

EFFECTIVENESS OF DIGITAL BANKING

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Abstract

Digital banking is the digitalization or moving online of all the traditional banking activities and programs that historically was only available to customers when physically inside of a bank branch. The shift from traditional to digital banking has been gradual and remains ongoing, and is constituted by different degrees of banking service digitization. With the emerging technology of digital banking, there are also many innovations that have been succeeding such as mobile digital wallets, investment management applications, depositing mobile checks through banking applications, card-less ATM withdrawals, and many more solutions towards the emergence of digital banking. Digital banking services have many advantages and various valuable benefits when compared to Conventional banking services. In this research we found that bank provides quick response towards the grievances and requests of customers. The information provided by the customers was not misused by the bank. The research also found that most of the respondents are unaware about the online banking charges and e-fund transaction limit. The present study is limited to the customers of Kattappana ICICI bank branch at Idukki district of Kerala in India.

Key Words: Mobile Apps, RTGS and NEFT, E-fund, Digital wallets, Bank charges, dissimilarities of websites and ATM.

Introduction

Digital banking is part of the broader context for the move to online banking, where banking services are delivered over the internet. The shift from traditional to digital banking has been gradual and remains ongoing, and is constituted by different degrees of banking service digitization.

Online banking, also known as internet banking, is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website. The online banking system will typically connect to or be part of the core banking system operated by a bank and is in contrast to branch banking which was the traditional way customers accessed banking services.

Statement of Problem

The emergence of internet leads to innovative changes in banking sector and helps to provide speedy e-payment and e transactions etc. through digital banking. Increased use of internet banking reduces the use of paper work, and work load of staffs.

The major issues faced by digital banking services are unavailability of internet, problem of hacking etc. Lack of awareness and knowledge in information technology are other challenges of digital banking. Security is another major problem affecting digital banking. The present study examines the satisfaction level of the respondent, safety measures and awareness level of the respondent through digital banking services

Relevance of Study

The digital revolution has changed many elements within almost every industry, especially the financial industry. The new technology wave that has started throughout the entire finance industry has changed a lot of the banking structures that were traditionally set up. Automation is one of the biggest focuses that banks are looking at because technology is growing. Banking solutions have changed drastically since the introduction of online banking options. There are many options to withdraw money, deposit checks, or transfer money without going to the bank and, with technology advancements, all this has revolutionized.

Cyber security and data protection have also improved drastically since the entire industry has shifted to more digital banking options. Factors such as online banking, ATM machines, financial integration, and 24-hour access have changed the outlook for why there is a need for digital banking.

The difference between digital banking and online banking is the aspect of traditional solutions compared to using newer methods of digitalization. Online banking allows people to check transfer and manage their funds globally through a variety of different options. Management solutions being conducted in a more accurate and faster way is creating a positive potential in finances. All these make the study relevant.

Scope of the study

The present study is based on effectiveness digital banking services among the public in the state of Kerala. Respondents were identified those who are enjoying the benefits of digital banking services to improve their standard of living. Now all the business-like commerce, trade, import, export, purchase and sale of goods is relying upon electronic banking. By using the advance electronic technology, the banking services are fast and economical. Digital banking facilitates saving time money.

Objectives of Study

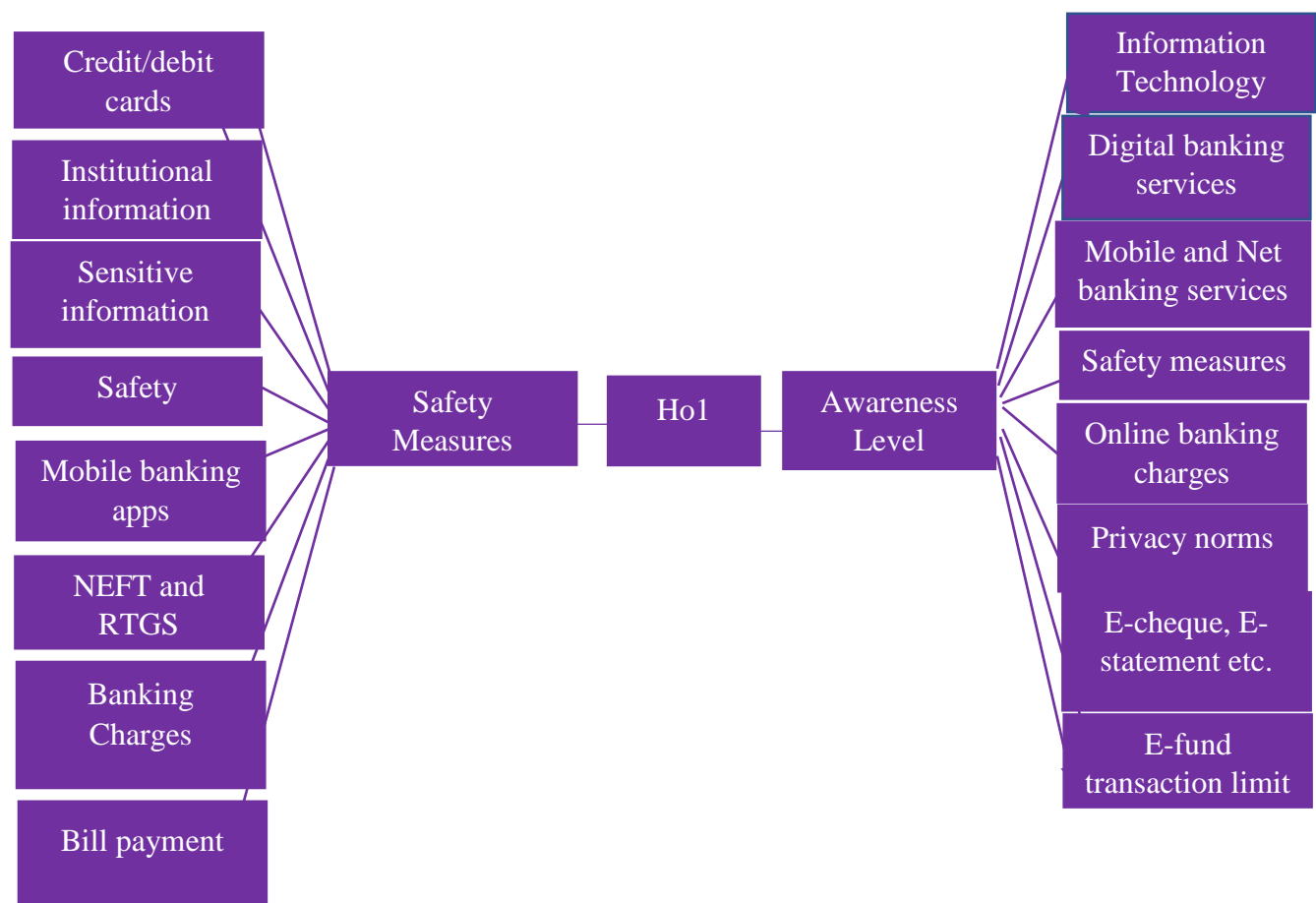
The main objectives of the study are as follows:

1. To measure customer satisfaction level of digital banking in ICICI Kattappana Branch.
2. To understand the safety measure of digital banking services in ICICI Kattappana Branch.
3. To study the customer awareness about digital banking services in ICICI Kattappana Branch.

Hypothesis Formulated

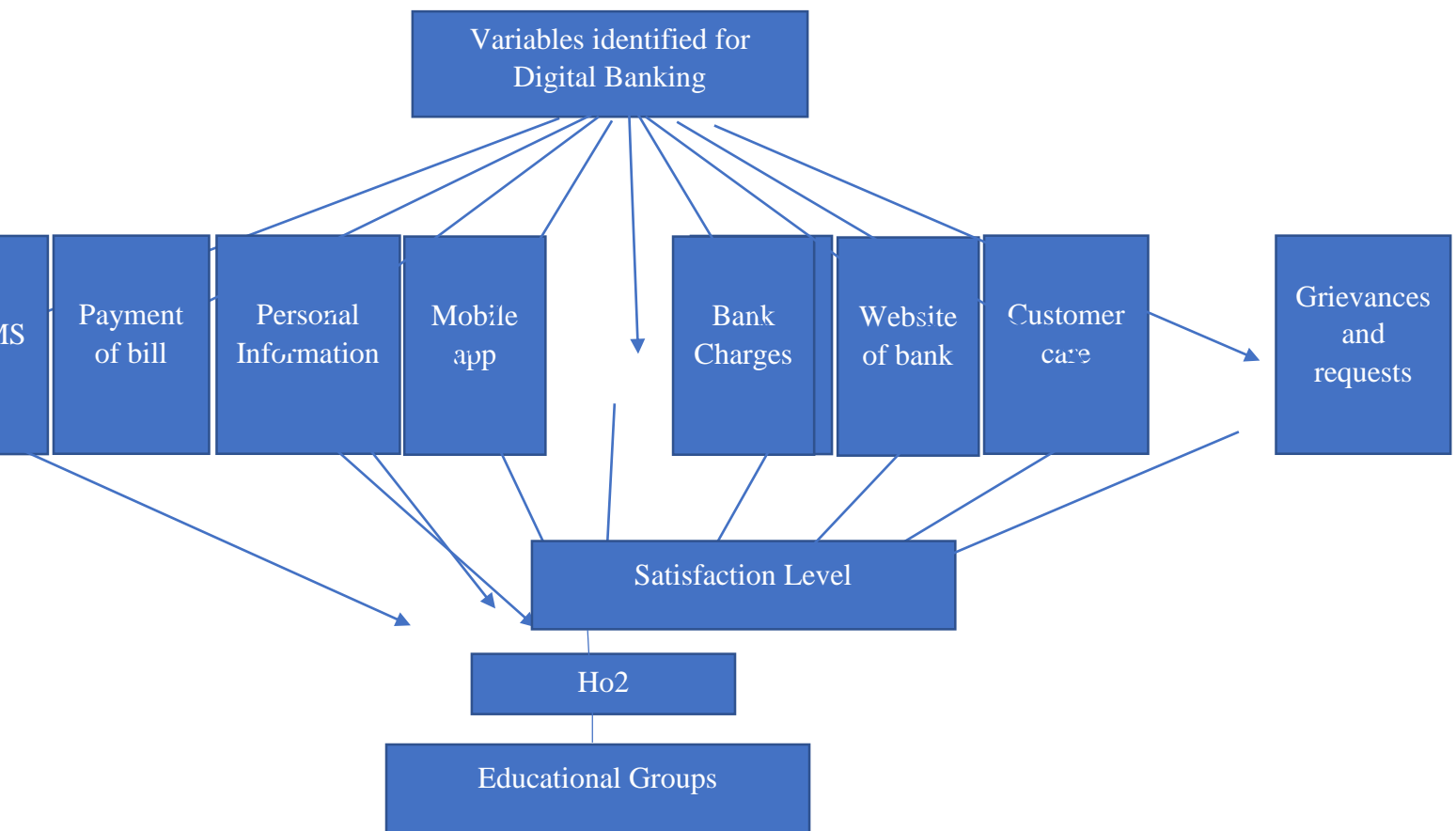
The hypothesis formulated for the study is as follows:

Ho1: There is no significant relationship between safety measures of digital banking and awareness level of digital banking. Variables identified were showed as figure.



Source: Compiled by researchers

Ho2: There is no significant difference in the opinion among educational groups regarding the satisfaction level of digital banking.



Source: Compiled by researchers

Research Methodology

The study is descriptive and analytical in nature and has adopted the following methodology.

Sample design

The population of study consisted of the digital banking services among the residents in ICICI Bank Kattappana Branch. Data were collected from the customers who avail the benefit of digital banking services of ICICI Bank Kattappana branch. 50 beneficiaries were identified as sampling size. Convenient sampling was used as sampling technique.

Source of Data

The data required for the study were collected from both primary and secondary sources. Primary data were collected from customers who availed the benefits of digital banking services. The questionnaire elicited information relating to profile of the respondents, their current status, type of account, satisfaction level, safety measures and awareness level. Secondary data for the study is collected from various publications, books, published research articles, journals and websites.

Tools for Collection and Analysis

The tools used for collecting primary data were structured questionnaire for respondents who avail the benefits of digital banking. All data were tabulated to facilitate interpretation. The hypotheses were tested using tools like One Way Anova, Karl Pearson's co-efficient of correlation. Test Analysis were undertaken to determine whether there was a significant difference in the variables identified.

Review of Literature

This session intends to throw light on the existing studies undertaken in the areas of Digital Banking with a view to gain a theoretical understanding on the topic.

Amsaveni and kanagarathinam (2017) in their research paper "A study on consumer awareness of e- banking services in public sector banks". The study concluded in connection with relationship between management and customers utilizing e- banking services the emerging problems are to be redefined from its originality to provide the services to all types of customers in all locations. **Aartisharma and Nidhipiplani (2017)** in their research paper "Digital banking in India: A review of trends, opportunities and challenges". They found that Digital innovation will also enable to create infrastructure for recent technologies such as Bit coins and Block chain technologies and online platforms like Facebook, Amazon among others are expected to enter digital retail payments industry. **Cajetan (2018)** in his research paper entitled "Digital banking, customer experience and financial performance". He found that there is a positive relationship between Perceived value and customer experience, convenience and customer experience, functional quality and customer experience, digital bank service quality and customer experience etc. The study concluded that customer perceptions among digital banking, customer experience, satisfaction, loyalty, and two measures of financial performance, namely financial relations and NPS criteria and the implications of these links for bank marketing can be used to explore customer experience and financial performance.

Jenkins (2007), in his research paper "Adopting internet banking services in a small island state: Assurance of bank service quality". He found that those banks were using e- banking as an assurance to their customers to maintain a competitive quality of service and to continually improve the performance of e-banking services through new IT infrastructure, transaction security, customer relationships and value-added content. **Liao and Cheung (2002)**, in their research paper entitled "Internet based e-banking and consumer attitudes: An empirical study. They found that the most important quality attributes underlying perceived usefulness of e- banking are expectations of accuracy, security, network speed, user friendliness, use involvement and convenience. **Joseph and Stone (2003)** in their research paper entitled "An empirical evaluation of US Bank customer perceptions of the impact of Technology on service delivery in the banking sector". They found that high scores on the ability to deliver service via technology appear to be correlated with high satisfaction with services deemed most important to customers. Hence, availability of Internet banking services appears to be very important for customer's satisfaction and retention. **Calisir and Gumussoy (2008)**, in their research paper entitled " Internet banking versus other banking channels: young customer's view". They found that ATM and mobile banking substitute each other. They concluded that ATM and mobile banking are beneficial for youth. **Tejinderpalsingh (2013)** in his research paper " Security and privacy issues in e- banking" His major findings are based on the awareness regarding innovative banking

channels ie, ATM and Internet banking or mobile banking. The overall level security and privacy concern and satisfactions regarding the ATM users are high regarding safety of withdrawal of cash from ATM. The study concluded that except ATM, the level of concern for security and privacy regarding use of e- banking services is high. **Vijay (2011)** in his research paper "Factors affecting the customer satisfaction in e-banking". He found that perceived value, brand perceptions, cost effectiveness, easy to use, convenience, problem handling, security/assurance and responsiveness are important factors in customer satisfaction in e-banking and also evaluated contact facilities, system availability, fulfilment, efficiency and compensation are comparatively less important because of the dimensions. The study concluded that the factors affecting on customers satisfaction in e-banking service settings and influence of service quality on brand perception and perceived value. **Bilamge (2011)** in "A Comparative Study of Customer Perception towards Services Rendered by Public Sector and Private Sector Banks" evaluated and compared the customer satisfaction level in ICICI bank and State Bank of India. The results of the study revealed that behaviour of the ICICI Bank staff was friendlier than that of State Bank of India. As compared to SBI, token system and upholding of ATMs in ICICI Bank was highly treasured by all the customers. It was concluded that vital services were lacking in both the banks. **Kumbhar Vijay (2011)** in his study "Customer satisfaction in ATM service: an empirical evidences from public and private sector banks in India" aimed at comparative investigation of the customer satisfaction in ATM service in public and private sector banks, observed that other than cost effectiveness of ATM service perception about all service quality dimensions is approximately same in public and private sector banks. This study concluded that private sector banks are providing more satisfactory ATM service than public sector banks Overall results shows that cost effectiveness of ATM service were core service quality dimension and it were significantly affecting on overall customer satisfaction in ATM service provided by commercial banks. **Manivannan (2017)** author stated in this study on usage of Digital Banking and the customer centric banking in their research paper entitled "Usage of Digital banking". They are Internet, Wireless gadgets, ATM's, Mobile payment wallets and different digital applications. These offices are broadly given by all the banking organizations. The study concluded industry looking preferences a customer centric banking industry. **Sikdar and Makkad (2013)** in their study " Internet Banking in India – a perspective on benefits and challenges involved" suggested that commercial banking activities over the long haul can be significantly streamlined by limiting the branch based connections with the customers, empowering the banks to centre around coordinate offering and different exercises requiring higher spotlight with respect to commercial banks. **Trivedi and Remedios (2014)** in their research paper " Internet Banking and Customer Retention-A Study on the Impact of Internet Banking on Customer Retention of HDFC Bank" explained the Impact of Internet banking on customer retention plainly demonstrate that internet banking holds customers. On the off chance that the bank intends to expand the customer base of internet banking they should concentrate more on service quality, responsiveness, protection and security, affirmation and dependability elements of internet banking. All the more ever the bank ought to be more mindful to make their internet banking service greater quality full for their customers.

Research Gap

All the above study points out to the fact that digital banking services plays a pivotal role in the society as well as the economy. The challenges are derived from the exponential change in technology. The above literatures are clubbed under three heads:

- 1 Awareness of E-banking services.
2. Opportunities and challenges of E-banking services
3. Security and privacy issues of E-banking services.

The review of literature points out several issues pertaining to digital banking services. The present study is an attempt to identify the effectiveness of digital banking and the attitude of general public towards e-banking. This makes the study different from existing one.

Results and Discussion

Reliability Analysis

Cronbach's Co-efficient Alpha SL, SM and AL

SI No	Factors (Constructs)	Item Acronym	Number of Items	Cronbach's Alpha
1	Satisfaction Level	SL	11	0.721
2	Safety Measures	SM	8	0.741
3	Awareness Level	AL	8	0.734

Source: Researchers' Calculation.

A reliability test was carried out using **Cronbach's Alpha**, which measures the internal consistency of research constructs and the result is exhibited in the Table No 4.7. The Alpha values for all the three factors are above 0.70, the threshold suggested by Nunnally (1978). Thus, it can be concluded that the scale has internal consistency and reliability. In other words, the items that are used in it measures what are intended to measure.

1.Satisfaction level of respondents in digital banking services (SL)

Mean is highest for SL8 (2.28) and lowest for SL1 (1.64). SD is highest for SL5 (0.86) and lowest for SL2 (0.656). Mode for SL1 is 1 and SL for all others is 2 respectively. It is evident that the respondents are highly satisfied with the digital banking services. Survey details are given in **Table No 1.1**

Table No.1.1

Satisfaction Level of Respondents in Digital Banking Services

No.	Particulars	Item Acronym	Mean	Mode	SD
1	Comfortable with SMS	SL1	1.64	1.00	0.692
2	Procedure and security	SL2	1.76	2.00	0.656
3	Personal Information	SL3	1.96	2.00	0.668
4	Mobile App	SL4	1.88	2.00	0.773
5	Net Banking	SL5	2.22	2.00	0.864
6	Banking Charges	SL6	1.78	2.00	0.708
7	Travel Card	SL7	1.92	2.00	0.804
8	Bank Website	SL8	2.28	2.00	0.858
9	Doubt Clarification	SL9	1.94	2.00	0.842
10	Grievances and Requests	SL10	2.00	2.00	0.782
11	Internet Banking Services	SL11	2.1	2.00	0.788

Source: primary data

Hypothesis Tested

The hypothesis tested for the study is as follows:

Table No.1.1A

ONE WAY ANNOVA

Educational Group	N	Mean	SD	F value	P value
High School	6	2.197	0.346	0.999	0.430
Intermediate	4	2.181	0.385		
Degree	19	1.880	0.315		
Master Degree	12	1.931	0.571		
Professional Degree	6	1.939	0.396		
Others	3	1.727	0.181		

Source: compiled by researchers

Since P value is greater than 0.05 we reject the null hypothesis. The null hypothesis is rejected at 5 % level of significance. Hence it is concluded that there is significant difference between the opinions among educational groups regarding the level in digital banking. Based on mean score it is clear that high school respondents (2.197) have better opinion regarding digital banking than another educational groups.

2. Safety measures of respondents in digital banking services (SM)

Mean is highest for SM4 (2.22) and lowest for SM8 (1.76). The mean scores shows that the safety level. SD is highest for SM4 (0.84) and lowest for SM2 (0.65). Mode is 2 for all which means most of the respondents feel safe about the digital banking services. Survey details are given in **Table No 1.2**

Table No. 1.2

Safety Measures of respondents in digital banking.

No.	Particulars	Item Acronym	Mean	Mode	SD
1	Credit/Debit Card Information	SM1	1.82	2	0.69
2	Institutional Information	SM2	1.84	2	0.65
3	Safety	SM3	1.96	2	0.754
4	Sensitive Information	SM4	2.22	2	0.84
5	Mobile Banking App	SM5	1.94	2	0.711
6	NEFT and RTGS	SM6	2.14	2	0.756
7	Bill Payment	SM7	1.94	2	0.818
8	Charges	SM8	1.76	2	0.656

Source: Primary data

Hypothesis Tested

The hypothesis tested for the study is as follows:

Table No.1.1B

Karl Pearson's Co-efficient of Correlation

Variable	N	Correlation	P value
Safety measures of digital banking and awareness level of digital banking	50	0.500	0.000

Source: compiled by researchers

Since P value is less than 0.01 we accept null hypothesis. The null hypothesis is accepted at 1 % level of significance. Hence it is concluded that there is no significant relationship between safety measures in digital banking and awareness level of digital banking.

Based on Correlation Co-efficient it is identified that there exist 50% significant relationship between two variables. It proves that when safety measures in digital banking increases awareness level also increases.

3. Awareness Level of respondents in digital banking services (AL)

Mean is highest for AL6 (2.18) and lowest for AL3 (1.9). Mode for the 8 measures is 2. SD is highest for AL4 (0.746) and lowest for AL1 (0.493). It is evident that respondents are aware of the digital banking services. Survey details are given in **Table No 4.3**

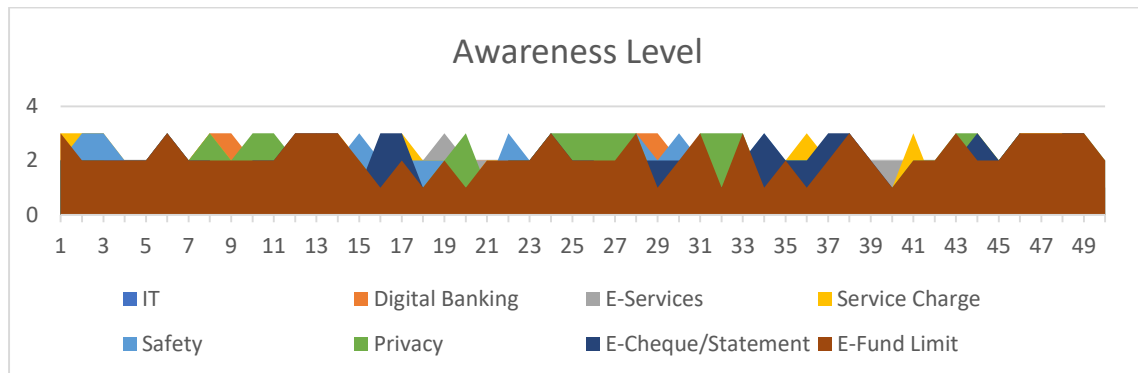
Table No. 4.3

Awareness level of respondents in digital banking services

No.	Particulars	Item Acronym	Mean	Mode	SD
1	Information Technology	AL1	1.96	2	0.493
2	Digital Banking Services	AL2	2.1	2	0.580
3	Mobile and Net banking Services	AL3	1.9	2	0.614
4	Online Banking Charges	AL4	2.12	2	0.746
5	Safety Measures	AL5	2.14	2	0.639
6	Privacy Norms	AL6	2.18	2	0.719
7	E-cheque, E-statement etc.	AL7	2.02	2	0.742
8	E-fund Transaction Limit	AL8	2.14	2	0.670

Source: Primary data

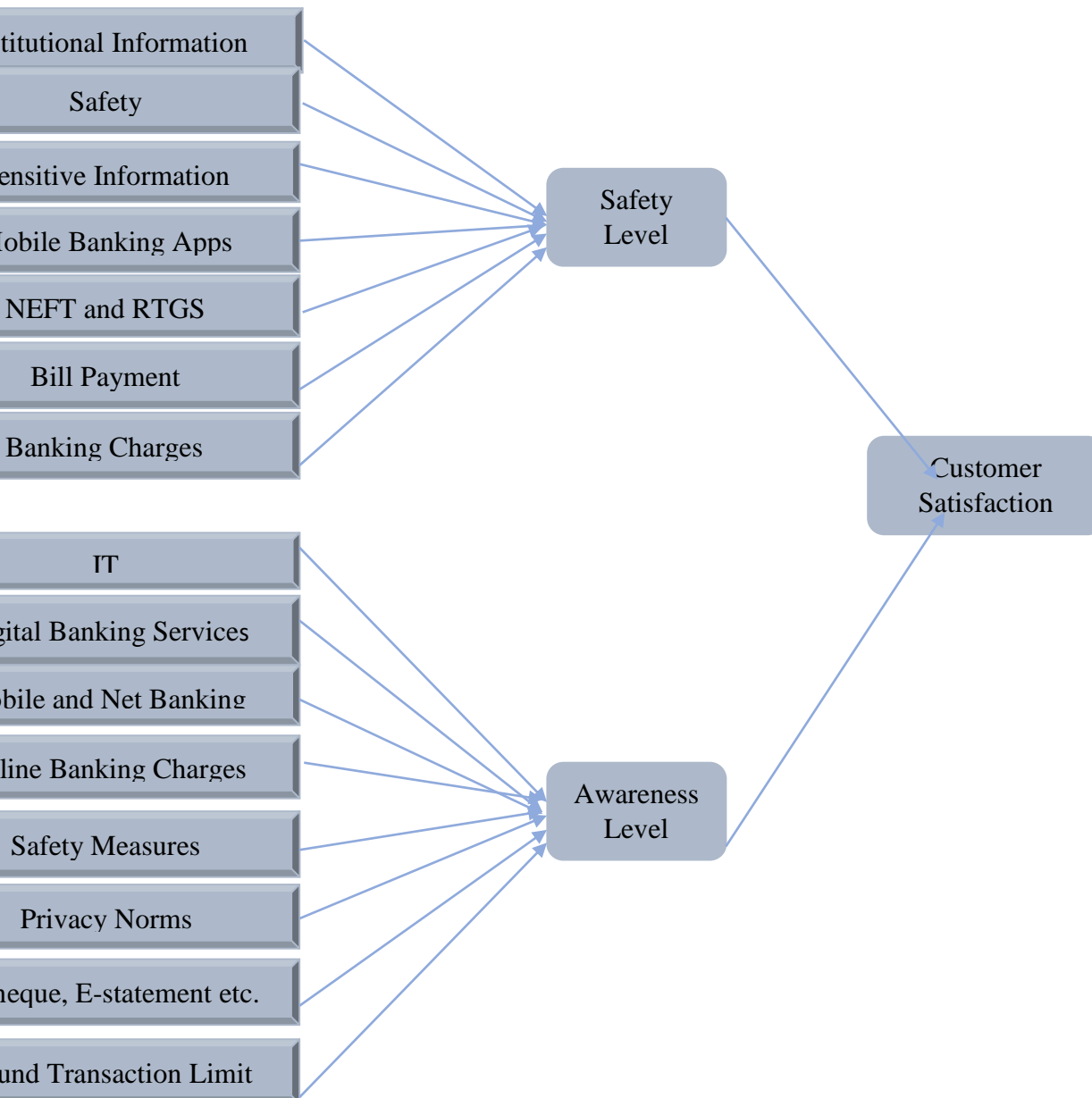
The **Figure 4.5** represents the awareness level of respondents in digital banking services. It is clear that the awareness of the respondents is most in E-fund limit and E-cheque and statement. The awareness of the respondent is least in digital banking services. The study reveals that respondents are not very aware of all the digital banking services and are very aware of e-cheque, e-statement, e-bulletin etc. and e-fund transaction limit.



Awareness level of the Respondents

Figure No.1.3

Satisfaction Model developed by researchers



CONCLUSION

A digital bank represents a virtual bank that includes Online banking, Mobile banking, SMS banking, Tele banking etc. Digital banking services have many advantages and various valuable benefits when compared to Conventional banking services. In this research we found that bank provides quick response towards the grievances and requests of customers. The information provided by the customers was not misused by the bank. The research also found that most of the respondents are unaware about the online banking charges and e-fund transaction limit. The reason behind this unawareness was lack of technical skill. Quick transactions are easily possible through digital banking.