

# Internet Banking-Measuring Users' Satisfaction in Haryana

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## Abstract:

With reference to the Indian economy, the banking sector plays a very crucial role by acting as a changing agent contributing to the socio- economic development of the country.. Financial liberalisation has opened the doors for many new foreign banks along with new financial institutions. With them comes new technological innovations and aspects of providing services Banking Industry views Internet banking as new and improved way of conducting banking transactions in a secure way. Internet banking offers a wide range of services and facilities. Internet is a significant tool used for communication in today's technology driven competitive business scenario in Haryana. The paper intends to analyse the influence of internet banking services on the level of satisfaction of the customers in Haryana. Customer satisfaction is a key element that attracts customer retention, increased loyalty and post -purchase intention of the customer. It is crucial for all business organisations to meet the expectations of the customers thereby leading to customer satisfaction. Service Quality is stated as a comparing the expectations with the performance.. Each banking offers an array of services to its customers. Services can neither be standardised nor can be compared due its intangible nature. Nevertheless, with the introduction of new technology , e-banking has grown rapidly, The banks providing Internet banking services need to take into consideration the needs and expectations of its customers. It is important to carefully observe all the internet banking services performed by banks so as to regularly and constantly measure the satisfaction level of the customers with respect to Internet banking services. With this motive Satisfaction level of the Customers is examined by taking the help of various service quality dimensions. The most popularly used model for evaluating the quality of service is the SERVQUAL model developed by (A. Parasuraman, V. Zeithaml and L. Berry,1988) .SERVQUAL model is the most commonly used instrument for confirmatory factor analysis.

**Keywords:** Customer Satisfaction, SERVQUAL, Service Quality ,e-banking.

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## I INTRODUCTION

With reference to the Indian economy, the banking sector plays a very crucial role by acting as a changing agent contributing to the socio- economic development of the country. The banking Industry has observed a change with respect to the financial reforms from the year 1991. Financial

liberalisation has opened the doors for many new foreign banks along with new financial institutions. With them comes new technological innovations and aspects of providing services. In the current scenario, each and every bank is making an attempt to provide new products and services to its customers. However, for the banks to excel from their competitors , there was a need to

reframe their strategies and resort to new technological ways of conducting business, in order to provide improved and better services to its customers. The presence of technology is now seen in all sectors of the economy. Banking Industry views Internet banking as new and improved way of conducting banking transactions in a secure way . It can also be stated known as "Online banking" or "Web based banking" With the introduction of new technology , e-banking has grown rapidly, there has been significant improvement in the quality of services related to Internet banking in comparison with the traditional services provided by banks. There has been a remarkable change in the way of delivering services to its customers

### **Service Quality and Customer Satisfaction ( SERVQUAL MODEL) (29)**

To analyse the influence of internet banking services on the level of satisfaction of the customers is yet another objective of the study.

- **Customer Satisfaction**

Customer Satisfaction has been a core area which has received considerable attention by many researchers in the last few decades. It is a measure as to how products and services meet or exceed expectations of the customer. Customer Satisfaction plays a crucial role in today's business scenario. It not only indicates customer loyalty, reduces agitation of the customers, contributes an increase in the revenue but also helps attract new customers towards the business. Customer satisfaction is a key element that attracts customer retention,

increased loyalty and post -purchase intention of the customer. It is crucial for all

business organisations to meet the expectations of the customers thereby leading to customer satisfaction

- **Service Quality**

Service Quality is stated as a comparing the expectations with the performance. As defined by (29)the service quality is dependent on the perception as well as expectation of the customers. Researchers (29,30) later developed the definition of service quality stating it as complete estimation relating to a particular service based organisation which actually is marked by the comparison of the actual performance of the firm with that of general expected performance the customers have in context with the performance of similar firms belonging to a particular industry" . Thus it should be noted cautiously that there are two significant attributes of service quality. The first one is that quality is not defined by the product seller, rather it is defined by the customer. and secondly the comparison made by the customers in their expectations to their perception of how well the service is performed.

- **Service Quality and Banking Sector**

A wide variety of services are provided by the banking sector namely retail banking, investment banking, internet banking etc. Each banking offers an array of services to its customers. Services can neither be standardised nor can be compared due its intangible nature. Nevertheless, with the introduction of new technology , e-banking has grown rapidly, there has been significant improvement in the quality of services related to Internet banking in comparison with the traditional services provided by banks. There has been a remarkable change

in the way of delivering services to its customers.(29)

- **Service Quality and Electronic Banking**

In the modern day technology driven world the needs and expectations of the customers are continuously changing. Banking is no more looked upon as a business that deals with money transaction only, rather it is a far more Industry that also provides information relating to financial aspects of transaction (Padwal)(31).Internet banking in current scenario is playing a crucial role in providing cost effective services to its customers. Research work(32) Customer satisfaction has improved manifold due to Internet banking as Internet banking offers customers with a variety of benefits, Thus , Internet banking has become a widely used for performing banking transactions and also catering to the aspect of customer satisfaction.

### 1.6.1 SERVQUAL SCALE

The banks providing Internet banking services need to take into consideration the needs and expectations of its customers. It is important to carefully observe all the internet banking services performed by banks so as to regularly and constantly measure the satisfaction level of the customers with respect to Internet banking services. With this motive Satisfaction level of the Customers is examined by taking the help of various service quality dimensions. The theory related to e-service quality has been originated from the concept of service quality. (28,29) stated service quality as a complete estimation related to particular service based organisation which actually is marked by the comparison of the actual performance of the firm with that of

general expected performance the customers have in context with the performance of similar firms belonging to a particular industry. The most popularly used model for evaluating the quality of service is the SERVQUAL model developed by (A. Parasuraman, V. Zeithaml and L. Berry,1988) (29).It initially comprised of 10 dimensions namely reliability, security, responsiveness, tangibility, security , credibility, access, courtesy, communication, competence and understanding the customer. All these dimensions were used to measure service quality. Later in the year 1988 these 10 dimensions were reduced to 5 namely RATER- Responsiveness , Assurance Tangibility, Empathy, Reliability.

- **Responsiveness:** It can be defined as the readiness of the employees to provide service. It can also be stated as the capability to help users and provide them quick and prompt services in accordance with their needs. Speed is considered to a most significant aspect to be considered by the customers when delivering services.
- **Assurance:** It is concerned with the politeness, consideration, knowledge and understanding of the employees in accordance with the needs and hopes the customers have along with its capability to communicate faith and confidence among its customers.
- **Tangibility:** It deals with the physical aspect of the services being communicated along with the physical appearance of the banking staff and the equipments being used.
- **Empathy:** It is the competence displayed by the executives and staff of the bank in providing personalised attention to its customers .It focuses on totally being

thoughtful with the needs and hopes of the customers.(29)

- **Reliability:** It conveys the capability of the banking staff to deliver services as promised to its customers. Reliability also takes into account dependability and regularity of performance when delivering services to its customers. Van Gorder (33) stated that reliability is the one of the most vital attribute for customers in the estimation of service quality of the most vital attribute for customers in the estimation of service quality attribute for customers in the estimation of service quality.

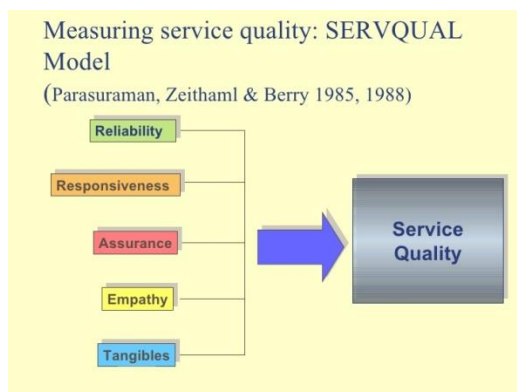


Figure 1.6: SERVQUAL Model

Source- (SERVQUAL model, Parsuraman, Zeithaml & Beery 1985,1988)

SERVQUAL model is the most commonly used instrument for confirmatory factor analysis. It has proved to be a cost-conscious model and has been used in a number of service oriented organisations for measuring service quality including banks. However, researchers have expressed the need for customization of SERVQUAL catering to specific service areas

## II REVIEW OF LITERATURE

From traditional body of literature **Parasuraman et al. (1988)** developed a model named as the SERVQUAL model.

The SERVQUAL model consisted of five dimensions. These five dimensions were measured using the SERVQUAL scale. The SERVQUAL scale consisted of 22 items. Responsiveness, Assurance, Tangibility, Empathy, Reliability( RATER) were the five dimensions of SERVQUAL model. In accordance with the specifications of a particular area these dimensions have been suitably modified. **Reichheld and Sasser, (1990)** in their study observed certain factors such as the value given to customers, free of cost transfer of funds, nominal transaction fees etc are certain critical factors having a major effect on the satisfaction of the customers towards online banking **Jun and Cai (2001)** in their study on internet banking recognised 17 dimensions of service quality namely responsiveness, reliability, courtesy, access competence, credibility, communication, understanding the customer, collaboration, continuous improvement, context, accuracy, ease of use, timeliness, aesthetics, security and website design. The study analysed that website design, courtesy, responsiveness ease of use, access and reliability were significant in the context of Internet banking **Tomark and Ponsonnealt (2001)** conducted a study on electronic banking and its usage . . The results of the study concluded that speed, convenience and ease of use are factors that are associated with the technology as well as human based process of service delivery. **Cox and Dale (2001)** in their study made an attempt to measure the dimensions of service quality related to the e-commerce environment the study highlights determinants such as Responsiveness, Communication, Accessibility, credibility, security, reliability appearance, functionality, understanding the customer and integrity as critical

determinants affecting service quality as well as web site service quality. **Broderick and Vachirapornpuk (2002)** conducted a study on the concept of service quality in Internet banking and projected a service quality model comprising of five dimensions. **Gefen(2002)** made an attempt to study the e-commerce environment The results of the study highlighted that better service quality and increased trust in the service provider were two significant factors that contributed to an increase in Customer loyalty in e-commerce Avinandan & Prithwiraj, 2003 conducted an empirical study that highlighted the significance of Trust as the one of the most important factor affecting Internet banking services. **Cronin 2003** in his study analysed in the study that e-service quality has the capability of delivering strategic benefits along with the potential of enhancing operational efficiency and profitability. **White& Nteli(2004)** in his study observed that the respondents considered Security as the most crucial factor affecting internet banking service quality. **Awamleh& Fernandes (2005)** conducted a study in United Arab Emirates . The results concluded that security of transactions and convenience in executing transactions have a tremendous affect on the customers with respect to their satisfaction towards Internet banking. **Mobarek (2007)** conducted a study on E-banking practices and customer satisfaction in the city of Botswana in Southern Africa. The research focussed on the aspect that the both online and off-line services should be made available by the banks to its customers, at the best possible prices **Saravana Kumar (2009)** conducted a study on the analysis on customer satisfaction on E-banking and services. The studied

acknowledged five major dimensions namely reliability, tangibility, responsiveness, security, technology and accessibility as key factors affecting the level of customer satisfaction **Swaminathan, J and Ananth, A. (2010)** made an attempt to study Customer satisfaction with respect to e-banking The results of the study concluded that satisfaction of the customer is greatly influenced by responsiveness convenience, awareness. **Kumbhar (2011)** conducted an invstigation in some selected Indian Banks. The study takes into consideration certain significant factors like service quality, brand perception, and perceived value having an impact on customer satisfaction in the e-banking service settings.

### III Objective of the study

To measure the impact of internet banking services on the satisfaction level of customers

## IV RESEARCH METHODOLOGY

### Scope of the study

The scope of the study is limited only to the state of . Haryana lies in Northern part of India. The state is segregated into four divisions for administrative purposes: Ambala, Rohtak, Gurgaon, Hissar. For the purpose of this study , participants were selected from urban areas of Haryana from all spheres of the society such as private sector employee, government sector employee, business man, students, and housewife having age above of 18 years.

### Data collection procedure

Data have been collected from both - Primary sources and Secondary sources.

Primary Data- Survey based on questionnaire is used as a data collection tool.. The main aim of the study is to measure the impact of internet banking services on the satisfaction level of customers

Haryana region was segregated into four different strata- North, South, East, and West. Each strata comprised of five districts each. Sample was collected from the customers of the banks in all four strata. The source of data for this research study was the responses given by participants on the questionnaire sheet. The respondents were made to submit their response. All the participants were requested to fill questionnaire at their convenient time and return back. Total number of distributed questionnaires were 700 Only 599 are complete and taken into consideration..This number of sample collected is reasonably sufficient for the purpose of this study.

### **Secondary sources**

Various secondary sources of data collection has been used in the study which includes several research articles books, journals and websites

### **Drafting of Research Instrument**

The Questionnaire was developed after an extensive review of literature. The questionnaire was drafted in a structured manner. To measure the impact of internet banking services on the satisfaction level of customers SERVQUAL Model is being used. A questionnaire was prepared from the point of view of the customers taking into consideration modified version of SERVQUAL model developed by (A. Parasuraman, V. Zeithaml and L. Berry,1988) .SERVQUAL model is the

most commonly used instrument for confirmatory factor analysis. All the items were measured on the five-point Likert scale from 5 (strongly agree) to 1 (strongly disagree). To achieve this objective factor analysis is applied to identify the constructs affecting the satisfaction of Internet banking and then the impact of these constructs is analysed on the overall satisfaction of the customer using Linear Regression For this purpose, the chapter is segregated into two sections. The first section explains the results of Factor analysis test applied to identify the factors affecting the level of satisfaction of the respondents towards Internet banking. The next section of the chapter describes results of regression to study the impact of the factors extracted in factor analysis on Customer Satisfaction. Regression emphasizes on the association between a dependent variable (Customer Satisfaction) and one or more Independent variable (factors affecting customer satisfaction extracted using factor analysis). Its purpose is to understand as to which independent variables among the ones taken for the study are related with the dependent variable.

### **V Techniques of Factor Analysis**

The tables below show the results of factor analysis done on the 37 statements of customer satisfaction in the questionnaire. Before applying a factor analysis, it is important to check the sample adequacy and to identify the correlation among the variable statements. For examining the adequacy of sample, the KMO Test is used. Barlett Test of Sphericity is used to examine the nature of correlation among the variables.

Table 8.1 Results of KMO and Bartlett's Test for Statements of Satisfaction

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.848
Bartlett's Test of Sphericity	Approx. Chi-Square	167.4
	Df	528
	Sig.	.000

Source: Compiled by the researcher using spss

From the above table, the KMO measure of sample adequacy is 0.848 which is higher than the commonly accepted 0.60.

Therefore, sample size for the factor analysis for the data is appropriate.

The first output table of Factor analysis will show the eigen values of the variables. Eigen value is the sum of squared values of factor loading relating to a factor. It shows the total variance explained by each factor. It indicates relative importance of each factor in accounting for a particular set of variable being analyses. (Gupta, Research Methodolgy,).The number of components whose eigen value is more than one can become an independent factor and thus the table will help in identifying the no of factors formed in the study

Table 8.2: Results of Eigen values for statements of Satisfaction

Component	Initial Eigenvalues		
	Total	% of	Cumulative
Internet banking handles customer information and details	<b>13.579</b>	<b>41.148</b>	<b>41.148</b>
Internet Banking delivers services at the promised time	<b>2.450</b>	<b>7.424</b>	<b>48.571</b>
I can completely depend on the bank for handling my	<b>1.954</b>	<b>5.921</b>	<b>54.493</b>
Bank's customer service representatives are courteous in	<b>1.602</b>	<b>4.856</b>	<b>59.349</b>
Bank's customer service representatives gives individual	<b>1.359</b>	<b>4.117</b>	<b>63.466</b>
Bank's customer service representatives takes care of the	<b>1.280</b>	<b>3.879</b>	<b>67.345</b>
Bank's customer service representatives provides advice	<b>1.134</b>	<b>3.436</b>	<b>70.782</b>
Services of Internet Banking are quick and prompt	<b>1.070</b>	<b>3.243</b>	<b>74.025</b>
Banks takes into consideration my complaints about Internet	<b>1.028</b>	<b>3.116</b>	<b>77.141</b>
Internet Banking services are up-to my expectations	.752	2.277	79.418
Use of Internet Banking minimizes my in-convenience while	.728	2.206	81.624
In Internet banking, customer service representative readily	.636	1.927	83.551
Internet Banking Website provides step by step information	.561	1.700	85.251
Banks take initiative in educating its customers, regarding the	.522	1.583	86.834
Banks make use of advanced equipment and technology	.455	1.378	88.212
More physical facilities are provided to the customers	.437	1.323	89.536
Physical appearance of the services is visually appealing.	.428	1.296	90.832
Up-gradation of content on the bank's website is done as and	.392	1.188	92.020
I trust my internet banking website.	.332	1.006	93.026
I trust the benefit provided by the bank through internet	.309	.937	93.963
Internet banking website provides information which is honest	.276	.837	94.800
Internet Banking system keeps all promises and commitments	.252	.762	95.562
Using Internet Banking improves my Self-Image.	.240	.728	96.290

Using Internet Banking improves my Social Acceptance	.201	.610	96.899
Internet Banking system ensures safety of banking	.189	.572	97.471
Only authorised person can access own account through	.167	.505	97.977
Banks will never misuse my financial information placed on	.141	.428	98.404
Internet Banking protects personal information on their	.119	.360	98.764
Banks website is safe for fund transfer using the Internet..	.109	.332	99.096
Secrecy of Credit card information is maintained	.105	.319	99.415
User's can easily access information and services from the	.083	.251	99.666
Issue of downloading speed is duly considered by the Bank.	.062	.189	99.855
Finding a piece of content or information on the web can be	.048	.145	100.000

Source: Compiled by the researcher using spss

The result in the table above shows that out of 33 components, only 9 have their eigen values greater than one. The total variance explained by these nine factors taken together is 77 percent which represents these factors as representative of factors affecting customer satisfaction. It means that the

factors explain 77% percent variation in the dependent variable. The table below shows the results of Rotated Component Matrix. The value in each cell represents communality. Communality ( $h^2$ ) indicates how much each variable is accounted for by the underlying factor taken together. The amount of Variance a variable shares with all the other variables being considered.(146)

Table 8.3: Community Values for statements of Satisfaction

	Component								
	F1	F2	F3	F4	F5	F6	F7	F8	F9
INTERNET BANKING IMPROVES MY SELF IMAGE	.758	.271	.311	.126	.110	.059	.071	.177	.024
UP-GRADATION OF THE CONTENT ON BANKS WEBSITE IS DONE WHEN REQUIRED	.695	.209	.121	.209	.007	.309	.210	.034	.065
INTERNET BANKING IMPROVES SOCIAL ACCEPTANCE AMONG PEER GROUPS	.640	.080	.047	.213	.375	.003	.125	.259	.267
ENSURES SAFETY OF BANKING TRANSACTIONS	.604	.393	.350	.129	.227	.007	.043	.086	.049
INTERNET BANKING SERVICES ARE UPTO MY EXPECTATIONS	.551	.326	.126	.529	.010	.208	.075	.103	.091
I TRUST THE BENEFIT PROVIDED BY BANK THROUGH INTERNET BANKING	.486	.281	.005	.307	.126	.425	.457	.018	.161
INTERNET BANKING WEBSITE PROVIDES STEP BY STEP INFO FOR USING	.089	.734	.008	.169	.108	.299	.225	.079	.047



INTERNET BANKING WEBSITE PROVIDES INFORMATION WHICH IS HONEST AND TRUSTWORTHY	.245	.620	.131	-.038	.200	.326	.144	.240	.123
COMPLETELY DEPEND UPON BANK FOR HANDLING PROBLEMS OG INT BANKING	.355	.619	.135	-.015	-.011	-.007	.079	-.207	.381
HANDLES CUSTOMER INFORMATION SAFELY AAND ERROR FREE	.141	.578	.350	.410	.098	-.011	.045	.097	.054
SERVICE OF INTERNET BANKING ARE QUICK AND PROMPT	.454	.554	.004	.134	.197	.088	.301	.058	-.358
I TRUST MY INTERNET BANKING WEBSITE	.413	.441	.276	.289	.171	.281	.290	.097	.073
BANKS TAKES INTO CONSIDERATION MY COMPLAINTS ABOUT INTERNET BANKING	.086	.434	.405	.158	.327	.297	.115	.139	.004
MORE PHYSICAL FACILITIES ARE PROVIDED TO ITS CUSTOMERS	.171	.199	.771	.020	-.240	.106	-.034	.168	.135
PHYSICAL APPEARANCE OF THE SERVICES ARE VISUALLY APPEALING	.042	.249	.734	.147	.222	.207	.241	-.019	.050
CUSTOMER SERVICE REPRESENTATIVES REAADILY N ACCURTELY RESPOND TO ITS CUSTOMERS	.322	-.155	.649	.163	.275	.074	.263	.196	.179
BANKS CUSTOMER SERVICE REPRESENTATIVES PROVIDES ADVICES ON FINANCIAL MATTERS	.145	.032	.028	.668	.424	.129	.223	.219	.222
BANKS MAKE USE OF AADVANCE EQUIPMENT AND TECHNOLOGY	.319	.420	.274	.637	-.099	.063	.132	.168	-.080
BANKS TAKE INITIATIVE IN EDUCATING ITS CUSTOMERS	.179	-.050	.387	.563	.327	.113	.202	.094	.149
BANKS CUSTOMERS SERVICE REPRESENTATIVES TAKE CARE OF SPECIFIC NEEDS	.364	.331	-.093	.559	.439	.153	-.008	.020	.182
BANKS CUSTOMER SERVICE GIVES INDIVIDUAL ATTENTION TO CUSTOMERS	.017	.153	.160	.214	.799	.151	-.030	.205	-.049
BANKS CUSTOMER SERVICE REPRESENTATIVES-COURTEOUS	.350	-.045	-.031	.025	.704	.104	.260	.096	.229
DELIVERS SRVICE AT THE PROMISED TIME	.103	.241	.163	-.004	.188	.828	.024	-.040	.003
USER'S CAN EASILY ACCESS INFORMATION AND SERVICES FROM BANK'S WEBSITE	.082	.015	.402	.319	-.071	.576	.186	.333	.089

USE OF INTERNET BANKING MINIMISES INCONVENIENCE	.398	.353	.102	.157	.285	.441	.270	.197	.071
ONLY AUTHORISED PERSON CAN ACCESS OWN ACCOUNT THROUGH INTERNET BANKING	.045	.339	.190	.061	.023	.101	.803	.197	.127
INTERNET BANKING SYSTEM KEEPS PROMISES AND COMMITMENTS	.308	.110	.180	.129	.362	.409	.576	.102	.111
SECURITY OF THE CREDIT CARD INFORMATION IS MAINTAINED	.312	.236	.304	.370	.184	.058	.504	.261	.059
BANKS WILL NEVER MISUSE MY FINANCIAL INFORMATION PLACED ON INTERNET BANKING	.042	.162	.241	.012	.247	.030	.038	.852	.080
PROTECTS PERSONAL INFORMATION ON INTERNET BANKING PORTAL	.237	.091	.113	.299	.020	.000	.380	.724	.150
BANKS WEBSITE SAFE FOR FUND TRANSFER USING THE INTERNET	.285	.239	.059	.219	.204	.455	.091	.596	.098
ISSUE OF DOWNLOADING SPEED IS DULY CONSIDERED	.059	.068	.102	.055	.114	.090	.029	.130	.851
FINDING A PIECE OF CONTENT OR INFORMATION ON THE WEB CAN BE EASILY DONE	.193	.203	.223	.364	.066	.010	.281	.129	.612

Source: Compiled by the researcher using spss

After careful investigation of the communalities in the various factors, following factors have been extracted and named on the basis of statements they are composed of.

**Factor 1 (Reliability)** - The first factor is designed as "Reliability" on the basis of the variables loaded. In this category 6 variables are important. It indicates that among the scale Internet banking improves my self image(0.758), Up-gradation of the content on Bank's website is done regularly(.695), Internet banking improves social acceptance among peer groups(.640) Ensures safety of Banking transactions(.604), Internet banking services

are up-to my expectations(.551), I trust the benefit provided by bank through Internet Banking(.486) are important attributes that fall under this category. Thus, "Reliability" is identified as an important factor to influence the customer's satisfaction towards the Internet banking services.

**Factor 2 (Website Efficiency)** - The second factor is designed as "Website Efficiency" on the basis of the variables loaded. In this category 7 variables are important. It indicates that among the scale Internet banking website provides step by step information for using its services of Internet banking (.734), Internet banking provides information which is honest and trustworthy(.620), Completely depend upon bank for handling problems of internet banking(.619), Handles customer

information safely and error free(.578),Service of Internet banking are quick and prompt(.554), I trust my Internet banking website(.441),Banks take into consideration my complaints about Internet Banking(.434) are important attributes that fall under this category. Thus " Web-efficiency " is identified as an important factor to influence the customer's satisfaction towards Internet banking services.

**Factor 3(Tangibility)** - The third factor is designed as " Tangibility" on the basis of the variables loaded in this category. In this category 3 variables are important. It indicates that among the scale More physical facilities are provided to its customers(.771), Physical appearance of the services are visually appealing(.734), Customer service representatives readily and accurately respond to its customers(.649)are important attributes that fall under this category. Thus " Tangibility" is identified as an important factor to influence customer's satisfaction towards Internet banking services.

**Factor 4( Responsiveness)** - The fourth factor is designed as " Responsiveness" on the basis of the variables loaded in this category. In this category 4 variables are important. It indicates that among the scale Banks customer service representatives provides advices on financial matters(.668) Banks make use of advance equipment and technology(.637) Banks take initiative in educating its customers( .559), Banks customer service representatives take care of specific needs of customers(.559 )are important attributes that fall under this category. Thus " Responsiveness" is identified as an important factor to influence

customer's satisfaction towards Internet banking.

**Factor 5 (Empathy)** - The fifth factor is designed as "Empathy" on the basis of the variables loaded in this category . In this category 2 variables are important. It indicates that among the scale banks customer service representatives gives individual attention to its customers(.779), Banks customer service representatives are courteous(.704)are important attributes that fall under this category. Thus " Empathy" is identified as an important factor to influence customer's satisfaction towards Internet banking.

**Factor 6 (Promptness)** - The sixth factor is designed as "Promptness" on the basis of the variables loaded in this category. In this category 3 variables are important . It indicates that among the scale Delivers service at the promised time(.828), Users can easily access information and services from bank's website( .576) Use of Internet banking minimises inconvenience(.441 )are important attributes that fall under this category. Thus " Promptness" is identified as an important factor to influence customer's satisfaction towards Internet banking.

**Factor 7(Security)** - The seventh factor is designed as "Security" on the basis of the variables loaded in this category. In this category 3 variables are important. It indicates that among the scale Only authorised person can access own account through Internet banking(.803),Internet banking system keeps promises and commitments(.576),Secrecy of the credit card information is maintained(.504) are important attributes that fall under this category. Thus," Security" is identified as an

important factor to influence customer's satisfaction towards Internet Banking.

**Factor 8 (Trust)** -The eighth factor is designed as "Trust" on the basis of the variables loaded in this category. In this category 3 variables are important. It indicates that among the scale Bank will never misuse my financial information placed on Internet Banking portal(.852),Internet banking protects personal information on their Internet Banking portal(.724),Bank's website is safe for fund transfer using the Internet(.596)are important attributes that fall under this category. Thus "Trust" is identified as an important factor to influence customer's satisfaction towards Internet banking.

**Factor 9 (Accessibility)** - The ninth factor is designed as "Accessibility" on the basis of the variables loaded in this category. In this category 2 variables are important. It indicates that among the scale Issue of downloading speed is duly considered(.851), Finding a piece of content or information on the web can be easily done(.612) are important attributes that fall under this category. Thus "Accessibility" is identified as an important factor to influence customer's satisfaction towards Internet banking.

## 8.2 Results of Regression Analysis

In the next step for achieving the similar objective, Regression analysis is applied to determine the relationship between the Dependent variable (Customer satisfaction towards Internet Banking) and Independent variables (Factors). The independent variables include Reliability, Website efficiency, Tangibility, Responsiveness, Empathy, Promptness, Security, Trust,

Accessibility. These variables have been extracted in the first section of the chapter using Factor analysis. The results and analysis of Regression are depicted below in the table:

The following equation of Regression has been used in the study:

Customer Satisfaction (Dependent Variable) = Constant + Coefficient 1(Reliability)+ Coefficient 2(Website Efficiency)+ Coefficient 3(Tangibility)+ Coefficient 4 (Responsiveness)+ Coefficient 5(Empathy)+ Coefficient 6(Promptness)+ Coefficient 7(Security)+ Coefficient 8(Trust) +Coefficient 9(Accessibility)

$$CS = \alpha + \beta_1 F_1 + \beta_2 F_2 + \beta_3 F_3 + \beta_4 F_4 + \beta_5 F_5 + \beta_6 F_6 + \beta_7 F_7 + \beta_8 F_8 + \beta_9 F_9 + e$$

CS= Customer Satisfaction towards Internet banking services

F<sub>1</sub> = Reliability

F<sub>2</sub>= Website Efficiency

F<sub>3</sub> = Tangibility

F<sub>4</sub> = Responsiveness

F<sub>5</sub> = Empathy

F<sub>6</sub> = Promptness

F<sub>7</sub> = Security

F<sub>8</sub> = Trust

F<sub>9</sub> = Accessibility

$\alpha$  = constant

$\beta$  = Coefficients of the dependent variables

e =Error term.

The table 8.4 provides the value of R and R<sup>2</sup>. These values indicates the variation

explained by the independent variable in the dependent variable.

Table 8.4: Results of Linear Regression.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.877	.769	.765	.444

Source: Compiled by the researcher using spss

The table above shows the capability of the factors used in the regression to predict the customer satisfaction. The R square value of .765 indicates that 76% of the variation in the Customer Satisfaction is explained by the nine factors used in the model. Thus, the model is found to be fit and can be further used for regression. After examining the fitness of the model. The test of ANOVA is used to determine the extent of correlation between the dependent (Customer Satisfaction) and Independent Variables (Factors).

The test will have the null hypothesis of:

H<sub>0</sub>: There exists no significant relationship between Customer satisfaction and its factors.

Table 8.5: Results of ANOVA statistic for the Regression

Name of the Model	Sum of Squares	Degree of Freedom	Mean Square values	F-statistic	Sig. value
1 Regression	386.728	9	42.970	217.800	.000 <sup>a</sup>
Residual	116.204	589	.197		
Total	502.932	598			

Source: Compiled by the researcher using spss

The results of ANOVA test are shown in the table 8.5 .The sample statistic of the test (F value) is 217.8 which are significant at 5% Level of significance. This clearly rejects the Null Hypothesis of no significant relationship between the Customer Satisfaction and Factors. Hence, the nine factors used in the regression model have a significant relationship with the customer satisfaction and can be reliably used as dependent variables to predict the Customer Satisfaction in the model of linear regression.

Since the model is found to be fit for running linear regression, the results of Coefficients obtained after running the model are shown in the table below:

Table 8.6: Table of Coefficients obtained from the output

	Unstandardized Coefficients		Beta	t	Sig.
	B	Std. Error			
(Constant)	3.617	.018		199.042	.000
RELIABILITY	.536	.018	.576	29.068	.000
WEBSITE	.285	.018	.310	15.626	.000

TANGIBILITY	.134	.018	.144	7.260	.000
RESPONSIVENESS	.493	.019	.523	26.401	.000
<b>EMPATHY</b>	<b>-.007</b>	.018	-.007	-.370	.712
PROMPTNESS	.203	.018	.219	11.046	.000
<b>SECURITY</b>	<b>-.059</b>	.019	-.063	-3.194	.001
TRUST	.090	.018	.098	4.948	.000
ACCESSIBILITY	.075	.018	.082	4.136	.000

Source: Compiled by the researcher using spss

The coefficient table observes that Reliability has a medium but positive impact on the satisfaction towards internet banking. The significant value is 0.000 which is less than 0.05 whereas beta value is 0.576 signify this relationship. Website Efficiency also shows positive relationship with the satisfaction towards Internet banking and the significant value of 0.000 is less than 0.05. The beta value of 0.310 signify this relationship. Tangibility has a weak but positive relationship with the satisfaction towards Internet banking with the beta value of 0.144. The p value of .000 shows the significance of beta value. Similarly. Responsiveness also shows a medium positive relationship with the satisfaction towards Internet banking services. The second highest value of beta (.523) after Responsiveness shows the importance of this variable in explaining the satisfaction towards Internet Banking. Another variable is Empathy which has a negative impact on customer satisfaction towards Internet banking with p value greater than 0.05 (0.712 > 0.05) and beta value (-0.007). Further Similar observation is found in Security which has a negative impact on customer satisfaction towards Internet banking but its p value 0.000 less than 0.05 and beta value (-0.063). Promptness shows a weak relationship with

the satisfaction towards Internet banking although The relationship seems to be positive with the beta value of .219 and the p value of .000 signifies the importance of beta value. Trust has a very weak positive impact on the satisfaction level of the customer towards internet banking and the p-value 0.000 less than 0.05 whereas beta value is 0.098 signify this relationship. Similar observation is seen in Accessibility which too has a very weak positive impact on the satisfaction level of the customer towards internet banking and the p-value 0.000 less than 0.05 whereas beta value is 0.082 signify this relationship. Thus the linear regression equation for the customer satisfaction with nine factors as dependent variables can be shown as below:

$$CS = 3.617 + 0.535(\text{Reliability}) + 0.285(\text{Website Efficiency}) + 0.134(\text{Tangibility}) + 0.493(\text{Responsiveness}) - 0.007(\text{Empathy}) + 0.203(\text{Promptness}) - 0.059(\text{Security}) + 0.090(\text{Trust}) + 0.075(\text{Accessibility}) + \text{residual error}$$

Thus, the results of the test performed in this chapter concludes that nine variables have been extracted which help in increasing the satisfaction of the customers towards Internet banking services. These are Reliability, Website Efficiency, Tangibility, Responsiveness, Empathy, Promptness, Security, Trust and Accessibility. Also, the study outlines the relationship of these

variables with Customer Satisfaction. Reliability is identified as the most important factor contributing towards Customer Satisfaction.

In order to achieve this objective, firstly the factors affecting the satisfaction of the respondents were extracted. The results are presented in the table below.

## VI Findings and Conclusion

Table 9.5: Factors affecting Internet Banking Satisfaction

<b>Factor 1</b>	<p><b>Reliability (12.323%)</b></p> <p>Internet banking improves self image(.758)</p> <p>Up-gradation of the content on banks website is done when required(.695)</p> <p>Banking improves social acceptance among peer groups (.640)</p> <p>Ensures safety of banking transactions (.604)</p> <p>Internet banking services are upto my expectations (.551)</p> <p>I trust the benefit provided by bank through internet banking (.486)</p>
<b>Factor 2</b>	<p><b>Website efficiency(11.327%)</b></p> <p>Internet banking website provides step by step info for using the same( .734)</p> <p>Internet banking website provides information which is honest and trustworthy (. 620)</p> <p>Completely depend upon bank for handling problems of internet banking (.619)</p> <p>Handles customer information safely and error free (.578)</p> <p>Service of internet banking are quick and prompt (.554)</p> <p>I trust my internet banking website(. 441)</p> <p>Banks takes into consideration my complaints about internet banking (.434)</p>
<b>Factor 3</b>	<p><b>Tangibility (8.967%)</b></p> <p>More physical facilities are provided to its customers (.771)</p> <p>Physical appearance of the services are visually appealing (.734)</p> <p>Customer service representatives readily and accurately respond to its customers (.649)</p>
<b>Factor 4</b>	<p><b>Responsiveness(8.953%)</b></p> <p>Banks customer service representatives provides advices on financial matters(.668)</p> <p>Banks make use of advance equipment and technology (.637)</p> <p>Banks take initiative in educating its customers (.563)</p> <p>Banks customers service representatives take care of specific needs(.559)</p>
<b>Factor 5</b>	<p><b>Empathy(8.092%)</b></p> <p>Banks customer service gives individual attention to customers (.799)</p> <p>Banks customer service representatives-courteous (.704)</p>
<b>Factor 6</b>	<p><b>Promptness(7.432%)</b></p> <p>Delivers service at the promised time (.828)</p> <p>Users can easily access information and services from bank's website (.576)</p> <p>Use of internet banking minimises inconvenience (.441)</p>
<b>Factor 7</b>	<p><b>Security (7.355%)</b></p>

	Only authorised person can access own account through internet banking (.803) Internet banking system keeps promises and commitments (.576) Secrecy of the credit card information is maintained (.504)
<b>Factor 8</b>	<b>Trust (7.204%)</b> Banks will never misuse my financial information placed on internet banking (.852) Protects personal information on internet banking portal (.724) Banks website safe for fund transfer using the internet (.596)
<b>Factor 9</b>	<b>Accessibility(5.488%)</b> Issue of downloading speed is duly considered (.851) Finding a piece of content or information on the web can be easily done (.612)

Source: Compiled by the researcher using spss

In the next step for achieving the similar objective, Regression technique is applied. This is done to study the relationship of the factors extracted with Customer Satisfaction. It emphasizes on the relationship between a dependent variable( Customer Satisfaction) and Independent variable( factors extracted using factor analysis).

Table 9.6: Results of Regression

(Constant)	Sig
RELIABILITY	Sig
WEBSITE EFFICIENCY	Sig
TANGIBILITY	Sig
RESPONSIVENESS	Sig
<b>EMPATHY</b>	In-sig
PROMPTNESS	Sig
SECURITY	Sig
TRUST	Sig
ACCESSIBILITY	Sig

Dependent Variable- Customer Satisfaction

Source: Compiled by the researcher using spss

## CONCLUSION

On the basis of the findings of the research work, the conclusions drawn states that the study observed certain dimensions to measure service quality and identified Reliability as a vital factor contributing to the satisfaction level of the respondents. Further the study observed certain dimensions to measure service quality and identified Reliability as a vital factor contributing to the satisfaction level of the respondents. The research suggests that more awareness need to be created regarding internet banking services, website of the banks must be user friendly and must have a proper layout. The employees of the banks should take more efforts in convincing people to resort to internet banking. Also Reliability should be communicated as it accounts for dependability of the respondents on technology based internet banking services.

## Bibliography

- [1] Parasuraman, A., Zeithaml V. A. & Berry, L. L. SERVQUAL: A multiple-item scale
- [2] for measuring consumer perceptions of service quality. Journal of Retailing.1988; 64(1):12-40



- [3] Reichheld, F.F., Sasser, W.E. Zero defections: Quality comes to services. Harvard Business Review.1990; 68: 105-11.
- [4] Jun, M., Cai, S. The key determinants of internet banking service quality: a content analysis. International Journal of Bank Marketing. 1988; 19 (7): 276-91.
- [5] Tomiuk, d. , Pinsonneault, a. Customer Loyalty and Electronic-Banking: A Conceptual Framework. Journal of Global Information Management.2001; 9:4-14
- [6] Cox, J. , Dale, B.G. Service quality and ecommerce: An exploratory analysis. Managing Service Quality. 2001; 11(2):121-131
- [7] Broderick, A.,Vachirapornpuk, S. Service quality in Internet banking: the importance of customer role. Marketing Intelligence & Planning. 2002; 20( 6): 327 – 3
- [8] Gefen, D. Customer loyalty in e-commerce. Journal of the Association for InformationSystems. 2002;,3(2): 27–51
- [9] Cronin, J.J. Jr .Looking back to see forward in services marketing: some ideas to consider. Managing Service Quality. 2003 ; 13 (5): 332-37
- [10] White H., Netli ,F. Internet banking in UK : why are there not more customers? Journal of financial services marketing.2004;9(1): 49-56.
- [11] Fernandes,C., Awamleh, R. Internet Banking: an empirical investigation into the extent of adoption by banks and the determinants of customer satisfaction in the United Arab Emirates. Journal of internet banking and commerce. 2005;10 (1): 1-12
- [12] Mobarek, Asma, E-Banking Practices and Customer Satisfaction - A Case Study in Botswana. 20th Australasian Finance & Banking Conference. SSRN Electronic journal. 2007 Paper. Available at SSRN: <http://ssrn.com/abstract=1011112> accessed on: 24 October, 2014
- [13] Saravanakumar,S.CRM in banking,. 2009;Available from <http://www.articlesbase.com/banking-articles/crm-in-banking-1302680.html>:(accessed on MARCH 25,2014
- [14] Swaminathan, J , Ananth, A. *Customer satisfaction on e-banking; a study with special reference to mayiladuthurai* . Share Journal of Multidisciplinary Research and Studies.2010; . 2(1): 42-47.
- [15] Kumbhar, V.Determinants of Internet Banking Adoption: An Empirical Evidences
- [16] From Indian Banking. Indian Journal of Commerce & Management Studies. 2011;.2(4): 15-25.