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Assessing the Impacts of Ecological Conditions on Consumer Acceptance of E-Banking in Khyber Pakhtunkhwa, Pakistan

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Abstract
The pace of eBanking accepting is very slow in Pakistan, which is also one of the most debated issues among researchers of eBusiness in Pakistan generally and Khyber Pakhtunkhwa (KP) in particular. This paper focuses on the perceived security effects of eBusiness on acceptance of eBanking, and the role of local environmental conditions i.e. attitude, subjective norms, and perceived behavioral factors towards acceptance in of eBanking in Khyber Pakhtunkhwa in comparison of these factors in the Punjab province. This study is based on the information gathered from the (300) sample respondents i.e. individual banking customers in the provinces of KP and Punjab. The regression analyses were used. Findings of the study suggest that customer perceived non-repudiation; trust relative advantage, internet experience and banking needs as the most significant factors that shape and reshape the acceptance in KP, while in comparison, the internet experience and banking needs were found with significant impacts on eBanking acceptance in the Punjab province.
Keywords*:* eBanking, Security, Trust, Internet Experience, Banking Needs, Ecological Conditions, KP, Punjab and Pakistan

INTRODUCTION

The concept of eBusiness brought into fore the very significant management issues being faced by IT managers, which were first identified by Brancheau et al. (1996). Banks and similar institutions need IT for their survival in the competitive environment. The radical changes in market demand besides flexibility to adapt since customers demand more real time online access to products and accounts. It is, therefore, imperative that banking sector must satisfy their customers using eBanking by reducing costs, and expanding their operations beyond the geographical boundaries to provide interactive facility of eTansactions.

The banking sector of KP took several steps in this direction however; these are not well accepted by the customers, as several factors collectively impede the growth of eBanking, not only in KP but also throughout the country (Kundi & Shah, 2007). They are further of the view that "security is generally considered as one of the most important impediment to online business in Pakistan especially when it comes to eBanking." Similarly, Seyal et al. (2004) points that "the lack of security such as unauthorized access use of the corporate networks, sniffing of the packet, modification in data, unregistered transactions, unauthorized access to data and information besides denial and frauds are also the barriers towards online business with reference to financial institutions and banking sector," whereas Kundi et al. (2008) notes that asserts to consider the extent to which a user accesses his online accounts. According to them it depends on the specific legal, economic, political, and social conditions which encircle that user." Bushra (2002) share the similar views and argue that the influence of local culture is gaining more momentum in studying the acceptance of technology. Therefore, experts studied the significant influence of the culture in acceptance of technology as it is complex and multi-faceted phenomenon. The study points that how the attitude, government IT policies, income of regions, and perceived eBusiness security explain the differences in the acceptance of eBanking in the provinces of KP and Punjab. The specific objective of this study was to identify eBusiness security influences on the acceptance of eBanking in KP and Punjab and to examine the differences in terms of local environmental conditions.

ICTs in KP & PUNJAB

According to Kundi et al. (2008) studied the impacts of the socio-economic conditions of a country which might influence the income and prosperity levels as the most relevant to application of ICTs in eBusiness, and found that availability of technological infrastructure and the ability of consumers to use it properly play significant in

acceptance of this innovative technology. Likewise, they also identified that government IT policies and plans also significantly to influence the level of acceptance of eBanking, which is consistent with findings of Bakhtiar Khan (2005). Likewise, Kundi & Shah (2009) explored in detail the ecological dimensions i.e. social and economic conditions, IT and internet diffusion and government IT policy to find their relevance on eBusiness acceptance and use in Pakistan.

Economic Indicators of KP & Punjab

The socio-economic parameters for KP and Punjab in Table 1 show the differences in terms of area, population, size and economic status. In term of areas, it could be seen that KP is smaller than Punjab, in size and population, however, Punjab is more dense and populated than KP. The KP percapita income which is one of the significant factors indicating the level of prosperity level is almost near to that of Punjab. There are similarities between the two provinces e.g. both are multi-racial, multi-religion societies, with the literacy rate of 47% in KP and 58% for Punjab.

Table: 1 Demographic Profile of KP and Punjab

ITEM	KP	PUNJAB
Population	17,744 million (approximate)	73,621 million (approximate)
Geographical Area	74,521 Sq. Km	205,345 Sq. Km
Literacy Rate	47%	58%
Ethnic groups	Pushtun 73.9%, Saraiki 3.9% Urdu 0.8%, Punjabi 1.0% and other 20.4%	Punjabi (76.7%); Saraiki (14%) and others (1.4%)
Official Language	English	English
National Language	Urdu	Urdu
Local Languages	Urdu, Pushtu, Saraiki	Punjabi and Saraiki
Economy	Middle-Income province in process of transformation into business economy	Developed and emerging multi-sector economy
GDP Growth Rate	7.5%	7.8%
Per Capita Income	US$ 925	US$ 1085
Below Poverty Line	46.3%	23.9%

Source: PES (2012); *KP& Punjab Economic Report (2012, 2013) and PSLM (2011-12)*

Government IT Policy

The government of KP has made sincere and hectic efforts to develop and promote IT culture and allocated handsome funds to support IT usage like the Punjab government. Yet Bakhtiar Khan (2005) in his survey of banking sector in KP found that internet usage is yet to mature to be used in banking sector of KP, according to him four out of hundred internet users' access eBanking services for different purposes. Furthermore, according to Pakistan Economic Survey (2012-13), KP is a middle-income province and the Personal Computer (PC) penetration rate in the province is about 16.6%, where cost of dial-up internet access is relatively high for the users to go online and to connect to a dial-up point. Commercial broadband services were first launched by WorldCall in 2005-2006 and Wateen Telecom in 2007-2008. At the end of 2013, there were a total of 6.49 million mobile phone and 60.3 landline subscribers, while subscribers' penetration rate was 26.38% and 43.33% respectively (Pakistan Telecommunication Authority (PTA) Report, 2012). Punjab on the other hand, is economically and industrially rich than KP. Table 1 show that it's per capita is greater than KP. Besides conventional dial-up for local access, broadband DSL and wireless EVO internet service is also available to home subscribers. The town and cities connected with internet in Punjab (according to PTA, 2012) has crossed the figure of 1433 where in KP it is 561. Since 2001, users in Punjab are enjoying the DSL where most of the ISPs are also operational since 1987 (Kundi, 2009). The eBanking and eShopping was 1st introduced in Punjab and eTransaction facility is now common to the psyche of the Punjab (Zarmeene, 2005) and (Shakaib, 2006) reports.

Table 2: Comparison of ICTs in KP and PUNJAB

ITEM	KP	PUNJAB
Cellular Mobile Penetration/Teledensity	26.38	43.33
Fixed Line Subscribers (in million)	0.63	2.92
WLL Subscribers (in million)	0.95	0.21
Mobile Subscribers (in million)	6.49	37.87
PCs per 100 people	16.6	62.20
Cellular Mobile Phone Teledensity/Penetration	26.38	43.33
Citizens and Towns connected with internet	561	1,433

Source: PTA-2012

RESEARCH METHODOLOGY

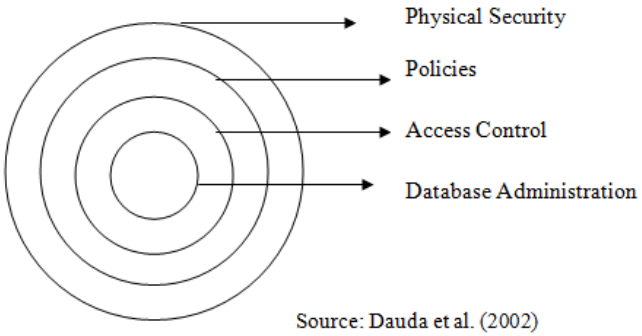
Survey is widely used in social sciences including management of IT-projects and particularly in assessing the impacts of IT-acceptance in public and as well private organizations. Since, eBanking services are currently offered to both individuals and corporate clients in Pakistan. This research examined that how eBusiness security and local ecological conditions may influence the acceptance of eBanking among customers in KP and Punjab, thus population of this study was individuals having bank accounts. Both primary and secondary data was collected. The primary data was gathered by employing three different methods. At first stage, hard copies of questionnaires were administered to collect empirical data. Most of the responses (221) were received from this method. This method was used as it is easy to trace, control and monitor the answers from the respondents in comparison to mailed survey. Second, online questionnaires were also used to collect primary data which were also used by Tan & Teo (2000) and Brown et al. (2003). According to them, online questionnaires were the appropriate in which the questions were directed at internet users. In third stage, softcopy of questionnaires were used for the respondents who were using personal computer (desk top and laptop). Though this method was slow, however, answers of the respondents' could be considered reliable as it is more or less like a face-to-face interview without being face-to-face. At this stage, respondents with only specific characteristics or background were included. A total of 79 (KP: 43 and Punjab: 36) responses were collected from the second and third methods.

A total of 500 hard copies of the questionnaires (KP 300 and Punjab 200) were administered, out of which 294 were received (KP 175 and Punjab 119), 86 questionnaires were rejected due to missing of data and inconsistency in the responses. Likewise, 110 questionnaires were not returned then, another 10 questionnaires were administered, out of which 5 properly filled questionnaires were selected thus, bringing the total to 300 responses available for the analysis.

The secondary data was collected from books, journals and online sources, the variables of the study were based on three ecological dimensions i.e. socio-economic conditions, IT and Internet diffusion and, government IT policies, mentioned above in the selected economic indicators for KP and Punjab. The variables were extracted; furthermore, theoretical framework was developed and hypotheses were proposed. Likewise, the secondary data was used to support the results of the hypothesis.

Inclusion of Major Variables Influencing acceptance of E-Banking

E-business security implies concerns of the consumers for the risks involved in online financial transactions. According to Kundi & Shah (2009), even in developed countries where eBanking is well established, one of the significant factors slowing down the pace of eBanking is consumer's concern for the security of online transactions. In this study the researchers have used the Dauda et al. (2002) model for classification of eBanking security into: 1. database administration, 2. access control, 3. computer physical security, and 4. policies.



Source: Dauda et al. (2002)

Along with security issues, another significant variable examined by researchers in this study is the local ecology of eBanking, which was also used by Tan & Teo (2000) and Brown et al. (2003). It is recognized that relative advantage, internet experience, banking need, subjective norms, facilitating conditions and support from the government are the significant predictors which influence the acceptance behavior of user. Roger (1983) and Agarwal & Prasad (1997) used it for "the extent to which a person perceives an innovation that offered an advantage as compared to the ways of performing the same task previously." Likewise, Rogers (1983) defined the internet experience and banking need as "the degree to which an innovation is viewed being consistent with the existing values, needs and experiences of a user." Similarly, Hagenaars (2003) and Tan & Teo (2000) defined subjective norm as "a person's perception about the people who are important to him and who should or should not perform the behavior in question." Whereas, according to Kundi et al. (2008) and Taylor & Todd (1995) the facilitating conditions mean "the easy access of technological resources and infrastructure." Wolcott et al. (2001); Kundi et al. (2008) share similar views by adding that "consistency of government support with the national systems of innovation theory also have significant role, this implies the government policies be encouraging for development and adoption of technology."

Theoretical Framework

The theoretical framework is based on literature survey; was developed to study the impact of customers' perception of eBusiness security, and local ecological conditions on the acceptance of eBanking in KP and Punjab. Researcher on TAM have suggested several models to explain the factors determining consumer acceptance of eBanking (see for example, Tan & Teo, 2000; Pavlou, 2003; Suh & Han, 2003; Venkatesh et al., 2003) and 'technology acceptance model' (TAM) devised by Davis (1986), which was also used by Suh & Han (2003).

According to these researchers "one of the commonly used models for explaining the factors that influence the acceptance of information systems by users is TAM. Yet Fishbein & Ajzen's (1989) presented 'theory of reasoned action' (TRA). According to TRA, user behavior is determined their relevant beliefs. Besides theses two, other theories include: 'theory of planned behavior' (TPB), 'decomposed theory of planned behavior' (DTPB) by Taylor & Todd (1995) and Roger's (1983) theory of diffusion of innovation. Tan & Teo (2000) points that "DTPB use constructs from the innovation literature e.g. relative advantage, compatibility, subjective norms, and perceived behavioral control by decomposing them into more specific dimensions." Likewise, unified theory of acceptance and use of technology 'UTAUT' of Venkatesh et al. (2003) illuminate performance expectancy, effort expectancy, social influence and facilitating conditions along with four demographics i.e. gender, age, experience and voluntariness of use, and their relationship for use of information technology.

With this background, the schematic diagram of the theoretical framework of this research (see, figure 2) is developed which is based on TAM and DTPB models. This model explain the acceptance and non-acceptance of eBanking influenced by two factors i.e. eBusiness security, and local ecological conditions.

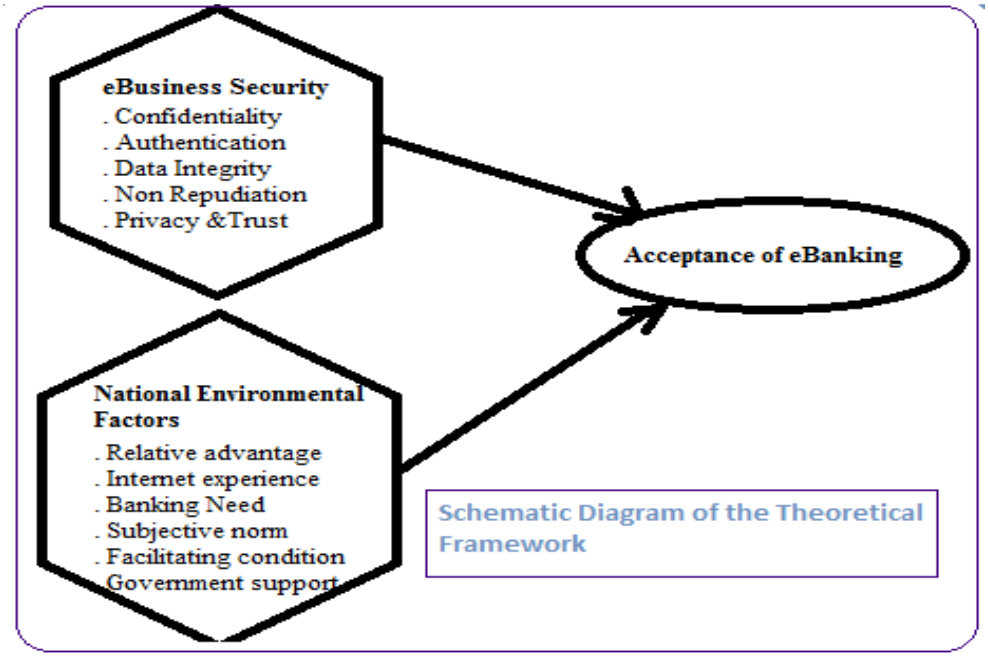


Figure 2: Research variables, used by Suh & Han (2003), Tan & Teo (2000).

Proposed Hypotheses of the Study

To guarantee the security of transaction in eBanking (i.e. confidentiality and authenticity), security experts suggest the use of encryption. According to Kundi (2009) encryption is a technology that guarantees the security of communications. In Pakistan, eBanking facilities are delivered by financial institutions that are highly regulated and controlled by State Bank of Pakistan and Securities and Exchange Commission of Pakistan (Kundi, 2009). Thus, the guarantee of the government of Pakistan encouraged the customers, so it is assumed that most people are expected to use eBanking. This study also points that "the issue of trust is based on the belief that another person or organization with whom user is communicating will behave in a socially acceptable way i.e. honest, caring, and capable up to the satisfaction of party's expectations" (Kundi & Shah, 2009; Gefen et al., 2005; Karahanna et al., 2003). These studies argue that "trust is fundamental for economic transactions as it reduces the risks", Moreover, Kundi et al. (2008) and Mcknight et al. (2002) concluded that "with this trust and confidence, the perception about the trust of website can have positive impacts on acceptance of eBusiness, thus we propose the following alternate hypothesis:

H_1. The perceived strength of eBusiness security has significant impacts on consumer's acceptance of eBanking in KP and Punjab.

On other side, Agarwal & Prasad (1997) viewed relative advantage "as the extent to which a person views an innovation that offer an advantage over performing the same task previously because eBanking services permit customers to access their accounts 24 hours a day and 7 days a week from any place, which is a great convenience for the users in comparison to conventional banking. Moreover, internet experience of the customers and their banking needs may also have influence on their acceptance. With the enormous growth of these new products and services, it is likely that individuals with more than one financial account who are availing several banking services will be more prone to accept eBanking. The researchers like (Kundi et al., 2008 and Bakhtiar Khan, 2005) reports that "expected users of eBanking services are anticipated to owe multiple accounts and subscribe to various banking products", they further argues that "potential users, who are experimenting the innovation will get more comfort with this innovative technology, hence expected to accept it." Likewise, according to Tan & Teo (2000) "if customers have the opportunity to use this innovative technology then uncertainty and fear of unknown factors may be reduced. On other hand, Kundi & Shah (2009) and Mbarika (2002) are of the views that "IT policy of the government may serve or thwart IT and internet diffusion", this is "consistent with the innovation theory of national systems of King et al. (1994) and Wolcott et al. (2001). According to them, government IT policies can encourage the development and acceptance of technology. These studies are consistent with Kundi (2009) and Tan & Teo (2000), according to them "government can play leading role in the diffusion of IT innovation." Thus prospected users are expected to view new eBanking services more positively and use them. On the basis of the previous studies, thus we propose our second alternative hypothesis as:

H_2. The local ecological conditions have significant impacts on the consumer's acceptance of eBanking in KP and Punjab.

Reliability & Validity of Research Instrument

The instruments of the study were tested for reliability before application i.e. checking the degree to which observed variables measure the "true" value and to know whether they are "free of error" or not. The constructs of the study were tested for reliability through Cronbach's alpha test. According to Robinson, et al. (1991), generally agreed upon lower limit for Cronbach's alpha is 0.7, however it may reduced to 0.6 in an exploratory cases (See for example, Robinson et. al., 1991; Hair et al., 1998). Yet Nunally (1967) recommends that "score of each construct must not be less than 0.6." Data integrity, confidentiality and technology were excluded from analysis as the value fell below 0.6 acceptance levels. Likewise, it was not possible to calculate Cronbach's alpha for authentication and non-repudiation, which had one item however, the remaining 8 items with more than one item in their respective constructs were computed. The below table 3 portrays Cronbach's alpha which lies in the range of 0.6 to 0.9.

Table 3: Reliability Analysis

Factor	Variable	No. of Items	Cronbach's Alpha
E-Security	Authentication	1	-
	Non-Repudiation	1	-
	Confidentiality	2	0.393*
	Data Integrity	2	-0.061*
	Privacy Protection	2	0.858
	Trust	2	0.716
Attitude	Relative Advantage	3	0.884
	Government Support	2	0.769
	Internet Experience	10	0.650
	Subjective Norm	3	0.926
	Banking Need	15	0.985
	Self-Efficacy	2	0.730
	Technology Support	2	0.394*
Dependent Variables	Adoption of Internet Banking	3	0.632

*Excluded from next data analysis as it falls below 0.6 (acceptance level)

To further test the convergent and discriminant validity, factor analysis with varimax rotation was applied. The Kaiser-Meyer-Olkin measure of sampling adequacy (MSA) was 0.795, so it was found suitable to apply factor analysis. To decide the minimum loading required to include an item in its respective construct, the constructs with loading greater than 0.3 were considered significant recommended by Hair et al. (1998) as loading greater than 0.4, more important; and loadings 0.5 or greater were very significant.

Therefore, we accepted the items with loading of 0.4 or greater with two rounds of factor analyses. The preliminary result recommended that seven factors can be extracted, hence, the varimax rotation with factor loadings was generated which can be seen from table 4. The seven factors with eigenvalues greater than 1.0 were identified which accounted for about 62.5% of the total variance. The items measuring 'relative advantage' (1 through 3); 'trust' (1 and 2); 'privacy protection' (1 and 2); 'authentication and non-repudiation' were found together in factor 1, except for 'relative advantage' (1, 2, and 3), while remaining four items measured the security of eBanking.

It could be safely concluded from the factor analyses that respondents who perceived eBanking beneficial as compared to those who performed the same task previously, considered eBanking security measures more favorable and use more products and services offered by eBanking.

Table 4: Factor Analysis

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Relative Advantage-1	0.829						
Relative Advantage-2	0.804						
Trust-1	0.766						
Relative Advantage-3	0.758						
Privacy Protection-1	-0.718						
Privacy Protection-2	-0.682						
Authentication	0.633						
Trust-2	0.615						
Non-Repudiation	0.594						
Internet Experience-1		0.676					
Internet Experience-2		0.651					
Internet Experience-3		0.649					
Subjective Norm-1			0.930				
Subjective Norm-2			0.927				
Subjective Norm-3			0.848				
Government Support-1				0.772			
Government Support-2				0.749			
Banking Need-1					0.696		
Banking Need-2					0.625		
Banking Need-3					0.602		
Banking Need-4					0.574		
Banking Need-5						0.738	
Self Efficacy-1						0.633	
Self Efficacy-2						0.543	
Eigenvalues	***7.556***	***4.156***	***2.323***	***1.898***	***1.641***	***1.513***	***1.396***
% of Variance	***20.422***	***11.232***	***6.278***	***5.130***	***4.435***	***4.088***	***3.772***
Cumulative %	***20.422***	***31.654***	***45.030***	***50.160***	***54.595***	***58.683***	***62.456***

The factor 3 measured the 'subjective norms' (1 through 3) and factor 4 the 'government support' (1 and 2) likewise, factor 5 (1 through 4) and factor 6 (5 through 7) respectively measured the 'banking needs'.

Test for Multicollinearity

Before, regression analyses, the test of multi-collinearity were also used as recommended by Kundi et al. (2012) Tan & Teo (2000) and Gujarati (1995). Kleinbaum et al. (1988) recommends the calculation of variance inflation factor (VIF) for each independent variable, they further suggest that if the (VIF) for each independent variable exceeds 10, then it is believed to be highly collinear and may cause problems in regression analysis." As may be seen from table 5, the variables together with their respective VIF values ranges between 1.030 and 2.416, well below 10, thus, we have not found the problem of multi-collinearity.

Table 5: The computed VIF value for KP and Punjab

Variable	KP	Punjab	KP+Punjab
Authentication	1.084	1.051	1.071
Non-Repudiation	1.089	1.037	1.030
Privacy	1.628	2.223	1.768
Trust	1.850	2.291	1.973
Relative Advantage	2.058	2.416	2.190
Internet Experience	1.191	2.208	1.488
Subjective Norm	1.269	1.133	1.269
Self-efficacy	1.409	1.815	1.412
Government Support	1.419	1.263	1.237
Banking Need	1.327	1.949	1.334

Demographic Characteristics of the Respondents

The sample size of the study was 300. Demographic profile is depicted in table 6. It can be seen that with reference to gender, (68.2%) were male in comparison to females (31.8%). This is consistent with Tan & Teo (2000) and Brown et al. (2003). Likewise, if we look into the age, we can see that respondents were mostly young. In KP, 51.9% of respondents fall between 20 and 29 years age. Moreover, almost all internet users were young between 20 to 29 years while, young adults fall between 30 to 39 years. This composed the total 79.7% of internet users. Once again results show consistency with Tan & Teo (2000) of 64.1% between 20 and 29 years old.

Table 6: Demographic Characteristics of the Respondents

	KP		Punjab		Total	
	Frequency	%	Frequency	%	Frequency	%
Gender						
Male	103	65.6	105	68.6	208	68.2
Female	54	34.4	48	31.4	102	31.8
Age						
20 to 29	83	51.9	55	36.9	138	44.5
30 to 39	48	30.6	61	39.9	109	35.2
40 to 49	15	9.6	23	15.0	38	12.3
50 to 59	5	3.2	12	7.8	17	5.5
Highest Education						
Secondary School	13	7.3	10	7.5	23	7.4
Bachelor's Degree	72	44.9	59	39.6	131	42.3
Master's Degree	25	16.9	30	18.6	55	17.7
Doctorate Degree	13	8.3	3	2.0	16	5.2
Existing Profession						
Student	42	25.8	27	18.6	69	22.3
Executive	37	24.6	40	25.1	77	24.8
Technician	6	3.9	8	5.1	14	4.5
Retired/Housewife	0	0	2	1.3	2	0.6
Average Monthly Income in Pakistani Rupees						
RS 5,000 -RS10,000	66	42.1	32	20.8	98	31.6
RS 10,001- RS 20,000	46	29.4	39	25.4	85	27.4
RS 20,001- RS 30,000	22	14.1	45	29.3	67	21.6
RS 30,001- RS 40,000	11	7.0	21	13.7	32	10.3
RS 40,001- RS 50,000	10	6.5	13	8.4	23	7.4
More tan RS 50,000	2	1.4	3	2.1	5	1.6

From education point of view, most of the respondents hold bachelor degree (42.3 Bachelor, 17.7 Master and 5.2 Doctorate). This figure is also consistent with Browns' (2003) who documented 68% of respondents. Similarly, in KP, majority were students while in Punjab, majority of respondents were executives. Moreover, as a whole majority of 24.8% was executives and professionals and 22.3% were students. If see the table 6, we can see that among working group, 29.3% were earning an average monthly income from Rs. 20, 001 to Rs. 40, 000. Yet, respondents from Punjab were found with much higher income as 29.4% earn Rs. 40,001 to Rs. 50,000.

Testing of Hypotheses

The multiple regressions analyses were done to test the hypothesis, 10 factors were used in the study i.e. eBusiness security implies confidentiality, integrity, authentication, non-repudiation, privacy and trust and the local ecological conditions including the relative advantage, internet experience, self-efficacy, subjective norm, banking needs, government support and technology support. The reliability test of this study shows that Cronbach's alpha for confidentiality, integrity and technology support fall between the range of 0.061 to 0.394, which is below the acceptance level of above 0.60, recommended by Nunally (1967) and commonly accepted in social sciences, so they were excluded. Thus only 10 factors were used in the study for multiple regression analysis. The independent variables used in the study for analysis include (H_1) authentication, non-repudiation, privacy protection and trust, and (H_2) relative advantage, internet experience, banking needs, self-efficacy, subjective norm and government support, regressed on "acceptance of eBanking".

MAJOR FINDINGS

Hair et al. (1998) suggest the use of multiple regressions to estimate a single equation which implies to develop a relationship or influence between independent variables and dependent variables." Table 7 highlights the results of multiple regression coefficients between all independent variables and the dependent (eBanking acceptance) variable. In table, the figure 0.729 is (R-value) is evident for KP and 0.722 (R-value) for Punjab. It may be seen from the results that there is a significant variation between the independent variables and dependent variable for KP and Punjab. The R Square illustrates the goodness-of-fit value of 0.531 for KP and 0.614 for Punjab. This means that about 53% (KP) and 61% (Punjab) of variance in the dependent variable is explained by the independent variables respectively.

Table 7: Regression Results for "KP" and "Punjab"

	R	**R^2**	**F**	**df1**	**df2**	**Sig.**	**n**
KP	0.729	0.531	10.324	15	138	0.000	155
Punjab	0.722	0.614	14.334	15	136	0.000	145

It can be inferred from the results that null hypothesis was not substantiated as F values (10.324 and 14.334) have small p-value i.e. 0.000 and 0.000 for KP and Punjab. Therefore, alternate hypothesis is accepted. Moreover t-test was used to evaluate the null hypothesis. The unstandardized regression coefficients were fixed to 0, shown in table 8 as t statistic. The factors significant at $p < 0.05$ were highlighted. The results of for internet experience (H_{2b}) and banking needs (H_{2c}) were accepted as they significantly affect the acceptance of eBanking in KP and Punjab. Likewise, non-repudiation (H_{1b}), trust (H_{1d}), and relative advantage (H_{2a}) were also found with significant impact on acceptance of eBanking in KP, yet, not in Punjab. Moreover, no support for the authentication (H_{1a}), Privacy (H_{1c}), Self-Efficacy (H_{2c}), subjective (H_{2e}) and government support (H_{2g}) was found for the acceptance of eBanking in KP and Punjab as well.

Table 8: Use of eBanking in KP and Punjab

		KP				**Punjab**			
Variables	Hypothesis	Beta	SE	t	Sig.	Beta	SE	t	Sig.
E-Security	H_{1a}	0.046	0.061	0.782	0.436	0.044	0.055	0.797	0.428
	H_{1b}	-0.167	0.062	-2.583	**0.011**	-0.002	0.054	-0.051	0.957
	H_{1c}	0.107	0.072	1.444	0.151	-0.014	0.089	-0.142	0.881
	H_{1d}	0.186	0.078	2.364	**0.019**	-0.105	0.071	-1.311	0.182
Local Ecological Conditions	H_{2a}	0.181	0.083	2.162	**0.032**	0.024	0.083	0.263	0.791
	H_{2b}	0.385	0.061	6.093	**0.001**	0.574	0.078	7.281	**0.001**
	H_{2c}	0.315	0.067	4.722	**0.000**	0.308	0.074	4.152	**0.000**
	H_{2c}	0.183	0.066	2.161	**0.000**	0.209	0.052	2.530	0.113
	H_{2e}	-0.005	0.065	-0.096	0.921	0.008	0.057	0.146	0.884
	H_{2g}	0.070	0.080	1.141	0.252	-0.083	0.060	-1.384	0.169

Likewise, researcher for example, Wooldrige (2003) have suggested the use of chow statistic to further test the difference in regression for testing the null hypothesis of two groups (F statistic), which follow the same regression function against alternative slopes that vary across the groups. In this study, the researchers used it to get understanding whether same regression model explain the eBanking acceptance for KP and Punjab or not. The equation F= [SSRp –(SSR1+SSR2)]/(SSR1+SSR2)*[n–2(k+1)]/(k+1) was developed as suggested by Wooldridge, where SSR1 stands for (Sum square residual for KP) and SSR2 (Sum square residual for Punjab), similarly, SSRp for (Sum square residual for KP and Punjab), while n is the (Number of observations) and k+1 stands for (df regression), so F= [182.357–(72.643+58.904)]/(72.643+58.904)] * [300-2(15)]/15*7.21, thus null hypothesis is therefore: H_3: There is a significant difference between the determinant of eBanking in KP and Punjab. Moreover, it may be seen from the above statistics that F value was estimated at 0.05 levels of significance, thus H_0 hypothesis is not substantiated and hence rejected, therefrom we can infer that there is significant difference between KP and Punjab as the product calculated above points significant difference in regression functions between KP and Punjab.

CONCLUSIONS & FUTURE IMPLICATIONS

The findings of this study are based on the discussion in the light of the previous studies and results, points that eBanking acceptance is predicted by internet experience and banking needs both in KP and Punjab. The dominant influence of internet skills and experience also reveal the pivotal role of technology acceptance in both provinces. The banking needs significantly affect the use of eBanking, therefore, the researchers conclude that banks must provide innovative and value added products and services to its customers. Likewise, banks must concentrate on youth who take more risks and like comfort. Besides, another group needs to be focused is the affluent segment of society as they have more than one bank accounts and subscribed to different services and needs Moreover, strong affect of the relative advantage in KP shows that the compatibility of eBanking is perceived valuable being one of the reasons for the acceptance.

Likewise, security reasons for acceptance or non-acceptance of eBanking in KP is perceived non-repudiation and trust in eBanking systems. Publicly trusted control system certification must be installed inter alia education of customers for its usage especially SET protocols, which is used to resolve the issues of non-repudiation as it uses public-key cryptography. Moreover, banks must ensure the use of trust seals, like DigiCert and VeriSign. Therefore, it is no surprise that some 30% respondents who were surveyed in this study were using privacy seal for their eBanking transactions in KP. This study further point that more than 78% respondents have no understanding of web assurance seal and 19% have no knowledge of web seal, likewise, 64% were not sure about the web seal which is consistent with the findings of Bakhtiar Khan (2005).

In addition, banks must promise refunds for unauthorized transactions under certain conditions to win consumer confidence in eTransactions. The convenience of eBanking may be improved in KP through introduction of more innovative products and services. During the study, the researcher's themselves visited banks in KP and observed that mostly the debit cards were not available, however on the other side, Al-falah, Soneri, Standard Chartered and others banks were offering it to their customers in Punjab. If the numbers of card-holders as well as eShops who accept them are increased then one can positively expect increase in eTansactions and acceptance of eBanking. Likewise, the cost of internet access is relatively high in non industrial KP as compared to industrial Punjab due economic constraints. The results further describe that some 53% respondents from KP were of the opinion that their banks and eTailers charge 2% as service charges on each transaction as compared to very nominal in Punjab. Moreover, the penetration rate of household broadband is very low in KP. Succinctly, the future of eBanking is bright if physical and legal infrastructure is put in place besides education of customers.

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