

## Factors that Influence the Adoption of Online Banking Services in Hyderabad

Maitlo GM<sup>1</sup>, Kazi ZH<sup>2</sup>, Khaskheley A<sup>3</sup> and Faiz M Shaikh<sup>4\*</sup>

<sup>1</sup>Dean Faculty of Commerce & Business Administration, Shah Abdul Latif University, Khairpur, Pakistan

<sup>2</sup>Assistant Professor, IBA-University of Sindh-Jamshoro, Pakistan

<sup>3</sup>Assistant Professor, Department of Economics, University of Sindh-Jamshoro, Pakistan

<sup>4</sup>Assistant Professor, SZABAC-Dokri-Larkana-Sindh, Pakistan

### Abstract

The purpose of this research paper is to determine those factors that influence the adoption of online banking services in Hyderabad. A theoretical model is provided that conceptualizes and links different factors influencing the adoption of online banking in Hyderabad. A total of 302 respondents in Hyderabad were sampled for responding. Factor analyses and regression technique are employed to study the relationship. The results of the model tested clearly that use of online banking is influenced by channel convenience, perceived risk, security perception, prior internet knowledge and information on online banking. The results also determine that demographic factors also impact significantly on online banking. Finally, this paper suggests that an understanding the factors affecting intention to use internet banking is very important to the practitioners who plan and promote new forms of banking in the current competitive market.

**Keywords:** National Savings; Life-Cycle hypothesis; Granger causality

### Introduction

There is no any guarantee that technology advancement will lead to successful consumer adoption, because the customer's acceptance and intention towards adoption of new technology are very crucial aspect of product development and marketing. The successful propagation of new technology can be partially determined by potential users' adoption of innovation.

Today in era of Information technology every business wants to deliver their products and service via various electronic channels. Banks are also one of them which are nowadays more focused towards electronic delivery of services and its importance of traditional branch networking has declined. Marvelous advances in technology and aggressive combination of information technology becomes the main reason for transformation of traditional banking into online banking. Technology is playing very important role in the competitive era of financial industry. The recent developments in the technology have created totally new service concept and service environment. Technology has changed the nature of buying and selling of services. One of the fundamental changes in the banking industry has been the movement of consumer from traditional to e-banking such as internet, telephone and mobile phones in private banking. This research is conducted to find out the influence of Channel Convenience, Information on online banking, Perceived Risk, Prior internet Knowledge, Security Perception (Independent variables) upon Online Banking Service Adoption (Dependent Variable).

### Ecommerce and internet

E-commerce and internet banking is nowadays prioritized by many financial institutions. Internet banking and e-commerce is also known as providing new services and products in banking sector. By the help of internet banking and e-commerce small banks can creates opportunities to compete same as larger banks are doing. Customers who want more quality products and services in innovative way can avail these services quickly. According to Kayode said that customers can also access different banking services such as transfer of funds from one account to another, also do transactions of different banks customers and check their accounts balance through internet banking and e-commerce. In today modern era, every customer has computer

access at their homes and they can easily browse information related with transaction.

According to Arun chalam and Siva Subramanian, via internet banking, mobile banking or by web browsing customer can easily get information about personal banking transactions. Customers can easily avail internet banking service and enable customers of bank to do transactions such as transfer of payments, know about latest balance, review of bank statements regarding transactions, easily search and access all history related to accounts. The internet banking services facilitates customers of financial institution as well as individuals and businesses in order to have faster, speedier access of accounts, business transaction or collect information related with financial products and services either through public and private internet network. By the help of internet customers can feel comfortable regarding transactions and feel easy to access their accounts. Internet banking can act as intermediary for financial institutions and customers to enable services via internet. Sometimes those entities that provide internet banking may not be successful all the time. Moreover, importance of internet is growing rapidly in banking sector it give benefit to both financial institutions and customers but most of the time it is not necessary that all those organizations who adopt e-banking would get success they can face failure because of less creative web designs and due to other factors as well.

It is not necessary that all organizations of developing countries can provide these services but some entities provide information regarding their products and services on web only, this is the reason that mostly bank customers can't feel comfortable to manage financial affairs or doing transaction through electronic banking. The banks introduce

**\*Corresponding author:** Faiz M. Shaikh, Assistant Professor, SZABAC-Dokri-Larkana-Sindh, Pakistan, Tel: 071-4002057; E-mail: [faizanmy2000@hotmail.com](mailto:faizanmy2000@hotmail.com)

**Received** December 02, 2014; **Accepted** December 17, 2014; **Published** December 27, 2014

**Citation:** Maitlo GM, Kazi ZH, Khaskheley A, Shaikh FM (2015) Factors that Influence the Adoption of Online Banking Services in Hyderabad. Int J Econ Manag Sci 4: 216. doi: [10.4172/2162-6359.1000216](https://doi.org/10.4172/2162-6359.1000216)

**Copyright:** © 2015 Maitlo GM, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

new products and services innovatively in market and invest huge cost on it but if the customers doesn't feel satisfy to access these web services then it create problem for most of the banking institutions fail to gain profit because adoption of services from customer side decreases.

### Online banking

Online banking is one of the conventional phases in retail banking services. Online banking enabled the banks to enhance its operation through cutting the cost efficiently and effectively to change the traditional system of banking to mobile banking services. In today's modern era, through online banking customers can easily avail services and easily get information regarding their transactions without having visits in branches such as balance inquiry, inter-accounts transfer, utility bills payment, request check book etc as well. Most of the banks are introducing electronic banking system because of more advancement in technology and information system which help the customer/user to interact with bank rapidly and easily. Even it is predicted by most of the banking concerned people that, in coming time instead of only physical market competitions increases but online technology (virtual market) market share also increases and this is the reason that most of the companies were switching from physical markets and entering into virtual market.

In online banking the most important issues faced by banks are security and safety through which banks can specially build customer trust easily and helps the bank to retain customers as well. It is difficult for customer to trust on banks in terms of security and safety. According to Lee and Turban, because of safety and security concerns mostly customers feel hesitate/ confuse to use online banking/internet banking. The main reason behind customer dissatisfaction is security issues. Whenever customer satisfaction and customer acceptations towards any products and services are positive it will increase probability for that product and service succeed in market.

In addition, Ram and Sheth stated that the market failure of innovation is major caused because of customer dissatisfaction and resistance. The most popular system in online banking system is ATM (automated teller machine) which helps the customer to carry out their banking transactions and easily avail all banking information. Due to more advancement in internet technologies, online banking nowadays play very crucial role in e-payment area and also provide online transaction platform to customers, support many e-commerce business such as online shopping, online auction and internet stock as well. In contrast, Hood, Murphy said that the demographic profiles of customers and their way to use ATM shows high association. However, Stevens et al., found that there is significant relation between customer usage pattern of ATM and psychographic profiles.

**Basics of electronic banking:** The electronic delivery of traditional and new products to the customers through electronic channels like ATM, internet and computer is called Electronic Banking. Through e-banking or electronic banking the transaction among companies, banks, individuals and financial institutions can easily take place. E-banking also helps banks/financial institutions to make their customers happy by providing them faster, reliable and speedier services as compare to manual system of banking. Banks can also create their competitive advantage through electronic banking and maintain their customer relationships as well.

E-banking helps the banks or financial institutions not to get only effective results in efficient manner but tell those ways to deal better and in advanced way with customers as well. For banking sector, customer

preferences and liking matters a lot which raises their profitability, helps them to expand their business and accomplishments. Electronic banking is the way through banks can easily connect with customers and straight forwardly prepare, manage and control all financial transactions [1]. Electronic banking is advanced way of dealing customers and it consists of different distribution channels. However, Daniel stated that banks can provide information and services to customers with the help of television, telephone or mobile phone. Nowadays electronic banking takes more importance and has bigger platform than banking with internet. Moreover, Daniel also said that there are four different channels through which electronic banking can be carried out by banking sector such as pc banking, internet banking, managed network and TV based banking. Daniel, further defined PC banking as it is the process in which banks assign specified software package through which customers can easily avail banking services.

While Karjaluoto [2,3], argued that among all these channels nowadays TV based banking, telephone banking and managed network are not that much effective as well as cannot play crucial role in banking sector. Nowadays technology plays important role in organization success and development of core competencies that is the main reason that mostly banks either domestic banks or foreign banks are more focusing on adopting advanced technologies so that they can provide all technological services such as PC banking, mobile banking, ATM, electronic funds transfer, account to account transfer, paying bills online, online statements and credit cards to their customer in innovative way than ever through electronic banking. Those banks that can provide e-banking services can have positive impact on their organization and earns huge profit. Electronic banking also creates opportunities for all emerging countries to build and sustain their financial intermediation infrastructure of banking sector. In future electronic banking can be provided through mobile banking or wireless devices through which customers can easily know about their account balances as well as seek advice from banks what type of transaction can be done at what time, contact with bank through mail.

**Conception of online banking:** The sign for the recent home online banking services were distance banking services over the electronic media from the early 80s. The term online become known in late 80s and refers for the use of workstation, keyboard and TV (or Monitor) to access the banking organism using the phone line. 'Home Banking' can also refer to use of various numeric keypads to send the instructions to the bank using tones of phone line. Online services get started from New York in 1981 when city's four major banks (Citibank, Chase, Manhattan, Chemical and Manufacturers Hanover) offered home banking services using videotext system.

Videotexts system were well known system used in early 1970 to 1980, that provides the interactive content on a television to the end user of information in computer-like format. The UK's first home online banking were set up by the Nottingham Building Society (NBS) in 1983. To operating the home online banking smoothly they had used UK's Prestel system with the help of BBC Micro, or Keyboard (Tandata Td1400) connected to the telephone and television set.

With the help of Home link system customers can have easily access upon viewing of online statements, bank transfer and bill payments. The phenomenon of technology in banking started with the use of punch card machine such as Accounting Machines or Ledger Posting Machines. At that time use of technology were limited to keeping the books of bank. Later on online real time system came into existence and vast improvement into the telecommunication during the late

1970's and 1980's. It resulted in going up in the field of banking with "Convenience Banking" as a buzzword. Due to convenience banking, the bank is carried to the door step of the customers.

The 1990's saw the birth of spread computing technologies and relational data base management system. The banking industry was basically waiting for these technologies. Now with the help of distribution technologies, one could constitute devoted machines called front-end machines for customer service and risk control while communication in the batch mood without obstructing the response time on the front end machine. Intense competition has forced the banks to rethink upon ways they operated in business. So for that, they to discover as well as improve their products and services to make them more cost effective and beneficial. Technologies in the form of Internet banking has made it viable to look for substitute banking practices at lower cost.

In current era of information technology more and more people are using the electronic banking products and services because large section of the bank's prospects will be made up of computer literature customers. However company should have to strengthen their products and services up to that extend level as banks can easily compete with their rivals on the basis of electronic means.

**Online banking in Pakistan:** Online banking is the most current and recent advance technology in Pakistan like ATM, credit cards and debit cards internet banking is the now days banking product and services. In the Pakistan first took start from the MCB they introduce ATM and credit card facility in mid-1990 the online banking supported by transition of the electronic banking ordinance 2002 by the government of Pakistan. Legal respect of digital signature that related with risk associated documents with the exercise of electronic technology in business. In recent station mostly all Pakistani banks has their own network system. Issuing debit and credit cards collectively operating banks ATM network with each other's. Mostly in the Pakistan ATM and online banking debit and credit cards have the greater then 2000. the annual report of 2005 State bank of Pakistan describe the ATM facility provide by domestic banks and the credit card facility provide by foreign banks like Stander charter and Citi banks control on credit card facility in Pakistan and overall 95% of total amount of transitions.

In Pakistan online banks system adopted little bit late compared to other countries, but they try to do competition with them. Now days Debit and Credit card facility frequently are using by the account holders. Presently 28 commercial banks providing online banking facility in Pakistan 74% of Pakistani banks are operating online banking services. As already discuss MCB took creativity introduce ATM and credit card facility according to report of SBP 2011 currently 4,737 ATM machines are working in Pakistan. In Pakistan Allied banks Limited has 573 ATMs. Allied bank is largest bank in online banking system establish 800 online branches in Pakistan. Mostly commercial banks of Pakistan are offering computerized banking services to their customer and all linked with each other order to operating ATMs.

Online banking systems reduce the cost of operations like physical appearance of banks and workers mostly in the Pakistan e banking creativities and utilize the technology benefits and produce other many benefits in the banking system Pakistan has been among the late inter in the online banking. First ATM was start in 1999 and in 2000 internet banking was introducing [4].

Financial institutions of Pakistan will also have to increase suitable protection to deal with the operational risks. 90% of the banks in urban

areas using computerized system by 2006. Different banks offering different facility like fund transfer in the other banks. Some bans also provide mobile banking facility in which we can transfer utility bills can do payment through mobile phone.

### Structure of study

This research is divided into 4 chapters as shown in Figure 1. In the first chapter the background of the selected area is presented followed by a problem discussion that ends with limitations. In chapter two theories related to the topic will be conferred. Chapter three consists of the methodology used in this research. In the chapter four defines the data is collected through quantitative technique and the analysis of data. Finally, chapter five consists of findings, conclusion and suggestion for further research (Figure 1).

### Definitions of Terms

- ❖ Channel convenience
- ❖ Information on online banking
- ❖ Perceived Risk
- ❖ Prior internet Knowledge
- ❖ Security Perception

### Channel convenience

Copeland defined convenience goods as a class of consumer products that were intensively dispersed and required least time and physical and mental effort to purchase.

**Information on online banking:** The important factor that consumers consider before adopting is the amount of information they have about internet banking. According to Sathye [5], while the use of internet banking services is fairly new experience too many people, low awareness of internet banking is a major factor in causing people not to adopt internet banking.

**Perceived risk:** Bauer [6] defined risk in terms of uncertainty and consequences associated with consumer's actions. Perceived risk increase with uncertainty or the degree of associated negative consequence.

**Prior internet knowledge:** Karjaluo et al. showed that prior experience with computers and technologies and attitudes towards

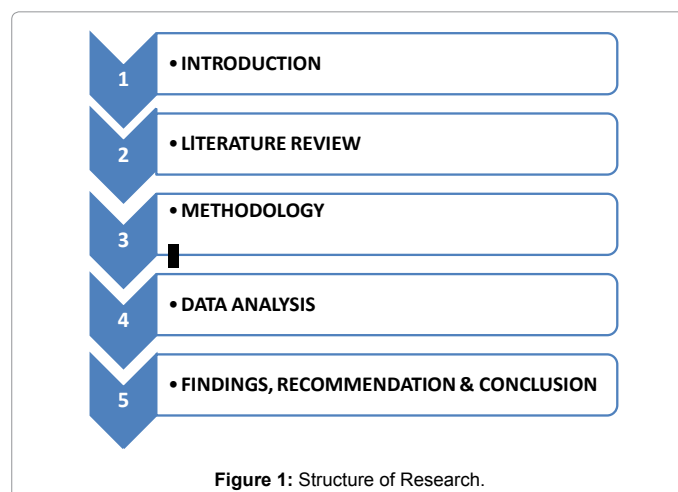


Figure 1: Structure of Research.

computers influence both attitudes towards online banking and actual behaviors.

**Security perception:** Security is one of the very important factors in determining the decision of consumers to use Internet banking. In USA, Thorton Consulting which conducted a survey focusing on banks concluded that 67 percent of US banks feel that “security concerns” is the major barriers for Internet banking.

### Research problem

In current era of competition everybody wants such type of facilities which can save their valuable resources. Online banking is one of them. The aim of this research is to know the influence of Channel Convenience, Information on online banking, Perceived Risk, Prior internet Knowledge, Security Perception (Independent variables) upon Online Banking Service Adoption (Dependent Variable).

### Research objectives

The main objective of the study is to determine among which variables contributes to Adoption of E-banking in Hyderabad. The specific purposes of this study are as follows:

1. To determine the adoption of e-banking factors in the banks of Hyderabad.
2. To examine the effect of channel convenience, information of online banking, perceived risk, security perception and prior internet knowledge on adoption of e-banking.
3. To find out the influence of demographic variables upon adoption of online banking.
4. To analyze relationship between independent and dependent variable.

### Justification

The basic motive of an organization in this global world is to increase the organization performance for that online banking plays crucial role in the productivity of organization. This research will provide food for thought to those financial institutions who want to increase the market share with the help of online banking.

### Scope

This study will carry forward upon the customers of different banks of Hyderabad. This research will be completed within the time frame of four months.

### Limitation

In this study customers of different banks will be taken into account for survey.

### Literature Review

#### Introduction

Online banking is quite important for everyone in current technological era, because nowadays everyone wants to get their works quickly, so for that internet banking is a viable source to get their work done quicker as compare to the traditional one. To deal with online transactions some of the factors should be keep in the mind for the smooth operations of your business, Influence of Information on Online Banking, Channel Convenience, Prior Internet Knowledge, Security Perception and Perceived Risk.

### Online banking

Shanmugan and Guru define in way that the closely worldwide connectivity offered by internet has made IT an invaluable tool of business. These types of advancements have shaped a new type of economy, which may be called digital economy. This fast emerging economy is bringing with it rapidly changing technologies, created the awareness for all the areas of business and forming cybernetic supply chains and new methods of businesses and service delivery channels such as online banking.

The term online banking/e-banking has been used in literature in various ways, to some extent electronic banking refers to several types of services through which bank's customers can request for the information and carry out most retail banking services through internet, television or cell phones. Online banking means providing the banking products and services quickly to their customers through electronic medium, interactive communication channels. Basel Committee has comprehensively defines the online banking as the provision of retail and small value banking products and services through electronic channels, such products and services can include lending, taking deposit, account's management, e-billing payments and services such as electronic money. According to Byers and Lederer, that e-business literature has studied the occurrence of the online banking from various angles. Some research has explored the progression and adoption of online banking, while others define the challenges and benefits to be enlarged form online banking services which are concerned for organization. From the last two decades banking sector has chosen the new type of medium to provide the services based on information technology with the help of internet for the sake of customer preferences and needs, competition has been increased from non-banks, changes in social trends and demographics, and deregulation from government for financial service sector.

According to Shah and Clarke the adoption of new IT application is largely influenced by the some of the factors such as overall organizational attitude and culture as well infrastructure and technical elements.

### Demographics characteristics

Demographic factors also linked with the adoption of different banking channels, mostly internet banking [7]. For examples people with high education and have good knowledge about the computer and their system work and have good information and skills. These abilities are critical in the situation of internet banking and therefore a relationship between formal education and adoption is submitted. According to Flavia 'n et al. mostly women less like to conduct their banking activities online. one research in Turkey also show according to the Akinci et al. [8] mostly mid age consumer are more likely to conduct their banking activities online compare to the younger and older consumer to use internet banking [9] appearances that those who belong to upper class they more like to using online banking system thy feel it's less costly and time saving tools. It's usually familiar that demographic factors have excessive impact on consumer behavior and attitudes concerting online banking analysis that there is significant different on age, gender and income towards using internet banking. Davis et al., [10,11] define the degree in which a person trusts that using a particular system improve his or her job and also increase their work performances.

Mostly general factor of user's is attitude towards technology, and their using experience and getting information from the people it

support to use easy and increasing the information and way to using that in different contexts. Easy of using consumer perception that using internet banking involves fewer efforts these for that customer who believe that system using is easy according to the [12] (Figure 2).

### Channel convenience

Convenience has been identified that adoption is very important issue for new technology (ACNielsen and Pew defined convenience is good for the consumer product because they need time and physical efforts to purchase product after that some other definition of convenience focus on resources such as time and efforts required in shopping also for that they produce product [13]. Other researchers, also forcing on the concept of convenience to non-shopping activities also. It's connected to the graphic view of internet compare to mobile banking [14] besides these 24 services are presented [15,16]. Easily do home contact world wide access and worldwide services also available, time saving and can use through the internet banking, in previous author discussing retail banking is a complete advantage for retail channel in the services [17] convenience is one factor in transaction channel and determined the key channel transaction channel preferences and doing satisfaction. In this study also indicated that the support convenience was the most important variables adoption of all online activities. Convenience recognized by many studies that is an important adoption factor. An us study shows that conveniences is important factor for internet banking 24hours access and time saving. Chung and Paynter found many of people not interested to using internet banking they did not need high convinces. Accessibility, which related to convenience also found an important factor.

### Information on online banking

The banking sector should focus on beliefs, attitudes as well as behaviors of customer which helps them to provide services according customer preferences. According to the Shih and Fang, through online banking, banks can utilize resources in creatively as well as innovatively in order facilitate their customers to carry out transaction in near space. The online banking helps the banks to provide services and customers can conveniently do transaction like payment, account transfer, and

create investment opportunities. Moreover, online banking provide different service to customers as well as help banks to do retail banking with the help of computer, television and mobile.

According to the Gerrard and Cunningham online banking is cost saving for banks and ultimately creates convenience for the customers therefore convenience and online banking has positive correlation among them. Most of the banks provide online banking services which encourage the customers to use it because online banking because it costs less, the employees made error sometimes in manual work so it reduces that human error and disputes among employees and customers. In addition, Gerson stated that emergence of IT-based technologies facilitates banking sector to satisfy needs of the customers. The banks can provide additional service quality which creates loyalty among customers. The emergency of the internet has greater impact on the distribution of electronic banking and day by day create opportunity for banking sector to provide 24 hour services to their customers so it is beneficial for banks as well as customers and remove all boundaries related to time as well as geography.

### Prior internet knowledge

The banking sector changes from traditional way of branch banking to modern way of providing services. According to the Joseph Schumpeter, technology motivates banks to study about customer behaviors. Moreover, new emergence of technology changed the way of doing transaction like buying and selling of financial transactions with the help of different distribution channels like mobile phones and internet banking. This whole changing helps the banking sector to know about customer preferences. According to the Bagozzi et al., the present behavior of the customer depends upon their past experiences to use internet coupons. The emergence of internet technology also impacts the perception as well as the behavior of the bankers. Kolachi said that different banks of Pakistan provide online banking services and products like inquiry, payment, request and download of information regarding customer profile.

### Security perception

The banks as well as the customers are really concern about the security issues because of lack of those laws which govern the online banking/internet banking. Security perception can be defined as the main area of customer concern in the adoption of internet banking. The security issues depend on both computers as communication security. Even though, electronic/online banking provides the opportunity to banks but it is limited just because of the security issues and technological problems. Most of the time customers are reluctant to use e-commerce or it-based technological services like online banking because there may be interruption in their private information. Most of the banking studies show security and privacy as their major concern. Moreover specifically, the security and privacy issues are the major barriers in the adoption of online banking services. According to the Roboff and Charles, most of the customers are aware of risks concerns but can't have full grips on information related to security concerns. However, customers think that bankers have more concern about their security issues and have strong faith on bankers while low confidence on technology. In contrasts, Chung and Paynter stated that adoption of online/internet banking was low because customer feels fear to avail this facility only due to security problems. The major concern of customers regarding online banking usage is different security as well as privacy perception. According to the Hain et al., mostly those customers who are not using online banking services are more concerned about security and privacy issues as compare to those who avail it.

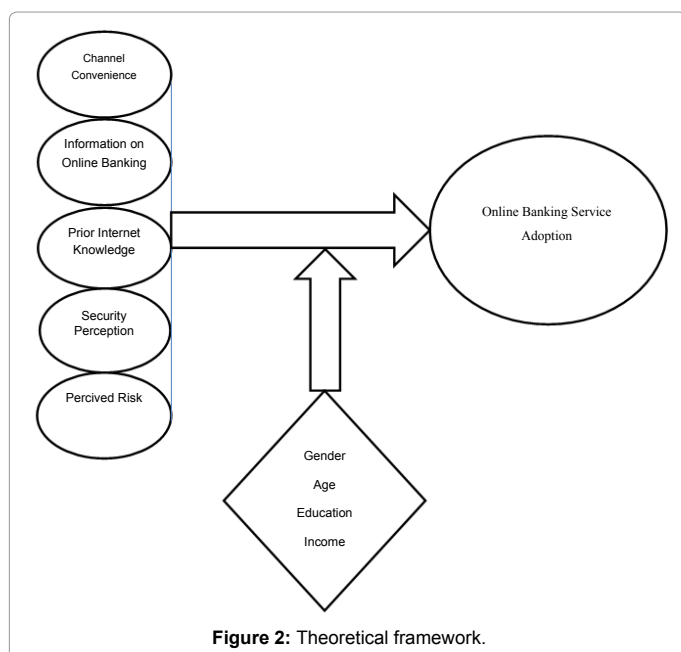


Figure 2: Theoretical framework.

### Perceived risk

The factor mostly effecting on the adoption of online banking by customer is perceived risk. Many studies [18,19] believed customer risk perceptions to be a major problem to the future growth of online banking services. Bauer defined risk in term of doubt and cost linked with consumer actions. Perceived risk increase with uncertainty and size of negative magnitude. According to the Hdi-Peng et al., the degree in which consumer perceived risk and customer own ability to face the risk that impact on the purchasing strategies [20]. It's a tension that effect on the consumer perception whether risk or happened or not. Mostly the less perception of risk involved in the internet banking the more likely an individual used online banking system. According to Littler and Melanthiou. Cunningham et al., Pavlou, Salam et al., Schlosser et al., [21-24]. Perceived risk is an important factor that influencing online consumer performance because of the online banking and criminal act and perfumed with high speed because there is no any physical channel according to this author. If any illegal person able to get information through the internet that will create financial loss. Mostly the distance, nature of the environment creates uncertainty of using global organization to connect and reduce the risk through the elements of e-commerce services. The main components of perceived risk are security and trust, which consider top issue. Perceived risk always show an uncertain and risky environment. According to the Krauter and Kaluscha online transactions always take place in risky environments and lake of control and resourcefulness are involved. Online trust can reduce the levels of perceived risk associated with transaction process [25]. Previous research shows that E-commerce approval show that perceived security risk is an important factor of internet banking adoption. Perceived risk can also cause to reject new technology based services delivery mostly customer are also worried about that technology based services delivery system not work as expected and take time to solve the problem.

### Research Methodology

This chapter is all set to define the whole procedure through which the research came in to the real shape by explaining the research design, instruments and actions, data taking and data interpretation procedures and furthermore this chapter includes methodological assumptions and limitation, so this whole chapter elaborates the kind of systematic way, through which this research was successfully analyzed and resulted.

### Research design

This research is quantitative in nature, because in that research we have to collect the information from the respondents through questionnaires in which we have to see which of the variable has more impact on adoption of e-banking. Primary data will be collected through the close ended questionnaire. In this study data of independent variable and dependent variable were collect from the customers of different banks of Hyderabad.

### Population

For this research estimated population is 1400 banks customers

### Sampling technique

Convenience sampling techniques has been adopted to collect the response. krejice Morgan table has been used to select the sample for research, At 1400 population sample size of 302 were taken into for the collection of data from the respondents.

### Measurement and instrument selection

The questionnaire has been used to collect the information for respondents, For measurement, we will quantify the respondent's response with the help of likert 5 point scale. Ranging from (1=strongly disagree, 5=strongly agree).

### Data collection procedure

Questionnaire is used for data collection.

### Software used

In this research we have used Microsoft Excel and Word software version 2007, and SPSS coding software to find the results for this research study, and this SPSS helped us to find the Impact of the all variables on the adoption of online banking, and understand the influence and relationship between the independent variables on the adoption of online banking.

### Data Analysis

This chapter deal with the data returned from Customers of banks of Hyderabad (Appendix). The first section of this chapter will introduce the demographics information. In the administration of survey, participants' demographics data were collected along with Adoption of online banking and Channel Convenience, Information on online banking, Perceived Risk, Prior internet Knowledge, Security Perception factors data. The motive of collection of these demographic data was to knowing the general information about the customers of Banks. Those demographics data consisted of participants' age, gender, education and occupation, further analysis consist of reliability, comparison of co-relation of various variables and regression.

### Reliability

**Interpretation:** Table 1 shows the .769 Cronbach's Alpha, which is more than the required standard reliability of .60 that means the instrument of this research is quite reliable.

### Frequencies

The gender of responding customers consists of 56% males (169) and 44% females (133) (Table 2).

**Interpretation:** The research demographics result show that response received 169 (56%) were males and 133 (44%) were the females. Total number of respondents was 302 (Figure 3).

Reliability Statistics	
Cronbach's Alpha	N of Items
0.769	28

Table 1: Table representing Reliability statistics.

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	169	56	56	56
Female	133	44	44	100
Total	302	100	100	

Table 2: Gender Frequency between males and Females.

Age Group	Frequency	Percent
15-20	45	15%
21-25	105	35%
26-30	112	37.10%
31-35	40	13.20%
Total	302	100

Table 3: Table representing age interpretation of various age groups.

### Age interpretation

Table 3 shows the age of the respondents the total respondents were 30 out of which 15% lies under the age of 15 years to 20 years, 35% between 21 years to 25 years, 37.10% between 26 years to 30, 13.20% between 31 years to 35 years (Table 3 and Figure 4).

### Education interpretation

After the categorization of the respondents in male and female, and furthermore it was divided regarding their standard in which they study Figure 5 which shows that 10.3% from High School along with

Education	Frequency	Percent	Valid Percent	Cumulative Percent
High School	31	10.3	10.3	10.3
College	38	12.6	12.6	22.9
Graduation	130	43	43	65.9
Masters	103	34.1	34.1	100
Total	302	100	100	

Table 4: Educational interpretation division of standards.

Occupation	Frequency	Percent	Valid Percent	Cumulative Percent
Student	112	37.1	37.1	37.1
Independent	44	14.6	14.6	51.7
Blue-collar worker	62	20.5	20.5	72.2
Middle Staff Employee	64	21.2	21.2	93.4
Executive	20	6.6	6.6	100
Total	302	100	100	

Table 5: Occupation Interpretation.

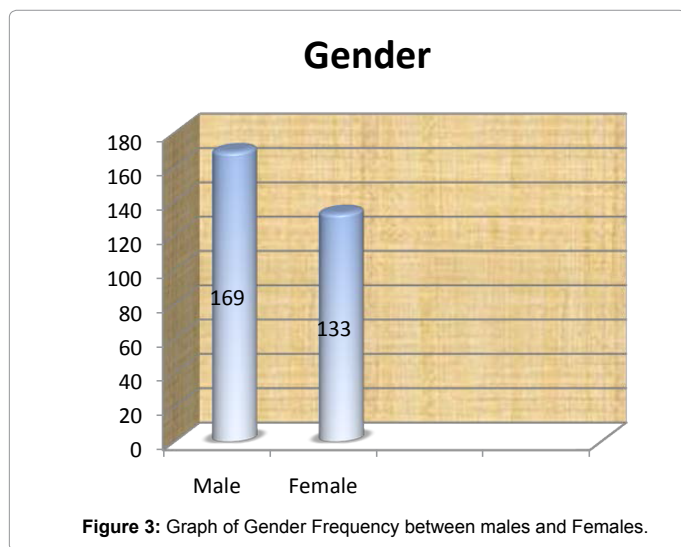


Figure 3: Graph of Gender Frequency between males and Females.

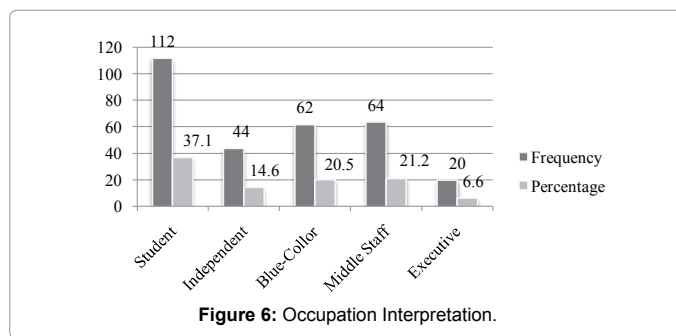


Figure 6: Occupation Interpretation.

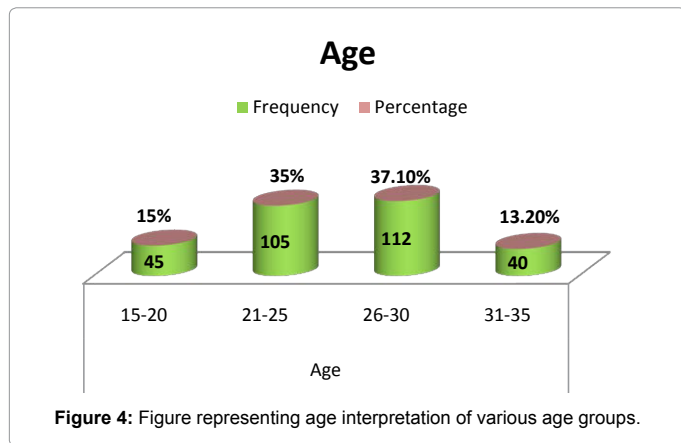


Figure 4: Figure representing age interpretation of various age groups.

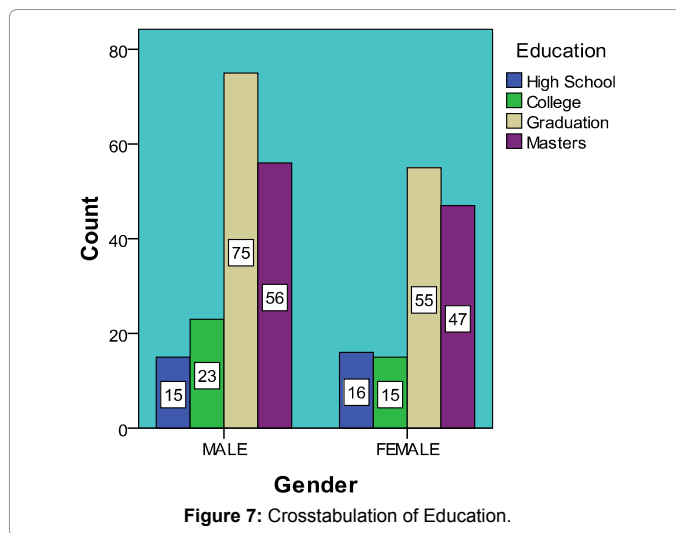


Figure 7: Crosstabulation of Education.

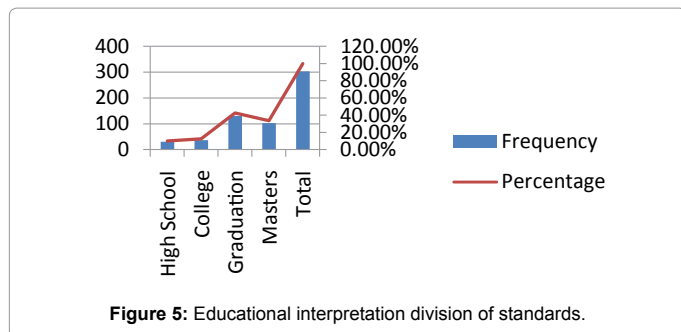


Figure 5: Educational interpretation division of standards.

the frequency of 31, while 12.6% are from College, that has frequency of 38.43% from graduation along with the frequency of 130, while 34% are from Masters (Table 4).

### Occupation interpretation

After the categorization of the respondents regarding their standard in which they study graph no 4.2.4 which shows that 37.1% from Students along with the frequency of 112, while 14.6 % are from Independent, that has frequency of 44. 20.5% from Blue-Collar along with the frequency of 62, while 64% are from idle Staff has frequency

of 64. While the executive has percentage of 6.6 and frequency of 20 (Table 5 and Figure 6).

**Crosstabulation**

**Interpretation:** The Figure 7 shows that there were actually 302

Gender * Education Cross tabulation	Education				Total
	High School	College	Graduation	Masters	
Gender MALE	15	23	75	56	169
FEMALE	16	15	55	47	133
Total Count	31	38	130	103	302

Table 6: Crosstabulation of Education.

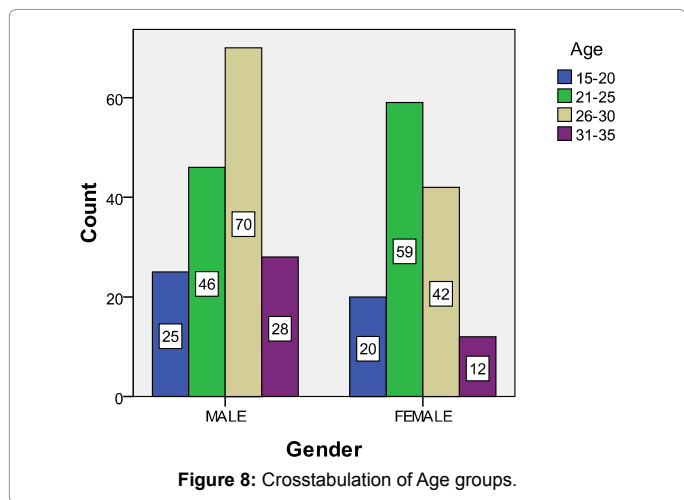


Figure 8: Crosstabulation of Age groups.

Gender * Age Cross tabulation		Age				Total
		15-20	21-25	26-30	31-35	
Gender MALE		25	46	70	28	169
FEMALE		20	59	42	12	133
Total		45	105	112	40	302

Table 7: Crosstabulation of Age groups.

	N	Mean	Std. Deviation
Channel	302	1.9512	1.82839
Security Perception	302	3.5841	0.71918
Perceived Risk	302	3.6265	0.38419
Prior Internet Knowledge	302	3.128	0.554
Information of Online	302	3.9305	0.57378
Adoption of Online Banking	302	3.9296	0.5568

Table 8: Table representing the Descriptive Statistics.

Correlations	Channel	Security Perception	Perceived Risk	Prior Internet Knowledge	Information of Online	Adoption of Online Banking
Channel Convenience	302	.155	0.083	<b>0.041</b>	0.095	0.092
Security Perception		1	0.103	0.1	.166	.176
Perceived Risk			1	0.002	.303	.236
Prior Internet Knowledge				1	.118	0.085
Information of Online Banking					1	<b>.699</b>
Adoption of Online Banking						1

Table 9: Bivariate Analysis of Online Banking.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.702 <sup>a</sup>	0.493	0.484	0.39995

a. Predictors: (Constant), Information of Online, Channel, Prior Internet Knowledge, Security Perception, Perceived Risk

Table 10: Regression of model Summary.

respondents in which the female respondents were 16 in high school, 15 from college, 55 from graduation and 47 from masters, while the male respondents there were 75 from graduation (Table 6).

**Interpretation:** Figure 8 depict that there were 302 respondents of which female respondents were 59 from 21-25, 42 female respondents were from 26-30 age group, 12 were from third age group of 31-35 and 20 were from the 15-20 age group. While 25,46,70,28 male respondents were from the age group of 15-20, 21-25, 26-30, 31-35 respectively (Table 7).

**Descriptive statistics**

**Interpretation:** The Table 8 provides the important and relevant information, and i have made a benchmark for mean which is 3, so if the mean of the variables will be less than 3 it will be considered towards the disagreed side, while when the mean of the variables will greater the benchmarks of 3 will be considered towards the agreed side, as the it is showed in the above given table that the channel convenience variable has less mean of 1.95 which shows people of Hyderabad are not agree with adopting the online banking due to the channel convenience.

**Bivariate analysis**

**Interpretation:** Table 9 demonstrate that dependent variable Adoption of Online Banking has valuable relationship of .699 with Information of online banking variable and results shows that there is greater relationship of .699 between adoptions of online banking with information of online banking variable. In above table result shows that there is minimum relationship between the information of online banking with prior internet knowledge variable.

**Regression**

a. Predictors: (Constant), Information of Online, Channel, Prior Internet Knowledge, Security Perception, Perceived Risk

**Interpretation:** The Table 10 shows that, there is insignificant impact of independent variables on dependent variable because the R<sup>2</sup> is .484 which is less than .6 which is the benchmark. The R value in the table shows the correlation value among the dependent variable Adoption of Online Banking) and independent variables (Information of Online, Channel, Prior Internet Knowledge, Security Perception, Perceived Risk).

**Hypothesis testing**

**H1:** There is a positive relationship between Channel Convenience and Adoption of e-banking.



**H01:** There is no positive relationship between Channel Convenience and Adoption of e-banking.

**H1:** There is positive relationship between Channel Conveniences with adoption of online banking, because it has .092 or 9.2% correlation, so alternative hypothesis is accepted proved in Table 9.

**H2:** There is a positive relationship between Information on online banking and adoption of e-banking.

**H02:** There is a negative relationship between Information on online banking and adoption of e-banking.

**H2:** There is a positive relationship between information on online banking with adoption of e-banking which is .699\*\* or 69.9%, so that means alternative hypothesis is accepted, proved in the Table 9.

**H3:** There is no positive relationship between perceived risk and adoption of e-banking.

**H03:** There is positive relationship between perceived risk and adoption of e-banking.

There is positive relationship between perceived risk and adoption of e-banking which is .236 or 23.6%, so that means alternative hypothesis is accepted proved in the Table 9.

**H4:** There is a positive relationship between prior internet knowledge and adoption of e-banking.

**H04:** There is negative relationship between prior internet knowledge and adoption of e-banking.

**H4:** There is positive relationship between prior internet knowledge and adoption of e-banking which is .085, so that means alternative hypothesis is accepted proved in the Table 9.

**H05:** There is no difference between the adoption of online banking in males and females.

**H5a:** There is a difference between the adoption of online banking in males and females.

There is difference between male and female in adopting the online banking service in Hyderabad, because it is proved in the Table 2 that shows the number of respondent were in female were 133 or 44%, while male respondents were dominant with 169 or 56%, so it shows that alternative hypothesis is accepted.

## Key Findings and Recommendations

- From this research report we come to know that channel convenience, security perception, and perceived risk, prior knowledge about internet and information about the online banking which have impact on adoption of online banking.
- Information on online banking has the highest impact on the adoption of online banking that is 0.699.
- Channel Convenience has a correlation of 0.092.
- Perceived risk has correlation of 0.236.
- Security Perception has correlation of .176.
- Prior Internet Knowledge has correlation of .085.
- But the overall impact of these shows that information on online banking has the highest correlation among all these.
- The reliability of the questionnaire is 0.769 which is good.

## Conclusion

As we know that there are many factors which could influence on the adoption of online banking. This research is based on five important factors that are Channel Convenience, Perceived Risk, Security Perception, and Prior Internet knowledge, Information about online banking. Today in era of Information technology every business wants to deliver their products and service via various electronic channels. This research is conducted to find out the influence of Channel Convenience, Information on online banking, Perceived Risk, Prior internet Knowledge, Security Perception (Independent variables) upon Online Banking Service Adoption (Dependant Variable). On the basis of result we came to the conclusion that information about the online banking has the positive influence as well positive correlation with adoption of online banking in Hyderabad.

## Future Research

In this research we had taken the five variables those are Channel Convenience, Information on online banking, Perceived Risk, Prior internet Knowledge, Security Perception (Independent variables) upon Adoption of Online Banking Service (Dependant Variable).on the basis of model summary result we are recommending that in future research should take into account different variable which we had not taken into account in this research.

## References

1. Burr W (1996) Wie Information stechnkdie Bank organisation verändern Könnte, Bank and Market 11: 28-31.
2. Jyväskylä (2002) Studies in business and economics 18, heikki karjaluoto electronic banking in finland, university of jyväskylä.
3. Karjaluoto H, Mattila M, Pentto T (2002) Factors underlying attitude formation towards online banking in Finland. International Journal of Bank Marketing, 20(6): 261-72.
4. Ahmed A (2006) Policies and Regulations for Expanding e-banking to the Poor, The First Micro Finance Bank Ltd 24 (1): 1-8.
5. Sathye M (1999) Adoption of Internet banking by Australian consumers: An empirical investigation, International Journal of Bank Marketing 17(7): 324-34.
6. Bauer RA (1960) Consumer behaviour as risk taking, In Hancock, R.F. (Ed), Proceedings of the 43<sup>rd</sup> Conference of the American Marketing Association, American Marketing Association, Chicago, IL pp. 389-98.
7. Al-Ashban AA, Burney MA (2001) Customer adoption of tele-banking technology: the case of Saudi Arabia, International Journal of Bank Marketing 19(5): 191-200.
8. Akinci S, Aksoy S, Atilgan E (2004) Adoption of internet banking among sophisticated consumer segments in an advanced developing country, International Journal of Bank Marketing 22(3): 212-232.
9. Mattila M, Karjaluoto H, Pentto T (2003) Internet banking adoption among mature customers: Early majority or laggards?, Journal of Services Marketing 17: 514-28.
10. Davis FD (1989) Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology, MIS Quarterly 13: 319-340.
11. Davis FD (1989) Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology, MIS Quarterly, Sept, 319-340.
12. Mayer RC, Schoorman FD, Davis JH (1995) An integrative model of organizational trust, Academy of Management, The Academy of Management Review 20: 709-734.
13. Brown LG (1990) Convenience in services marketing, Journal of Service Marketing 4: 53-59.
14. Black NJ, Lockett A, Winklhofer H, McKechnie S (2002) Modelling consumer choice of distribution channels: An illustration from financial services. The International Journal of Bank Marketing 20: 161-173.

15. Gerrard P, Cunningham JB (2003) The diffusion of Internet banking among Singapore consumers. *International Journal of Bank Marketing* 21: 16-28.
16. Liao Z, Cheung MT (2002) Internet-based e-banking and consumer attitudes: An empirical study. *Information and Management* 39: 283-95.
17. Polatoglu VN, Ekin S (2001) An empirical investigation of the Turkish consumers' acceptance of internet banking services. *International Journal of Bank Marketing* 19: 156-65.
18. Pavlou PA (2003) Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *International Journal of Electronic Commerce* 7(3): 69-103.
19. Jarvenpaa S, Tractinsky N (1999) Consumer Trust in an Internet Store: A Cross-Cultural Validation. *Journal of Computer Mediated Communication* 5: 1-35.
20. Chan SC, Lu M (2004) Understanding Internet Banking Adoption and Use Behavior: A Hong Kong Perspective. *Journal of Global Information Management* 12(3): 21-43.
21. Littler D, Melanthiou D (2006) Consumer perceptions of risk and uncertainty and the implications for behavior towards innovative retail services: The case of internet banking. *Journal of Retailing and Consumer Services* 13: 431-443.
22. Cunningham L, Gerlach J, Harper M (2005) Perceived risk and e-banking services: An analysis from the perspective of the consumer. *Journal of Financial Services Marketing* 10(2): 165-178.
23. Salam AF, Rao HR, Pegels CC (2003) Consumer-perceived risk in e-commerce transactions. *Communications of the ACM* 46(12): 325-331.
24. Schlosser AE, White TB, Lloyd SM (2006) Converting web site visitors into buyers: How web site investment increases consumer trusting beliefs and online purchase intentions. *Journal of Marketing* 70: 133-148.
25. Koufaris M, Hampton-Sosa W (2004) The Development of Initial Trust in an Online Company by New Customers. *Information and Management* 41(3): 377-397.