online service providers to get information about user's comfort level and their needs. The most vital factor which influences the customer's acceptance of using online banking and technological changes is technophobia. This study will examine the impact of fear to use new technology on customer's acceptance in Pakistan. In developing countries like Pakistan very less percentage of population uses internet and this reason may have negative impact on the revenue of banks. Thus, top decision making authorities have to analyze the different factors which negatively influence their customer's acceptance of online services. And further formulate steps to reduce technophobia and to provide more awareness to their customers regarding advantages of using online banking in Pakistan.

2. Literature Review

2.1. Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) as originally developed by Davis (1986), and later refined by Davis, Bagozzi, & Warshaw (1989), explains the factors that play a role in users' intention to adopt a technology. The TAM is based on the Theory of Reasoned Action (Ajzen & Fishbein, 1980) and the Theory of Planned Behavior (Ajzen, 1985). However, TAM set forth two constructs viz. perceived usefulness (PU) and perceived ease of use (PEOU) as the basic determinants of user acceptance of any technology, with the former having a more profound effect then the latter.

Technology acceptance model has been widely employed to better understand the consumers' attitudes and behavior towards accepting and using online banking. These studies have modified the basic model to better suit their study and the area of study. Some of the combination of variables used for TAM include perceived usefulness, perceived credibility, perceived ease of use, and convenience (Kazi, 2013); risk perception and individual differences, perceived ease of use, and perceived usefulness (Li, 2013); socioeconomic factors, situational factors, perception factors, and related experiences (Ozdemir & Trott, 2009); Perceived credibility, perceived usefulness, ease of use, computer self-efficacy, and intention (Wang, Lin and Tang, 2003).

The model and its modified forms have been used in various studies to assess technology acceptance of mobile banking (e.g. AlSoufi & Ali, 2014), internet banking (e.g. Radomir & Nistor, 2013), e-learning adoption (e.g. Hsbollah & Idris, 2009), organizational acceptance of new technology (e.g. Liao & Landry, 2000), online transactions (e.g. Celik & Yilmaz, 2011), mobile payments in virtual social networks (e.g. Liebana-Cabanillas, Sanchez-Fernandez and Munoz-Leiva, 2014), online gaming acceptance (e.g. Zhu, Lin & Hsu, 2012) and others.

2.2. Customer Acceptance

Customer acceptance or user acceptance has been defined by Dillon & Morris (1996) as "the demonstrable willingness within a user group to employ information technology for the tasks it is designed to support."

Customer acceptance is by far the most vital phenomena for any technology, or product or service for that matter. Any technology that is bought into the market is only successful if the customers accept it, and eventually use it. Thus there has been rarely a case where the assumption of customer acceptance is challenged (Herbig & Day, 1992).

Customer acceptance, as defined by behavioral intention (BI), has widely been explained by the Technology Acceptance Model (TAM) (e.g. Davis et al., 1989; Adams, Nelson & Todd, 1992; Igbaria et al., 1997; Wu & Wang, 2005; Yang, 2005; etc.). This model and its extensions have identified various factors that directly or indirectly impact customer acceptance of technology. Venkatesh (2000) proposed that the user acceptance of the technology is directly influenced by the ease with which it can be used, which also makes it most useful for the customer.

2.3. Perceived Credibility

Perceived credibility has varied definitions based on previous literature, but the most commonly quoted is that of Suh and Han (2002) that states that perceived credibility is "the belief that the promise of another can be relied upon in unforeseen circumstances." Another view is that by Joseph and Kaplan (1972) who state that perceived credibility is when a user feels the pleasant consequences and certainty of using an electronic application service, when there is absence of perceived risk as defined by its dimensions viz. financial risk, opportunity cost risk, physical risk, social risk, functional risk, information risk, and time-loss risk. However, Wang, Wang, Lin & Tang (2003) in their study have differentiated perceived credibility from trust (e.g. Geffen, Karahanna & Straub, 2003), and from perceived risks (e.g. Liao, Shao, Wang & Chen, 1999), and found that it has a positive impact on the intention to adopt internet banking.

Perceived credibility in a Pakistani context has been researched by Kazi (2013) among other variables, for the adoption of online banking in students of higher education. He found perceived credibility to have a significant impact on the students' intention to adopt internet banking in Pakistan. And further found that students had a positive notion as to the trustworthiness of internet banking.

Hanafizadeh, et al. (2014) in their study used perceived credibility as a factor affecting adoption of mobile banking in Iran. They found perceived credibility to have a positive impact on the acceptance of mobile banking in Iran.

H_1: Perceived Credibility (PC) has a positive impact on customer acceptance of online banking.

2.4. Perceived Usefulness

The concept of perceived usefulness is one of the two factors that strongly affect user behavior in the TAM. Perceived usefulness when first introduced as a TAM construct by Davis (1989, 1993) was defined as "the perceived degree to which an individual believes that using a specific service or system improves his or her task performance." The study's focus was on the individual performance, which may be job performance or task performance among others. However, perceived usefulness has been used in various studies employing TAM, and not just in organizational context but in online banking acceptance (e.g. Singh, 2012), mobile banking acceptance (e.g. Hanafizadeh, Behboudi, Koshksaray & Tabar, 2014), customer satisfaction in online banking (e.g. George & Kumar, 2013), among others.

In a Pakistani context, perceived usefulness was employed by Chandio, Irani, Abbasi and Nizamani (2013) to study user acceptance of online banking information systems. They found perceived usefulness to have a strong impact on the user's intention to accept online banking systems. Qureshi, Zafar and Khan (2008) also employed TAM to study customer acceptance of online banking in Pakistan. They found perceived usefulness, security and privacy to be the major factors effecting customer acceptance in Pakistan.

H_2: Perceived Usefulness (PU) has a positive impact on customer acceptance of online banking.

2.5. Social Risk

Social risk has been defined in various previous researches (Cunningham, 1967; Jacoby and Kaplan, 1972; Stone & Gronhaug, 1993) as "potential loss of status in one's social group as a result of adopting a product or service,

looking foolish or unpopular." The term social risk is among the five dimensions of perceived risk proposed by Jacoby and Kaplan (1972), as inferred from the works of Bauer (1960) on overall measure of perceived risk.

Lee (2009) views that there is a possibility that people may think that using online banking would result in disapproval from the social circle. Furthermore, he suggests that there may a likelihood that the social standing of a person may be enhanced or diminished based on how online banking is viewed. Finally he suggests that how a person views online banking has an impact on his/her perceptions of an adopter or non-adopter. He found in his study that social risk has a negative impact on a consumer intention to adopt online banking.

Pakistan is a collectivist society (Islam, 2004), which entails that there is a high regard for what others think about an individual's actions or preferences. Not only this, the opinions of others have the potential to alter any decision or intention. Thus studying social risk in customer acceptance of online banking in Pakistan is cardinal to better understand the behavior.

H_3: Social risk has a negative impact on customer acceptance of online banking.

2.6. Technophobia

Technophobia has been defined by various researchers, however two most commonly quoted definitions have been proposed by Jay (1981) and Rosen & Weil (1990). Jay (1981) defines technophobia on the basis of resistance to discussing or thinking about computers, anxiety related to computers and harboring aggressive or hostile thoughts about computers. On the other hand Rosen et al. (1990) defined technophobia, or as they refer to it as computerphobia, on the basis of computer-interaction anxiety, negative attitudes about computers including their societal impacts, and "self-critical internal dialogues" when using computers or contemplating interaction in the future.

There are limited researches that use technophobia to understand consumer behavior in the TAM scenario, and furthermore hardly any research that employs technophobia as a moderating variable in TAM. However, technophobia has been used as a moderating variable, among others, in assessing customer loyalty in e-banking by Floh and Treiblmaier (2006). They found technophobia to have a profound moderating effect on the relationship between service quality and satisfaction, entailing that people with low technophobia placed more importance on service quality. Additionally, they found that those people were more loyal to online service provider who didn't face anxiety while using internet.

H_{4a}: Technophobia moderates the relation between perceived credibility and customer acceptance of online banking.

H_{4b}: Technophobia moderates the relation between perceived usefulness and customer acceptance of online banking.

H_{4c}: Technophobia moderates the relation between social risk and customer acceptance of online banking.

3. Research Methodology

The literature review in the previous section allows us to generate a model for our research, as illustrated in figure 1. (Figure 1)

3.1. Sampling Design

A total of 200 questionnaires were administered in the twin cities of Pakistan, out of which 188 were usable. The respondents belonged to different universities viz. APCOMS and Fatima Jinnah; and also employees of various organizations. These questionnaires were administered directly and through online method, as opposed to mail. The response generation through mail is a tedious task, unreliable and time-taking, thus it was not employed. The method employed for selecting the sample is non-probability convenience sampling, where the students and employees are selected on convenience basis.

3.2. Questionnaire Items

The questionnaire items have been adapted from various research papers based on the review of literature, and are validated measures. These items will be assessed on a 5-point Likert scale, ranging from (1) Strongly Disagree to (5) Strongly Agree.

Customer acceptance or behavioral intention (BI) has been measured using the scale developed by Davis et al. (1989), and has been adapted for internet banking context. First three items of customer acceptance were adapted from Venkatesh, Morris, Davis, & Davis (2003). The last item i.e. "I will try to use online banking if necessary in life or work", was adapted from Kuo and Yen (2009).

Four items for perceived credibility have been employed, where two are adapted from Amin (2009), i.e. "I trust in the ability of online banking to protect my privacy" and "Online banking is really secure to use." The other two have been adapted from Wang et.al (2003) viz. "Using the internet banking systems would not divulge my personal information" and "I would find the internet banking systems secure in conducting my business transactions."

Four items for perceived usefulness have been employed. These items have been adapted from Al Somali, Gholami, and Clegg (2009), who modified the original items of Davis (1993). The reason for adaption of modified items is that they have already been used and tested, and better question the concept.

A total of five items have been employed for measuring social risk. The first three items have been adapted from Crespo, del Bosque, and de los Salmones Sanchez (2009), and the other two have been adapted from Lee (2009). The items adapted from Lee (2009) were originally developed by Featherman and Pavlou (2003), but were modified by the researcher to better suit the study and scale.

For technophobia a total of three items have been employed, as adapted from Floh and Treiblmaier (2006). These items assess the effect fear of technology has on online banking.

3.3. Reliability Analysis

The reliability of the items being used in the questionnaire was tested using the *Cronbach's Alpha,* which is commonly referred to as Internal Consistency (IC), and inter-item correlation coefficient. Gliem & Gliem (2003) suggest that when employing Likert-type scales, it's necessary to compute and report the Cronbach's Alpha. Furthermore, the acceptable range of the coefficient has been proposed as 0.7 (Nunnaly, 1978). The results as listed in Table 1 show that the constructs have alpha coefficients higher then 0.8, thus suggesting that the items have a relatively high internal consistency. (Table 1)

4. Results and Analysis

4.1. Analysis of Frequency Distribution

The demographic profile for the respondents in this research include age, gender, education, and occupation. The demographics of the respondents are represented in Table 2, as follows. (Table 2)

4.1.1. Age

The target respondents were university students and employees, thus the age portion was divided into six groups, as illustrated in Table 2. Almost 42% of the respondents fall in the age group of 21-25, and almost 25.5% of the respondents fall in the 26-30 age group. The lowest percentage, i.e. 4.3%, of the respondents belonged to the "41 or above" age group.

4.1.2. Gender

Table 2 shows there are 89 males and 99 females, representing 47.3 and 52.7 percent respectively of the total respondents. There is only a slight difference of 5.4% among the male and female, indicating that the sample almost had an equal number of male and female respondents.

4.1.3. Education

Majority of the respondents are pursuing or have completed their Bachelors or Masters, 31.9% and 35.6% respectively, as shown in Table 2. There are only a small number of respondents who are M.Phil which indicates merely 12.2%. Other than that, 10.1% of the respondents are PhD and Others represent the remaining 10.1% of the total sample size.

4.1.4. Occupation

The majority of respondents are students, i.e. 41%, mainly because they are easy to approach and the questionnaires were administered in two universities viz. APCOMS and Fatima Jinnah Women University. 38.7% of the respondents were employed, and 9.6% were self-employed. The 11.25% respondents in the "Others" category were either housewives or didn't want to reveal their occupation status.

4.1.5. Internet & Banking

The respondents mainly had sound education and were either students or employed, thus they were regular internet users as suggested by the 100 percent in Table 3. Out of the 188 respondents 160 had bank accounts representing 85.1%, and further 122 already used online banking, representing 64.9% of the total respondents. (Table 3)

4.2. Descriptive Statistics

The descriptive statistics have been computed as follows. (Table 4)

The variables were measured on a five point Likert scale, with 1 as "Strongly Disagree" and 5 as "Strongly Agree." Thus the mean values of above 3 for Customer Acceptance, Perceived Credibility and Perceived Usefulness show a positive trends among the responses. On the contrary, the mean values of Social Risk and Technophobia were less than 3, thus suggesting that most of the responses were towards the negative or disagreement.

4.3. Correlation

The results for the correlation analysis is shown in Table 5. (Table 5)

In the correlation analysis, Customer Acceptance is found to be significantly and positively associated with Perceived Credibility and Perceived Usefulness, 0.510 and 0.515 at a significance level of $p<0.01$

respectively. The strength of the mentioned relationships is medium. Customer Acceptance is significantly negatively associated with Social Risk and Technophobia at r-value of -0.530 and -0.523 respectively. Again the relationship among the variables is medium, suggesting that as Technophobia and Social Risk increase Customer Acceptance decreases.

Perceived Credibility has a positive and significant association with Perceived Usefulness, with an r-value of 0.765 ($p<0.05$). These variables are strongly associated with each other and with every increase in PC PU also increases and vice versa. Furthermore, PC is negatively correlated with Social Risk and Technophobia, at -0.555 and -0.518 at $p<0.01$, respectively.

Perceived Usefulness has a significant negative correlation with Social Risk and Technophobia at -0.530 and -0.466 ($p<0.01$) respectively. The strength of the relationship is moderate for Social Risk and weak for Technophobia. The negative correlation suggests that when Social Risk and Technophobia increase, Perceived Usefulness decreases and vice versa.

Social Risk is positively and significantly correlated with Technophobia, at $p<0.01$ and r-value of 0.473. The strength of the relationship is weak. And the positive relation suggests that they will move in the same direction in case of increase or decrease.

4.4. Regression & Moderator Analysis

The regression and moderation results for the dependent variable Customer Acceptance, independent variables PC, PU and SR, and the moderating variable Technophobia, are illustrated below in Table 6. (Table 6)

The model was tested using multiple hierarchal regression, where in Step 1, the dependent variable was tested for the effect of independent variables, and in Step 2 the moderation effect of Technophobia was tested. The correlations among the variables were examined, as presented in Table 5. However, to further correct for any multicollinearity problem independent variables and the moderating variable were standardized in SPSS, as suggested by Friedrich (1982).

In the *first step* of the hierarchal regression, the three independent variables were entered viz. Perceived Credibility, Perceived Usefulness and Social Risk, where Customer Acceptance was the dependent variable. This model was found to be statistically significant at $p<0.01$ with an F value of 36.292, suggesting that the model is a perfect fit without construct problems, and there exists an association among the independent and dependent variables. Thus, proceeding further 37.2% variance in the dependent variable was explained by the independent variables, as indicated by the R^2 value of 0.372. The statistically significant *t* values of the variables suggest that the coefficient was estimated with a fair amount of accuracy.

Assessing the effect of independent variables on dependent variable, all three variables are significantly affecting Customer Acceptance. The highest variation in CA is caused by Social Risk with a beta of -0.313 ($p<0.001$). The Social Risk variable is negatively affecting CA, thus suggesting that they are inversely related, an increase in SR will result in a decrease in the customer's acceptance of online banking. Thus we will accept the hypothesis H_3. The second most affecting variable is Perceived Usefulness, with a beta value of 0.222 at a significance of $p<0.05$. Thus an increase in PU will result in better customer acceptance of online banking, implying the more useful customers perceive online banking to be in their daily life, the more prone they are to accepting it. Thus we will accept the hypothesis H_2.

Perceived Credibility has the least effect among the three variables with a positive beta value of 0.188 at $p<0.05$. Thus implying that with an increase in the perceived credibility of the banks the customers will be more inclined towards accepting online banking. This results in accepting the hypothesis H_1.

In the *second step* of the hierarchal regression there was an addition of the moderating variable technophobia and the three interaction terms, to test for the moderating effect on Customer Acceptance. The interaction term for each variable was calculated by taking the product of standardized moderating variable and the standardized independent variable, thus generating Interaction PC, Interaction PU and Interaction SR. The interactions terms were taken to test moderation effect as suggested by Aiken and West (1991).

The R^2 for the second model is 0.433, thus suggesting that 43.3% of the variation in the dependent variable is caused by the independent and moderating variable. The change in R^2 suggests that the addition of Technophobia in the model was able to explain an additional 6.2% of variation in Customer Acceptance. The F-statistic is significant at 19.667, suggesting that the model is statistically correct. With the addition of Technophobia and Interactions to the model, the variables except PC were found to be significant. Furthermore, the Interaction terms for PU and SR were found to be insignificant, thus suggesting that Technophobia doesn't moderate the relation between PU and Customer Acceptance, and SR and Customer Acceptance. Thus the result reject the hypothesis H4b and H4c.

The Interaction term for PC was found to be statistically significant at $p<0.05$ with a beta value of 0.168. Thus Technophobia is found to be moderating the relation between Perceived Credibility and Customer Acceptance, as suggested in the hypothesis H4a. It's further hypothesized that Technophobia weakens the relation between PC and CA, since with the addition of Technophobia and Interaction terms the predicting power

of PC has decreased.

5. Discussion

The customer acceptance of online banking was studied using three variables viz. Perceived Credibility, Perceived Usefulness and Social Risk, along with the possible moderating effect of Technophobia. The results thus generated from the regression analysis show that Perceived Credibility and Perceived Usefulness have a significant positive impact and Social Risk has a significant negative impact on Customer Acceptance.

The significant relation of Perceived Credibility with Customer Acceptance is consistent with previous studies such as those of Singh (2012), Wang et al. (2003), Morgan and Hunt (1994), Poon (2008), Vega (2009), to name a few. These researchers found Perceived Credibility to have a positive impact on the intention to use online banking. Similarly Kazi (2013) also found Perceived Credibility to have a positive impact on customer acceptance of online banking in Pakistan. He found Perceived Credibility to be the second most significant influence on Customer Acceptance. Thus, it can said that customers are more likely to accept or adopt online banking systems of those banks which they perceive to have better credibility.

The positive impact of PU on CA suggests that users that consider online banking to be useful for their day to day activities, are more likely to accept and use online banking. This is consistent with previous studies such as those of Chandio et al (2013), Davis et al (1989), Venkatesh and Morris (2000), Jan and Haque (2014), and Nath, Bhal, and Kapoor (2014). They all found that Perceived Usefulness significantly impacts a customer's intent to accept online banking. TAM has its roots in the factor of Perceived Usefulness, thus the results are consistent with the theory and the research that followed. Furthermore, the second highest impact on customer acceptance was found to be that of Perceived Usefulness, suggesting that the respondents mostly accepted online banking, if they felt that it would be useful in daily life.

On the other hand, the negative relation of SR with CA, suggests that people who consider the opinion of others to be of importance will accept or use online banking according to that. Thus, a negative relation proposes that if online banking has a negative impact on the image of the person in his/her social circle, then they would not use it. The study found Social Risk to be the major contributory factor, suggesting that owing to the collectivist nature of Pakistani culture, there is an increased concern about one's social image and thus avoiding factors that would negatively impact it. However, it was seen among the respondents that 64.9% were internet banking users, and some of them still ranked negative on Social Risk. Lee (2009) also found in his study that social risk had a significant negative impact on the intention to adopt online banking. Martins, Oliveira & Popovic (2014) in their research also found Social Risk to have a significant negative impact on Internet banking adoption. They studied Social Risk along with other dimensions of Perceived Risk. Other researchers who found Social Risk to have a negative impact on Customer Acceptance include Sanayei and Bahmani (2012), Almousa (2011), and Aldas-Manzano, Lassala-Navarre, Ruiz-Mafe and Sanz-Blas (2009) among others.

Technophobia was found to moderate the relationship of perceived credibility and customer acceptance. The results suggest that the relation is weakened by the presence of Technophobia. Thus suggesting that customer's having a positive perceived credibility may hesitate in accepting online banking, if they have a fear of using technology or computer.

6. Conclusion & Recommendations

This study was focused and carried out to determine the customer acceptance of using online banking in Pakistan. Online banking is escalating in Pakistan but rapidity of growth is not as brisk as compared to other developed countries. Thus it was essential to study factors that may be major contributors to hampering the fast acceptance of online banking. Study concludes that perceived credibility and perceived usefulness are significantly and positively associated with customer acceptance, suggesting that customers who perceive that banks provide online services to their customers are credible enough and useful in their transactions, are more likely to accept online banking. Social risk is another vital factor of online customer acceptance and it's significantly associated but has negative influence over customer acceptance. This has been attributed to the fact that Pakistan is a collectivist society, and opinions of others matter a lot to people. However, it was noticed that among the respondents most were users of online banking, despite this they ranked negative on Social Risk. Thus, it's likely that users of online banking still consider social image as a risk despite using it. This factor may lead to reduction in the number of existing online bankers. Thus banks should devise such advertisements or strategies that may increase the importance and acceptance of online banking, to the extent that social risk may be minimized. The basic risk in Pakistan, when it comes to online transactions of any sort, is default or fraud, thus banks can minimize this by better performance, and standing by what they claim. This may lead to better trust on the banks and thus in a way minimizing perceived risks attached.

The study employed Technophobia as a moderating variable to check for its effects on the relationship of the variables on customer acceptance. It was found that Technophobia only moderated the relation between Perceived Credibility and Customer Acceptance, implying that fear of technology only impacted the perceived

credibility of the banks. It was further assessed that Technophobia has a weakening impact on the relation. Thus to improve for this effect, the banks must design user friendly websites, that are not only easy to use but also provide a sense of security when making transactions. Since money is a major concern for people, and losing it is not a pleasant experience.

7. Limitations & Future Research

The first limitation is that of sample, firstly the size is relatively small, secondly it consists of only respondents from Rawalpindi and Islamabad, thus impacting the generalization of the findings. The second limitation is that there are various other factors that influence the user acceptance of online banking, which we have not included in our study. Some of these factors include subjective norms, self-efficacy, customer attitude, quality of service, compatibility, perceived cost, efficient transactions, to name a few. Other than that, there may be the presence of mediating variables such as various dimensions of perceived risk, attitude to use, etc.

Future research can use the above mentioned variables in their research and also study the user acceptance from an organizational point of view. Furthermore, the effect of marketing efforts and awareness can also be studied to better understand customer acceptance.

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Notes

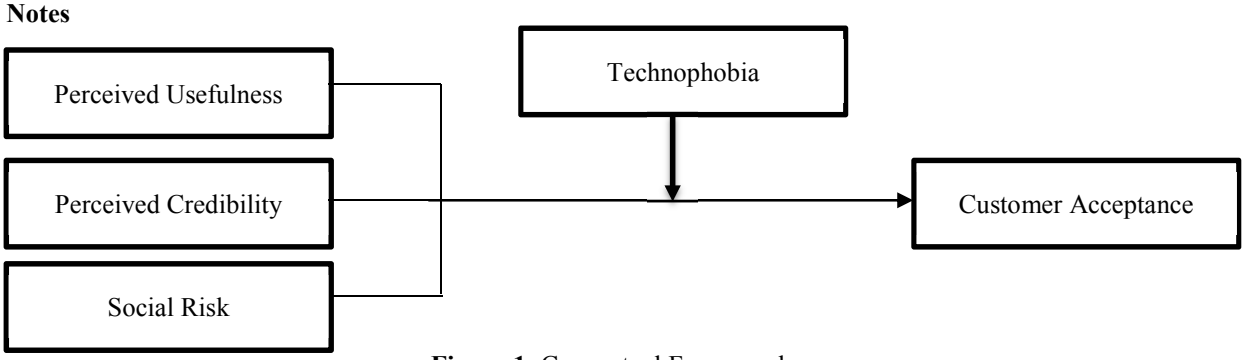

Figure 1: Conceptual Framework

Table 1: Reliability Analysis

Constructs	Cronbach's Alpha	Items
Perceived Credibility	0.890	4
Perceived Usefulness	0.853	4
Social Risk	0.828	5
Technophobia	0.808	3
Customer Acceptance	0.901	4

Table 2: Demographic Characteristics

Measures	Items	Frequency	Percentage
Age	20 or below	26	13.8
	21-25	79	42.0
	26-30	48	25.5
	31-35	16	8.5
	36-40	11	5.9
	41 or above	8	4.3
Gender	Male	89	47.3
	Female	99	52.7
Education	Bachelors	60	31.9
	Masters	67	35.6
	MS/M.Phil	23	12.2
	PhD	19	10.1
	Other	19	10.1
Occupation	Employed	72	38.3
	Self-Employed	18	9.6
	Student	77	41.0
	Others	21	11.2

Table 3: Internet and Banking Statistics

Measures	Items	Frequency	Percentage
Internet Usage	Yes	188	100
	No	0	0
Bank Account	Yes	160	85.1
	No	28	14.9
Online Banking	Yes	122	64.9
	No	66	35.1

Table 4: Descriptive Statistics Result

Construct	N	Minimum	Maximum	Mean	Std. Deviation
Customer Acceptance	188	1.25	5.00	3.4242	0.92891
Perceived Credibility	188	1.25	5.00	3.6516	1.00979
Perceived Usefulness	188	1.75	5.00	3.6277	0.94058
Social Risk	188	1.00	5.00	2.7649	0.89026
Technophobia	188	1.00	5.00	2.8493	1.08262

Table 5: Correlation Results

Constructs	Customer Acceptance	Perceived Credibility	Perceived Usefulness	Social Risk	Technophobia
Customer Acceptance					
Perceived Credibility	0.510**				
Perceived Usefulness	0.515**	0.765**			
Social Risk	-0.530**	-0.555**	-0.530**		
Technophobia	-0.523**	-0.518**	-0.466**	0.473**	

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

Table 6: Regression & Moderation Results

	R	**R^2**	**ΔR^2**	**B**	***t***	***F***
Step 1	0.610	0.372	-			36.292**
Perceived Credibility				0.180*	2.085	
Perceived Usefulness				0.222*	2.611	
Social Risk				-0.313***	-4.327	
Step 2	0.658	0.433	0.062			19.667**
Perceived Credibility				0.064	0.702	
Perceived Usefulness				0.181*	2.055	
Social Risk				-0.279***	-3.790	
Technophobia				-0.264**	-3.510	
Interaction PC				0.168*	1.990	
Interaction PU				-0.127	-1.380	
Interaction SR				-0.030	-0.423	

*p<0.05; **p<0.01; ***p<0.001
Dependent Variable: Customer Acceptance

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