

A STUDY ON CUSTOMER PERCEPTION TOWARDS DIGITAL BANKING

Submitted in partial fulfillment of the requirements for the award of

Master of Business Administration

by

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SCHOOL OF BUSINESS ADMINISTRATION

SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)

Accredited with Grade "A" by NAAC | 12B Status by UGC | Approved by AICTE
Jeppiaar Nagar, RAJIV GANDHI SALAI, CHENNAI - 600 119

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BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of Ms. Akilandeswari Venkatraman Iyer (39410003) who has done the Project work entitled ,"**A Study On Customer Perception Towards Digital Banking**" under my supervision from December 2020 to February 2021.

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DECLARATION

I, **Akilandeswari Venkataraman Iyer** , (39410003) hereby declare that the Project Report entitled, “**A Study On Customer Perception Towards Digital Banking**” done by me under the guidance of Dr. D. Velumoni, MBA., M.Phil.,Ph.D is submitted in partial fulfillment of the requirements for the award of Master of Business Administration degree.

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ABSTRACT

Digital banking in India traces back to the late 1990s. But still people restrain themselves from using and adapting to digital banking practices and products. Digital banking plays a vital role in today's world where people are looking beyond the traditional way of going to the bank for doing their bank transactions. Therefore with the world getting adapted to digitalisation some yet avoid or restrict themselves from digital banking interface. The way customers perceive Digital Banking is affected by a wide range of factors that include Trust, Technology, knowledge regarding Digital banking , etc. This study tries to identify the factors that affect customers' perception towards digital banking. The research is descriptive in nature. Convenient sampling technique has been used . Data has been collected from 200 respondents. Statistical analysis tools such as One way ANOVA (Analysis of Variance, Independent Sample T test, Frequency Analysis, Correlation and Regression have been used to interpret data. From analysis it has been identified that the factors affecting customer perception towards Digital Banking are Safety in using Digital banking, Trust on Bank, Technology available, Knowledge on Digital Banking. From study it has also concluded that demographic factors exert a significant influence over the former said Digital Banking Factors. There also exists a significant relationship between Trust on Bank and Digital Banking Interface and such said trust impacts the usage of Digital Banking interface to a significant level. The satisfaction levels of customers of digital banking & the common issues faced while transacting through Digital banking medium have been found. From this study it is suggested that since trust has a significant impact on Digital Banking interface Banks need to work on building trust among its customers. Banks also need to ensure proper measures are made to increase the customer satisfaction levels by reducing the frequency of issues faced by the customers while transacting through Digital Banking mode.

Keywords: *Digital Banking, Trust, Technology, Safety , Knowledge in using Digital Banking, Customer Perception*

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CHAPTER - 1

INTRODUCTION

1.1DIGITAL BANKING

1.1.1 Digital Banking In India

The need for computerization of the banking sector was felt in the late 1980s. Therefore the Reserve Bank set up a committee in this regard in 1988 headed by Dr. C. Rangarajan. Banks started using information technology initially with the introduction of standalone Personal Computers and migrated to Local Area Network connectivity. Then with further evolution, banks adopted the core banking platform. It was when branch banking was changed to bank banking. Core banking solution allowed banks to raise the comfort aspect to the customers, and it was hailed as a promising step towards improving customer convenience through the so-called “Anywhere and Anytime Banking.” Thereafter the process of computerization kicked up with the opening of the economy in the early 90s. A major propeller for this transformation was due to the rising competition from private and foreign banks. Many commercial banks started adopting digital customer services to stay competitive.

Indian banking industry has recently witnessed the roll out of innovative banking models like payments and small finance banks. RBI’s new measures may go a long way in helping the restructuring of the domestic banking industry. The digital payments system in India has evolved the most among 25 countries with India’s Immediate Payment Service being the only system at level five in the Faster Payments Innovation Index .

1.1.2 Current Scenario Of Digital Banking India

India’s push to assemble a less-cash economy is by all accounts gathering momentum with the central bank recording a phenomenal development in digital transactions till March 2019 and setting a driven objective to push up the volumes by multiple times by 2021. All out digital transactions in volume terms recorded a

development pace of 58.8 per cent during 2018-19, over a development of 50.4 per cent during 2017-18, the Reserve Bank of India said in a report. The RBI says digital transactions in esteem terms developed by 19.5 per cent during 2018-19, compared to the development of 22.2 per cent during 2017-18. Despite the fact that the greater part of digital transactions in esteem terms (82.8 per cent) are accounted for by RTGS transactions, retail component of digital transactions (barring RTGS customers and interbank transactions) saw a volume development of 59.3 per cent during 2018-19, as against 50.8 per cent development in the previous year.

Given the current pattern under tight restraints utilization and the push to move to digitised transactions, the RBI's vision document expects the volume of registration payments would be under 2.0 per cent of the retail electronic transactions by 2021. Payment systems like the Unified Payment Interface (UPI) are probably going to enroll normal annualized development of more than 100 for every cent and NEFT at 40 for each cent over the vision time frame.

1.1.3 Digital Transactions

The quantity of digital transactions is relied upon to build multiple occasions from Rs 2,069 crore in December 2018 to Rs 8,707 crore in December 2021, it says. "In esteem terms, retail transactions developed by 38.2 per cent, over 45.8 percent development a year ago. They accounted for 99.4 % and 17.2 % of all out digital transactions volume and worth, separately," the RBI said in its report 'Payment and Settlement: The Plumbing in the Architecture of India's Financial System'. The central bank report says, throughout the years, the payment and settlement scene has seen unprecedented rushes of advancement. "Versatile wallets have truly made banking services accessible 'on tap'; digital-just banks have discarded the requirement for physical nearness. Biometric authentication has made doing transactions a lot more secure and more convenient than the conventional methods of payment. Block chain might be a potentially troublesome innovation however it is making solid tailwinds in the area of payments for robotizing and decentralising financial transactions," it said

1.1.4 Volume Of Digital Banking Trade And Usage

According to the RBI, volumes under UPI, a moment ongoing payment system, arrived at a pinnacle of 799.5 million in March 2019, 4.5 occasions the volume in March 2018. For the financial as entire, the all out UPI volume was multiple times bigger than the volume during 2017-18. As far as worth, UPI transactions saw an eight-overlay increment over the previous year. The normal worth per transaction remained at Rs 1,670 in March 2019, the RBI said. UPI is a quick money transfer system that empowers nonstop interbank support transfer, consistently. Since its commercial dispatch in August 2016, it has seen a mammoth ascent in volumes by a wide margin surpassing the transactions done on the IMPS stage.

The volume of cards in retail location transactions became 30.1 per cent during 2018-19 (36.2 per cent a year ago) and in esteem terms, by 30.2 per cent (39.6 per cent a year ago). During 2018-19, check cards developed by 19.5 per cent and 16.3 per cent in volume and worth terms (9 for every cent and 24.9 per cent a year ago), the RBI says. Nonetheless, charge cards saw higher development of 25.4 per cent and 31.4 per cent in volume and worth, individually, during 2018-19 (29.2 per cent and 39.7 per cent a year prior). "Despite the fact that ATM use accounted for significant portion of charge card transactions (69.1 per cent in volume and 84.8 per cent in esteem), there is prof of increment in utilization of check cards at PoS consistently, from 4 for every cent in 2011-12 to 15 for each cent in 2018-19 in esteem terms," it said. During 2018-19, check card PoS utilization developed by 32 for every cent and 29 for each cent for volume and worth, separately (39.3 per cent and 39.5 per cent a year prior). The Reserve Bank is currently pushing for a 34 for each cent increment in PoS terminals to 50 lakh in vendor establishments, principally including 44 for every cent of complete platinum card transactions, in the following two years while focusing on "cash-light economy" and digital modes for e-commerce.

1.2 INDIAN BANKING SECTOR

1.2.1 History

Indian Banking Industry originated in the first decade of 18th century as The General Bank of India came into existence in the year 1786. And then later Bank of Hindustan was started. The India's oldest bank which is in existence is the State Bank of India being established as "The Bank of Bengal" in Calcutta in June in the year 1806. A couple of decades later in the year 1850 the foreign banks like Credit Lyonnais started their operations in Calcutta. Calcutta was the most active trading port at that time which was during the British Empire, due to these reasons the banking activity took roots there and prospered. In the year 1865, the first fully Indian owned bank was established in Allahabad.

Punjab National Bank was established expanding the markets by the 1900s, Bank of India the year in 1895 in Lahore and the same Bank of India 1906, in Mumbai - both were founded under private ownership. Then later in the year 1935, the Reserve Bank of India formally took over the responsibility of regulating Indian banking sector. In the year 1947, after India's independence the Reserve Bank was nationalized and given more powers.

The Indian Banking Industry in 1960 became an important tool to facilitate the financial development of the Indian economy. Simultaneously it emerged as a large employer and debate prevailed that ensured about the possibility of nationalization of the banking industry. The then Prime Minister of India, Indira Gandhi expressed the intention of the GOI in the annual conference of the All India Congress Meeting. This was received with positive enthusiasm by the whole nation. Later the GOI was issued an ordinance and nationalized the 14 largest commercial banks with effect from the midnight of July 19, 1969. In 1980 for the second time nationalisation of 6 more commercial banks was done. The nationalization was done to give the government more control of credit delivery. With this the GOI controlled around 91% of the banking business of India.

Narasimha Rao government formulated a policy of liberalization in the year 1990 and gave licenses to a small number of private banks, which was known as the New Generation tech-savvy banks, some of the banks were like the UTI Bank(now re-named as Axis Bank) ,ICICI Bank and HDFC Bank. Liberalization along with the rapid growth in the economy of India boosted the banking sector in India, which has seen strong contribution from all the three sectors of banks, namely, government banks, private banks and foreign banks. The next stage for the Indian Banking Industry was to setup with the proposed relaxation in the norms for Foreign Direct Investment, where voting rights were given to all the Foreign Investors in banks which could exceed the present cap of 10%, at present it has gone up to 49% with some restrictions.

Indian Banking Industry was completely shooked with the new policy. Till this time the Bankers used to the follow the 4-6-4 method (Borrow at 4%; Lend at 6%; Go home at 4) of functioning. This new wave ushered in a modern outlook and tech-savvy methods of working for traditional banks which led to the retail boom in India. People not only just demanded more from their banks but also received more. Today Banking in India is generally fair and mature in terms of supply, product range and reach though in rural India still remains a challenge for the private sector and foreign banks. Banking in terms of quality of assets and capital adequacy, banks in India are considered to have clean, strong and transparent balance sheets relative to other banks in comparable other economies. The Reserve Bank of India is the autonomous body, with has the minimal pressure from the government.

The Reserve Bank of India had permitted Warburg Pincus to increase its stake in Kotak Mahindra Bank (a private sector bank) to 10% in March 2006. It is the first time an investor has been allowed to hold more than 5% in a private sector ban. As the RBI announced norms in 2005 that any stake exceeding 5% in the private sector banks.

1.2.2 Introduction

Indian Banking Industry's growth has been more qualitative than quantitative which is expected to remain the same for the coming years. The projections of "India Vision 2020" prepared by the Planning Commission, also the Draft 10th Plan, the report forecasts that the pace of expansion in the balance-sheets of banks would be decelerating.

By the end of March 2010 the total assets of all scheduled commercial bank was estimated at Rs 40,90,000 crores. Which constitutes of about 65 % of GDP at current market prices as compared to 67 % in 2002-03. Banks assets were also expected to grow at an annual composite rate of 13.4 % during the rest of the year against the growth rate of 16.7 % that was between 1994-95 and 2002-03.

Indian banks have been regarded and included in the Brand Finance® Global Banking 500 in the annual international ranking conducted by UK-based

Brand Finance Plc, 20. Further as per the Brand Finance Study the State Bank of India (SBI) has become the first Indian bank to be ranked among the Top 50 banks in the world, capturing 36th rank. Through which the brand value of SBI in 2010 increased from US\$ 1.5 billion in 2009 to US\$ 4.6 billion. Another bank which made it to the Top 100 list with a brand value of US\$ 2.2 billion is ICICI. The total brand value stood at US\$ 13 Billion of the 20 Indian banks featured in the list. The nationalized banks hold the highest share of 50.5 % in the total bank credit with SBI according to the gross bank credit which associates at 23.7 % and other scheduled commercial banks at 17.8 %. Foreign banks and regional rural banks have a share of 5.5 % and 2.5 % respectively in the total bank credit. The report also constitutes that scheduled commercial banks served 34,709 banked centers out of which 28,095 were single office centers and 64 centers had 100 or more bank offices.

As per the Reserve Bank of India (RBI), India's banking sector is sufficiently capitalised and well-regulated. The financial and economic conditions in the country are far superior to any other country in the world. Credit, market and liquidity risk

studies suggest that Indian banks are generally resilient and have withstood the global downturn well.

Indian banking industry has recently witnessed the roll out of innovative banking models like payments and small finance banks. RBI's new measures may go a long way in helping the restructuring of the domestic banking industry.

The digital payments system in India has evolved the most among 25 countries with India's Immediate Payment Service (IMPS) being the only system at level five in the Faster Payments Innovation Index (FPPII). *

1.2.3 Industry Size

The Indian banking system consists of 12 public sector banks, 22 private sector banks, 46 foreign banks, 56 regional rural banks, 1485 urban cooperative banks and 96,000 rural cooperative banks in addition to cooperative credit institutions. As of July 2020, the total number of ATMs in India increased to 209,989 and is further expected to increase to 407,000 by 2021.

1.2.4 Top leading Companies

The major players in the Indian banking industry are the Bank of Baroda, State Bank of India, Canara Bank, Punjab National Bank, HDFC Bank, ICICI Bank, Kotak Mahindra Bank, Citibank, Standard Chartered Bank, HSBC Bank, ABN AMRO Bank, American Express, etc.

1.2.5 Financial Statements

Public sector banks' assets stood at Rs. 72.59 lakh crore (US\$ 1,038.76 billion) in FY19. During FY16-FY20, credit off-take grew at a CAGR of 13.93%. As of FY20, total credit extended surged to US\$ 1,936.29 billion. During FY16-FY20, deposits grew at a CAGR of 6.81% and reached US\$ 1.90 trillion by FY20. Credit to non-food industries increased 3.3% y-o-y, reaching US\$ 1.26 trillion on February 28, 2020 and US\$ 1.42 trillion on March 13, 2020.

1.2.6 Investments/Developments

Key investments and developments in India's banking industry include:

On November 6, 2020, WhatsApp started UPI payments service in India on receiving the National Payments Corporation of India (NPCI) approval to 'Go Live' on UPI in a graded manner.

In October 2020, HDFC Bank and Apollo Hospitals partnered to launch the 'HealthyLife Programme', a holistic healthcare solution that makes healthy living accessible and affordable on Apollo's digital platform.

In 2019, banking and financial services witnessed 32 M&A (merger and acquisition) activities worth US\$ 1.72 billion.

In March 2020, State Bank of India (SBI), India's largest lender, raised US\$ 100 million in green bonds through private placement.

In February 2020, the Cabinet Committee on Economic Affairs gave its approval for continuation of the process of recapitalization of Regional Rural Banks (RRBs) by providing minimum regulatory capital to RRBs for another year beyond 2019-20 - till 2020-21 to those RRBs which are unable to maintain minimum Capital to Risk weighted Assets Ratio (CRAR) of 9% as per the regulatory norms prescribed by RBI.

In October 2019, Department of Post launched the mobile banking facility for all post office savings account holders of CBS (core banking solutions) post office. Deposits under Pradhan Mantri Jan Dhan Yojana (PMJDY) stood at Rs. 1.06 lakh crore (US\$ 15.17 billion).

In October 2019, Government e- Marketplace (GeM) signed a memorandum of understanding (MoU) with Union Bank of India to facilitate a cashless, paperless and transparent payment system for an array of services. In August 2019, the Government announced major mergers of public sector banks, which included United Bank of India and Oriental Bank of Commerce to be merged with Punjab National Bank, Allahabad

Bank to be amalgamated with Indian Bank and Andhra Bank and Corporation Bank to be consolidated with Union Bank of India.

The NPAs (Non-Performing Assets) of commercial banks recorded a recovery of Rs. 400,000 crore (US\$ 57.23 billion) in the last four years including record recovery of Rs. 156,746 crore (US\$ 22.42 billion) in FY19. Allahabad Bank's board approved the merger with Indian bank for the consolidation of 10 state-run banks into the large-scale lenders.

The total equity funding of microfinance sector grew at 42 y-o-y to Rs. 14,206 crore (US\$ 2.03 billion) in 2018-19.

1.2.7 Government Initiatives

As per Union Budget 2019-20, the Government proposed fully automated GST refund module and an electronic invoice system that will eliminate the need for a separate e-way bill.

Under the Budget 2019-20, Government proposed Rs. 70,000 crore (US\$ 10.2 billion) to the public sector banks.

Government smoothly carried out consolidation, reducing the number of Public Sector Banks by eight.

As of September 2018, the Government of India made Pradhan Mantri Jan Dhan Yojana (PMJDY) scheme an open-ended scheme and added more incentives.

The Government of India planned to inject Rs. 42,000 crore (US\$ 5.99 billion) in public sector banks by March.

1.2.8 Achievements

Following are the achievements of the Government:

In November 2020, Unified Payments Interface (UPI) recorded 2.21 billion transactions worth Rs. 3.90 lakh crore (US\$ 53.06 billion).

According to the RBI, India's foreign exchange reserve reached US\$ 574.82 billion as of November 27, 2020.

To improve infrastructure in villages, 204,000 point of sale (PoS) terminals have been sanctioned from the Financial Inclusion Fund by National Bank for Agriculture & Rural Development (NABARD).

1.2.9 Road Ahead

Enhanced spending on infrastructure, speedy implementation of projects and continuation of reforms are expected to provide further impetus to growth in the banking sector. All these factors suggest that India's banking sector is poised for a robust growth as rapidly growing businesses will turn to banks for their credit needs.

Also, the advancement in technology has brought mobile and internet banking services to the fore. The banking sector is laying greater emphasis on providing improved services to their clients and upgrading their technology infrastructure to enhance customer's overall experience as well as give banks a competitive edge.

India's digital lending stood at US\$ 75 billion in FY18 and is estimated to reach US\$ 1 trillion by FY23 driven by the five-fold increase in the digital disbursements.

1.3 NEED FOR THE STUDY

Digital banking plays a vital role in today's world where people are looking beyond the traditional way of going to the bank for doing their bank transactions. Therefore with the world getting adapted to digitalisation some yet avoid or restrict themselves from digital banking interface. Various factors affect the Customers Perception towards Digital Banking. These factors include Trust, Usability, Technology etc. Digital Banking is becoming the next mandatory development step in Banking. Therefore it is not only a tool for easy use of banking it soon is probably to become an essential mode for any kind of banking service. Therefore it is the need of hour to study the factors that affect the Customers Perception towards Digital Banking and for banks to find essential measures to address such impacting factors in the present to avoid a error filled system in the future.

1.4 SCOPE OF STUDY

- This study covers the customers and their perception towards Digital Banking sector.
- The study focuses on the factors affecting customers' perception towards Digital Banking that are Trust, Technology, Knowledge on Digital Banking, Security in using Digital Banking and the study analyses customer satisfaction levels on using Digital Banking.
- This study will be helpful to banks to further develop their banking activities in a digitalized medium keeping in mind the issues and factors that affect their customers.
- The sample size is 200. The survey was conducted through online mode and the respondents belong to various ages spread across the South India. Therefore there is scope for the difference in the factors when the number of respondents increase.

1.5 OBJECTIVES OF STUDY

1.5.1 Primary Objective

- To study the customer perception towards the Digital Banking .

1.5.2 Secondary Objectives

- To identify the factors that affects the Customer's Perception towards adapting to Digitalization in Banking sector.
- To study the influence on Digital Banking Factors among Demographic factors of the respondents
- To find out the relationship between Trust and Digital Banking interface
- To measure the impact of Trust of respondents on using Digital Banking interface.
- To comprehend the level of Knowledge on Digital Banking of respondents.
- To analyse the Customer satisfaction level of the respondents on using Digital Banking .

1.6 LIMITATIONS OF STUDY

- The size of the sample is 200 respondents. The study uses the data collected from the said sample size of respondents and analyses such data, Therefore when the sample size increases the results probably might also vary.
- The study identifies & analyses only four factors taken into consideration that affect the Customer Perception whereas there are wide range of factors that also impact Digital Banking such as Ease in Use of Digital Banking, Time saving factor etc. This leaves gap for the research in the factors not taken into consideration in the future.

CHAPTER – 2

REVIEW OF LITERATURE

2.1 REVIEW OF LITERATURE

The secondary data was taken from various review of literature.

2.1.1 Trust as a Factor affecting Customer Perception towards Digital Banking

Santiago Carbo –Valverde, (2017) found that, digitalization is an opportunity to reduce marginal costs and increase productivity in financial services. He also discusses the impact of digitalization on banking activities and challenges that imposes for financial stability.

Nitin et al (2014) found that trust, perceived ease of use and perceived cost are some of the important factors that influence the adoption behaviour of Mobile banking services by Indian consumers. The study further suggested that banks should create awareness about the Mobile banking services through Advertisements, Pamphlets, Demo Fares, and Campaigning etc. to create interest among them. The study also found that customers will adopt Mobile banking if they understand and find it easy to use.

Goyal Pandey and Batra. (2012) in their study evaluated perceptions and opinions of urban Mobile banking users. A cross sectional descriptive design was adopted with ad-hoc quota sampling for this purpose and sample comprised of 50 Mobile banking users and 50 non-users of Ghaziabad city, India. Findings indicate that 'mobile handset operability' is an important issue in Mobile banking, due to availability of various handset models (supporting different type of technology) in the market.

Kuchara Varsha,(2012)Convenience, security, easy to maintain banking transaction, curiosity, better rate and low service charges are major factors responsible for internet banking.

Alain Y. C., et al.,(2010) perceived usefulness, trust and government support all positively associated with the intention to use online banking in Vietnam. Contrary to the technology acceptance model, perceived ease of use was found to be not significant in this study.

Kenneth B. Y., et al (2010) found that Traditional service quality builds customer trust in the e-banking service. The size and reputation of the bank were found to provide structural assurance to the customer but not in the absence of traditional service quality. Web site features that give customers confidence are significant situation normality cues.

Agarwall et al (2009),Customers are influenced in their usage of e-banking services by the kind of account they hold, their age and profession, attach highest degree of usefulness to balance enquiry service among e-banking services, consider security & trust most important in affecting their satisfaction level and find slow transaction speed the most frequently faced problem while using e-banking.

Herington and Weaven (2007) .indicate that online service quality has no direct impact on customer delight, e-trust or the development of stronger relationships with customers, but it does have a relationship to e-loyalty.

Hwang.H.G et al. (2007) states that creating digital banking does not only create an delivery channel for services to the banks but also it creates value to bank and its customers.

Luarn P. and Lin H. H. (2005) Although millions of dollars have been spent on buildingmobile bankingsystems, reports on mobile banking show that potential users may not be using the systems, despite their availability. Thus, research is needed to identify the factors determining users' acceptance of mobile banking. While there has been considerable research on the technology acceptance model (TAM) that predicts whether individuals will accept and voluntarily use information systems, limitations of the TAM include the omission of an important trust-based construct in the context of electronic/mobile commerce, and the assumption that there are no barriers preventing an individual from using an IS if he or she chooses to do so.

Akinci, S., Aksoy, S. and Atilgan, E. (2004). indicate that for consumers' attitudes and adoption towards e-banking, there were significant differences between the two groups, e-banking users and non-e-banking users, with respect to demographic profiles, attitudinal properties and preferences for service delivery channels

Luarn, P. and Lin, H.H. (2005) focussed on the factors like trust loyalty in affecting the adoption of using mobile banking.

Avinandan M. and Prithwiraj N., (2003) observed that shared value is most critical to developing trust as well as relationship commitment. Communication has a moderate influence on trust, while opportunistic behaviour has significant negative effect. Also finds higher perceived trust to enhance significantly customers' commitment in online banking transaction. An important contribution concerns how trust is developed and sustained over different levels of customer relationship in online banking. The future commitment of the customers to online banking depends on perceived trust.

2.1.2 Technology as a Factor affecting Customer Perception towards Digital Banking

Smt Rajeshwari et al. (2019) in their paper explain in detail about the indian perspectives of shifting from brick and motor banks to digital banks. Their study also states that internet connection is only essential to conduct proper digital banking services.

K. Suma Valley and K. Hema Divya (2018) focuses on the analysis of the adoption level of the digital payment systems by customers. The study found that, the deployment of technology for digital payments have improved the performance of banking sector and able to achieve the motive cash less country

Ipsita Paria and Dr. Arunangshu Giri, (2018) focus on and summarizes various studies which were made by different researcher of different location across India on the impact of digitalization on rural banking system of India. The study found that, digital banking is having enormous potential to change the landscape of financial inclusion. The study also found that, with the features as low cost, easy of use digital banking

can accelerate the integration of unbanked economy to the mainstream.

Anthony Rahul Golden S,Indo, (2017) made an attempt to study the overview of digitalization in Indian Banking sector. Banks are not just a part of our lives but have a significant role in our daily lives. Thus banks always try to adopt latest technologies to enhance customer experience. The study found that, due to the adoption of this digitalization, the banking sectors in India face some remarkable changes as well as hurdles. The study also found that, as we are in the digital era, it is not possible to avoid the growth and services or digital banking.

D.V Rathee (2017) , says that revolutionary technological transformation that includes the features like anytime anywhere banking, ultra-fast response time, the usage of digital channels by avoiding or bringing down the paper-based transactions has changed the face of Indian banks.

Grabner-Krauter and Faullant(2008) investigated if technology trust has a role in influencing the usage of internet banking. One factor which influences the technology trust is whether the system is secured or not and they recommended that it is possible for banks to improve the security of the system to increase the level of consumers trust.

Amin (2007), modified the original TAM(Technology Acceptance Model)by including perceived credibility and the amount of information on mobile credit card were added to his study of mobile credit card usage intentions.

Benamati, J. S., & Serva, M. A. (2007). explains about how banks can study the profile of the customers to understand and identify who are the real customers. This will aid in understanding the factors that influence their purchasing behavior and the challenges faced by them during online transactions. Some of the determinants of consumer adoption of Mobile banking are individual acceptance of new innovation or technology, motivation, demographic profile, issues of hacking, the integrity of the password been used, data encryption and personal protection of information. They have also said that previous experience in related technology is another important factor that influences customers in developed countries.

According to Mavri and Ioannou(2006) the critical factors that affect an individual's decision to use or not to use online services are age, the difficulties of using the Internet, fear of changes in banking sector due to technological development and lack of awareness and information about products and services provided to customers through electronic delivery channels. Factors such as cost of using the Internet and speed of transactions have little impact on an individual's final decision.

Jenkins(2007) indicates that those banks were using e-banking as an assurance to their customers to maintain a competitive quality of service. To continually improve the performance of e-banking services, several core-capacities are critical:Planning new IT infrastructure,Enhancing transaction security,Providing value-added content,Delivering differentiated services,Managing customer relationships

Wu. J et all. (2006) In order to prevent exploitation of IT in internet banking there must be retention and expansion of relationships with relative older and lower IT awareness customers

Walfried M. L et all.(2005).Confirm the positive relationship between internet related innovativeness and online banking they also surprisingly show that general innovativeness is negatively related to online banking.

Reibstein, D.J.(2002). E-banking is an innovation when new information technologies merge into traditional banking services. Operating costs minimization and revenue maximization are the major drivers that boost e-banking services

Chou D. C., Chou A. Y. (2000) It is shown that Banking is an industry that is expected to undergo drastic change because of the E-commerce revolution. This article maps out the direction of the Internet revolution in banking by surveying the phenomenon's history, its technological development, and associated managerial and technological issues.

Tan, M. and Teo, T.S.H. (2000)Internet banking services are crucial elements for the long-term survival of banks in the world of electronic commerce . This research further Studies the factors of customer oriented variations that affect internet banking.

2.1.3 Knowledge as a Factor affecting Customer Perception towards Digital Banking

Anukool Manish Hyde,(2015) states that In India, people are still not fully aware of advantages of e- banking but those who are tech savvy are using e-banking successfully. There was a time when customers used to go the bank, Insurance companies, and railway station for various purposes and used to stand in long queue for hours and hours but now many people prefer e- banking to save time, energy, fuel, money etc. Important thing is that people need to be technically sound so that they can use e-banking facility properly. Banks should also generate trust in the minds of customers that e-banking is safe.

Prema and Preethi (2012), the major barrier in adopting Mobile banking services is customers' security concern. As far as preferred services are concerned checking the account balance is the most used service.

Riquelme and Rios, (2010) examined the factors that could influence the adoption of Mobile banking usage among the current users of internet banking facilities using gender as a variable. Respondents were selected using purposive sampling technique and analysis was done using the regression model. Findings suggest that social risk, social influence and perceived usefulness are the most important factors that influence consumer intention to use and adopt Mobile banking facilities among male and the influence on each factors also differs among male users.

Okumus Abdullah , (2010) stated that banks have three different groups of customers based on their attitudes towards internet banking which are named as the users of internet banking, close to the internet banking and far to the internet banking customers. The customers in each group have different demographic characteristics that affect the attitudes towards digital banking.

Yang.A.S (2009), Adoption factors included the belief that mobile banking helps fulfill personal banking needs, provides location-free conveniences, and is cost effective.

The primary factors associated with resistance included concerns over system configuration security and basic fees for mobile banking web connections. The theoretical and applied implications of these findings are discussed.

Agarwall Reeti et al. (2009). The customer's demographic characteristics and the basic elements that impact their use, perceptions and satisfaction with internet banking in India have been investigated and found to have a significant impact.

Calisir and Gumussoy,(2008) compare the consumer perception of internet banking and other banking channels and report that internet banking, ATM and phone banking substitute each other

Gounaris and Koritos (2008),compared various models in their study of the drivers of internet banking adoption decision. Similar to Pikkarainen et al.'s study, perceived usefulness was found to be one of the important adoption factors for online banking implementation.

Laforet and Li (2005) examine the extent of e-banking and m-banking in China by investigating its market status, identifying the target customers, the demographic characteristics of users and non-users, and comparing their attitudes towards e-banking adoption. They conclude that there was a low awareness of such services in China, owing to security concerns, perceived risks, low computer skills and a Chinese tradition of cash-carry banking.

Lang and Colgate (2003) found that customers who do not have IT gap, find it easier to use internet banking services therefore they have higher satisfaction levels than the ones who do not have IT skills.

The empirical study by Broderick and Vachirapornpuk (2002) also show that the level and nature of customer participation in using internet banking services has the greatest impact on the perception of service quality.

Aladwani A. M. (2001). the results of a quantitative study of the perceptions of banks' executive and IT managers and potential customers with regard to the drivers, development challenges, and expectations of online banking. The findings will be

useful for both researchers and practitioners who seek to understand the issues relevant to online banking.

Frust K et al (2000), addresses significant gaps in existing knowledge about the Internet banking landscape. Using information drawn from a survey of national bank examiners, we find that while only 20 percent of national banks offered Internet banking in Q3 1999, these transactional Internet banks accounted for almost 90 percent of national banking system assets and 84 percent of the total number of small deposit accounts. All of the largest national banks offered Internet banking, but only about 7 percent of the smallest banks offered it. Among institutions offering Internet banking, large banks are more likely than small banks to offer a broad range of services on the Internet.

2.1.4 Safety as a Factor affecting Customer Perception towards Digital Banking

Devadan, (2013) identifies the mindset and analyses the security issues in Mobile banking among the banking customers in India. The rapid technology development in Mobile technology like 2G, 3G, and 4G has become major challenges for banks and it was found that customers also feel there are chances of misuse in Mobile banking due to mobile handset theft.

Rangan, V. Kasturi and Lee, Katharine L., (2012) explores the dimensions of strategy that make for success in the market for the unbanked. It raises questions regarding the portability of the model to other countries and settings.

V. Raja and Joe. A (2012), This paper is an attempt to explore the various levels of internet banking services provided by banks using the secondary data. It also compares the traditional banking systems with net banking. It lists out the various advantages of internet banking and the successful security measures adopted by different banks for secured banking transactions. It also analyzes how E-banking can be useful for banking industry during this global financial melt down.

Sudhakar A. M., Suryanarayana, (2011) .With broadband communication technological developments and mobile phones penetration(481 million by June 2009)

into common man's life have triggered major thrust in the Banking service sector of India. With Mobile Banking- a revolutionary approach to banking transactions has created a strong connectivity between customers and the banks as both will transact with minimum cost and in minimum time. It is a timely and its cost effective services can deliver mobile money to non-banked poor people and will induce economic growth of the country. This article discusses the status of Mobile Banking in India and other countries with emphasis on data security and standards and its implication on banking sector.

Dixit Neha & Datta Saroj K. (2010) analyzed the acceptance of online banking among those customers who are the more than 35 years old and they found that security and privacy factors are main indicators on the acceptance concern among adult customers in India. Their research shows that adult customers are more reluctant to join new technologies that might contain little risk.

Khan M. S., Mahapatra S. S., (2009), Demographic analysis of data reveals that gender is hardly a bias for use and evaluation of service quality of i-banking in most of the cases across various categories of customers.. The customers are satisfied with quality of service on four dimensions such as reliability, accessibility, privacy/security, responsiveness and fulfilment, but least satisfied with the 'user-friendliness' dimension. The empirical findings not only prioritise different parameters but also provide guidelines to bankers to focus on the parameters on which they need to improve.

Jahangir and Begum, (2008) found that consumers' trust on security and privacy are both important factors in influencing the adoption of online banking in Bangladesh (another developing country), which like Vietnam, is at an early stage of online banking implementation.

Hernandez and Mazzon (2007) conducted a comprehensive study on internet banking adoption in Brazil and their results are consistent with other studies, which support the importance of security and privacy in influencing the adoption of online banking

Liao, Z.Q. and Cheung, M.T. (2002) To be competitive, banks must develop services to satisfy customers as well as delight them at the same time. Liao and Cheung

indicate that the most important quality attributes underlying perceived usefulness of e-banking are expectations of accuracy, security, network speed, user-friendliness

CHAPTER-3

RESEARCH METHODOLOGY

3.1. RESEARCH DESIGN

The research is descriptive in nature. This research identifies the factors and describes the significance of each factor over the customers' perception towards Digital Banking.

3.2 SAMPLING TECHNIQUE

The study uses Convenient Sampling Technique. Convenient Sampling Technique is a type of Non Probability Sampling Technique where the sample is taken from a group convenient to reach or collect data from.

3.3 SOURCES OF DATA

The study used both primary data and secondary data

3.3.1 Primary Data

The primary data was collected through survey from 200 respondents

3.3.2 Secondary Data

Secondary data was collect from reviewing various literature related to Banking and Digital Banking

3.4 STRUCTURE OF QUESTIONNAIRE

The questionnaire has been framed and circulated to collect primary data. The questionnaire contains

- Direct questions
- Close end questions
- Dichotomous questions
- Multiple choice questions

3.5 SAMPLE SIZE

As the number of people using digital banking products and practices are wide it is difficult to access the population. The population size is indefinite. The sampling method used in this research is Convenient Sampling technique. The sample size is 200. The respondents are from various locations spread across the country.

3.6 PERIOD OF STUDY

The study was conducted for a period of 3 months from December 2020 to February 2021.

3.7 HYPOTHESIS

H₀1: There is no significant difference on Digital Banking factors among various age groups

H₀2: There is no significant difference on Digital Banking factors between Gender

H₀3: There is no significant difference on Digital Banking factors among groups of various educational qualification

H₀4: There is no significant difference on Digital Banking factors among groups of various occupations

H₀5: There is no significant difference on Digital Banking factors among groups of various Annual income levels

H₀6: There is no significant relationship between Trust and Digital Banking Interface

H₀7: There is no significant impact of Trust over Digital Banking Interface

3.8 ANALYTICAL TOOLS

3.8.1 Software Used

SPSS software was used to analyse data. SPSS is a widely used program for statistical analysis in social science. It is also used by market researchers, health researchers, survey companies, government, education researchers, marketing

organizations, data miners, and others. The original SPSS manual (Nie, Bent & Hull, 1970) has been described as one of "sociology's most influential books" for allowing ordinary researchers to do their own statistical analysis. In addition to statistical analysis, data management (case selection, file reshaping, creating derived data) and data documentation (a metadata dictionary is stored in the datafile) are features of the base software. IBM SPSS was employed to analyse data from the survey.

3.8.2 Tests used

Percentage Analysis

Simple Percentage Analysis refers to a special kind of rates, percentage are used in making comparison between two or more series of data. A percentage is used to determine relationship between the series.

$$\text{Percentage} = \frac{\text{No of respondents}}{\text{Total no of respondents}} * 100$$

Independent T Test

The independent t-test, also called the two sample t-test, independent-samples t-test or student's t-test, is an inferential statistical test that determines whether there is a statistically significant difference between the means in two unrelated groups.

Null and alternative hypotheses for the independent t-test

$$H_0: \mu_1 = \mu_2$$

$$H_A: \mu_1 \neq \mu_2$$

To do this, we need to set a significance level (also called alpha) that allows us to either reject or accept the alternative hypothesis. Most commonly, this value is set at 0.05.

One way ANOVA

Analysis of variance, or ANOVA, is a statistical method that separates observed variance data into different components to use for additional tests. A one-way ANOVA is used for three or more groups of data, to gain information about the relationship between the dependent and independent variables.

The ANOVA test allows a comparison of more than two groups at the same time to determine whether a relationship exists between them. The result of the ANOVA formula, the F statistic (also called the F-ratio), allows for the analysis of multiple groups of data to determine the variability between samples and within samples.

The hypotheses of interest in an ANOVA are as follows:

$$H_0: \mu_1 = \mu_2 = \mu_3 \dots = \mu_k$$

H1: Means are not all equal.

Correlation Analysis

Correlation analysis is a statistical method used to evaluate the strength of relationship between two quantitative variables. A high correlation means that two or more variables have a strong relationship with each other, while a weak correlation means that the variables are hardly related. In other words, it is the process of studying the strength of that relationship with available statistical data.

Sample correlation coefficient, more specifically the Pearson Product Moment correlation coefficient. The sample correlation coefficient, denoted r , ranges between -1 and +1 and quantifies the direction and strength of the linear association between the two variables. The correlation between two variables can be positive (i.e., higher levels of one variable are associated with higher levels of the other) or negative (i.e., higher levels of one variable are associated with lower levels of the other).

The sign of the correlation coefficient indicates the direction of the association. The magnitude of the correlation coefficient indicates the strength of the association.

The formula for the sample correlation coefficient is

$$r = \frac{\text{Cov}(x, y)}{\sqrt{s_x^2 * s_y^2}}$$

Regression Analysis

Regression analysis is a set of statistical methods used for the estimation of relationships between a dependent variable and one or more independent variables. It can be utilized to assess the strength of the relationship between variables and for modeling the future relationship between them.

Regression analysis includes several variations, such as linear, multiple linear, and nonlinear. The most common models are simple linear and multiple linear. Nonlinear regression analysis is commonly used for more complicated data sets in which the dependent and independent variables show a nonlinear relationship. This study used Linear regression.

The regression equation of x on y is:

$(X - \bar{X}) = b_{xy} (Y - \bar{Y})$ where b_{xy} - the regression coefficient of x on y.

The regression equation of y on x is:

$(Y - \bar{Y}) = b_{yx} (X - \bar{X})$ where b_{yx} - the regression coefficient of y on x.

CHAPTER-4

DATA ANALYSIS AND INTERPRETATION

4.1 PERCENTAGE ANALYSIS

4.1.1 Gender Profile

The Gender of respondents have been analysed with the use of Percentage Analysis and have been interpreted in Table 4.1 which displays the Frequency and Percentage of Gender of Respondents

Table 4.1 Frequency analysis for Gender of the Respondents

Gender	Frequency	Percentile
Female	130	65
Male	70	35

(Source: Primary)

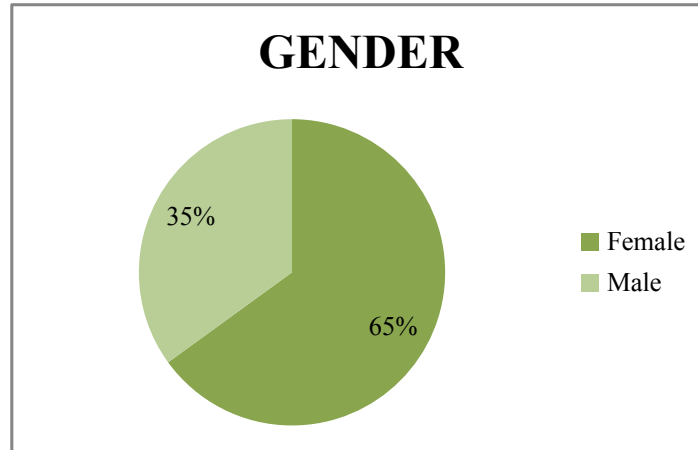


Figure 4.1 Gender Of Respondents

Interpretation

From the table 4.4 it is known that 65% of the respondents are female, 35% of the respondents are male.

Inference

Majority of the Respondents are Female

4.1.2. Age Profile

The Age of respondents have been analysed with the use of Percentage Analysis and have been interpreted in Table 4.2 which displays the Frequency and Percentage of Age of Respondents

Table 4.2 Frequency analysis for Age of the Respondents

Age	Frequency	Percentile
18-25	118	59
25-35	24	12
35-45	25	12.5
45& above	33	16.5

(Source: Primary)

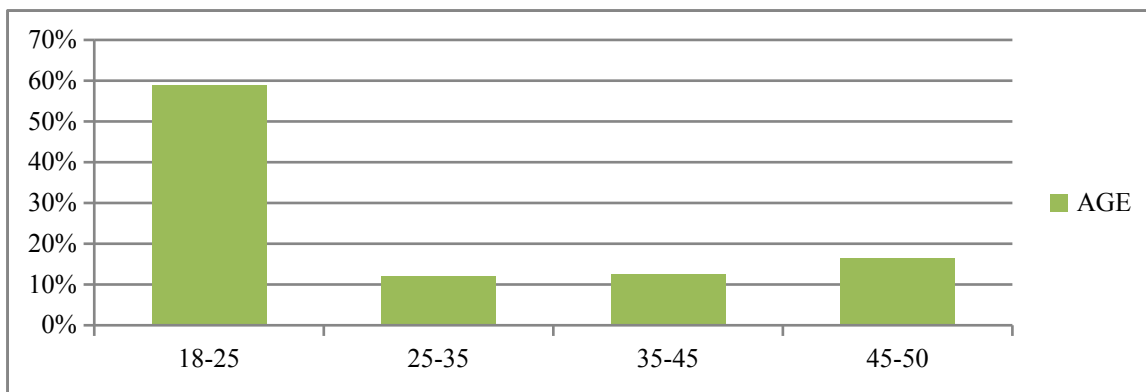


Figure 4.2 Age of respondents

Interpretation:

From the table it is evident that 59% of the respondents belonged to age group of 18-25, 16.5% of the respondents belong to age group of 45 years & above. 12.5% of the respondents are aged between 35 and 45. 12% of respondents are aged between 25 and 30

Inference

Majority of the respondents were from the age group of 18-25

4.1.3 Educational Qualification Profile

The Educational Qualification of respondents have been analysed with the use of Percentage Analysis and have been interpreted in Table 4.3 which displays the Frequency and Percentage of Educational Qualification of Respondents

Table 4.3 Frequency Analysis for Educational Qualification of the Respondents

Educational Qualification	Frequency	Percentile
Graduate	64	32
Post Graduate	120	60
Ph.D & above	16	8

(Source: Primary)

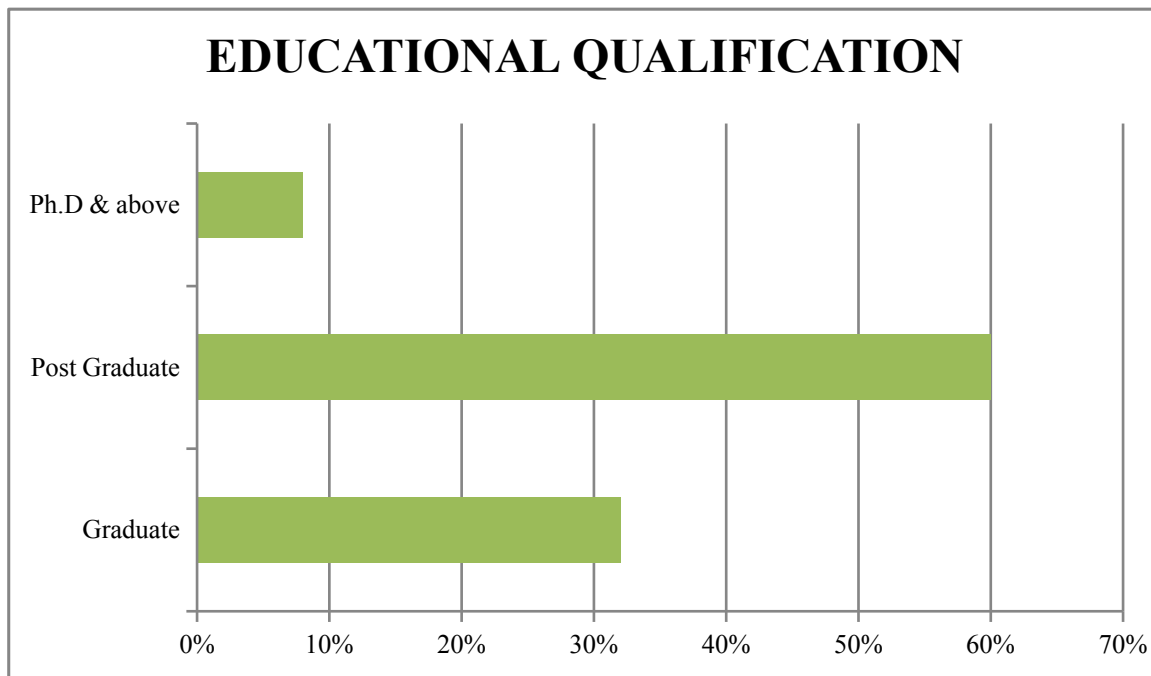


Figure 4.3 Educational Qualification of Respondents

Interpretation

From the table 4.3 it is noted that 60% of the respondents are Post graduates, 32% of the respondents are Graduates, 8% of the respondents are doctorates & above

Inference

Majority of the respondents are qualified Post Graduates

4.1.4 Occupation Profile

The Occupation of respondents have been analysed with the use of Percentage Analysis and have been interpreted in Table 4.4 which displays the Frequency and Percentage of Occupation of Respondents

Table 4.4 Frequency analysis for Occupation of the Respondents

Occupation	Frequency	Percentile
Student	84	42
Private Sector Employee	92	46

Public Sector Employee	4	2
Business	13	6.5
No Job	7	3.5

(Source: Primary)

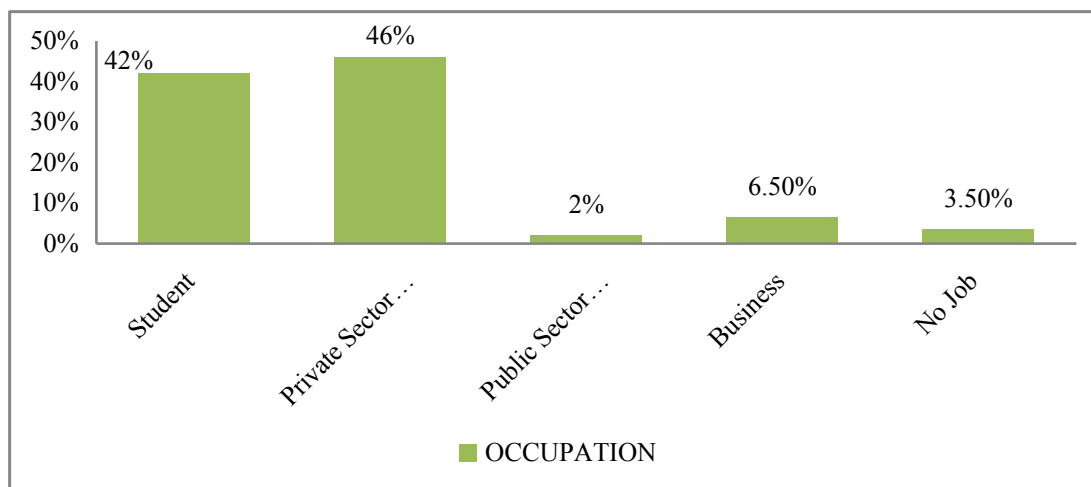


Figure 4.4 Occupation of respondents

Interpretation

From the table 4.4 it is noted that 42% of the respondents are students, 46% of the respondents are private sector employees, 2% are public sector employees, 6.5% are having their own business, 2.5% of the respondents are without jobs probably like house wives etc.

Inference

Majority of the respondents are Private Sector Employees.

4.1.5 Annual Income Profile

The Annual Income of respondents have been analysed with the use of Percentage Analysis and have been interpreted in Table 4.5 which displays the Frequency and Percentage of Annual Income of Respondents

Table 4.5 Frequency Analysis for Annual Income of the Respondents

Annual Income	Frequency	Percentile
No Income	70	35
2-3 lakhs p.a	32	16
3-5 lakhs p.a	13	6.5
5-10 lakhs p.a	49	24.5
10 lakhs & above	36	18

(Source: Primary)

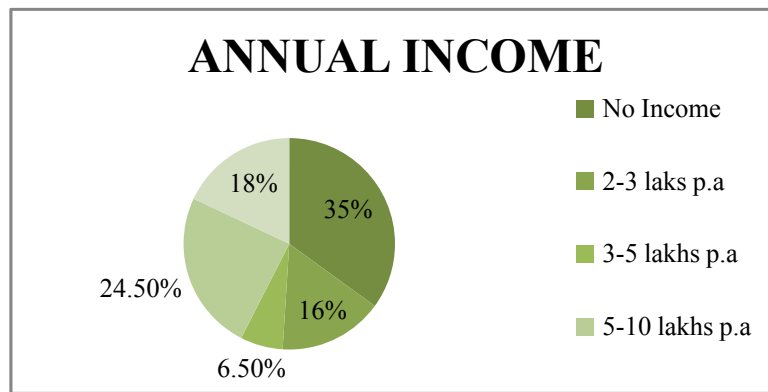


Figure 4.5 Annual Income of Respondents

Interpretation

From the table 4.5 it is known that 35% of the respondents fall under no income category, 24.5% of respondents earn up to 5-10 lakhs p.a, 18% of respondents fall under the category of income 10 lakhs p.a & above, 16% of the employees earn up to 2-3 lakhs p.a, 6.5% of the employees fall under the category of 3-5 lakhs p.a

Inference

Majority of the respondents fall under no income category which gives the possibility of that more of them are students.

4.1.6 Comprehending the level of knowledge regarding digital banking among users

The knowledge level of respondents in use of Digital Banking have been analysed and interpreted below

Interpretation

- 47 % of the respondents are fully aware of the digital banking products available in their banks
- 53% of the respondents are able to use digital banking products & services without the help of others
- 55% of the respondents possess full knowledge in using digital banking products & services
- 58% of the time the source of knowledge for digital banking is when the bank introduces it to the customers.

Inference

Less than half of the respondents are only aware of the digital banking products available and their main source of knowledge is banks. But more than half of them are aware of the usage process and grievance process.

4.1.7 Percentage of Issues faced by respondents

The issues faced by the respondents while transacting through Digital Banking have been analysed and displayed in the Figure 4.6

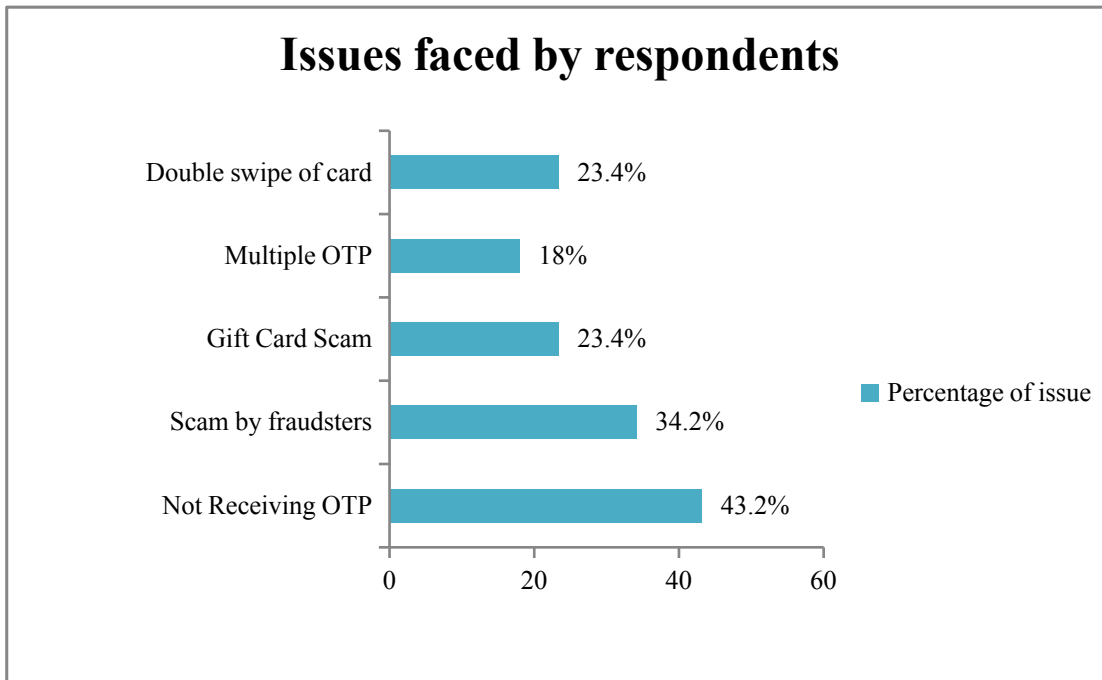


Figure 4.6 Issues faced while transacting via Digital Banking

Interpretation

From the figure 4.6 it can be noted that 43.2% of the time the issue is not receiving OTP, 34.2% the issue is scam by fraudsters, 23.4% of the time the issue is Gift card scam and double time swipe of card, 18% of the time the issue is multiple OTP

Inference

Majority of the time the issue faced by respondents is not receiving OTP while transacting through Digital Banking

4.1.8 Percentage Analysis For Customer Satisfaction levels

The Customer Satisfaction level of respondents have been analysed as Percentages and depicted as a chart in Figure 4.7

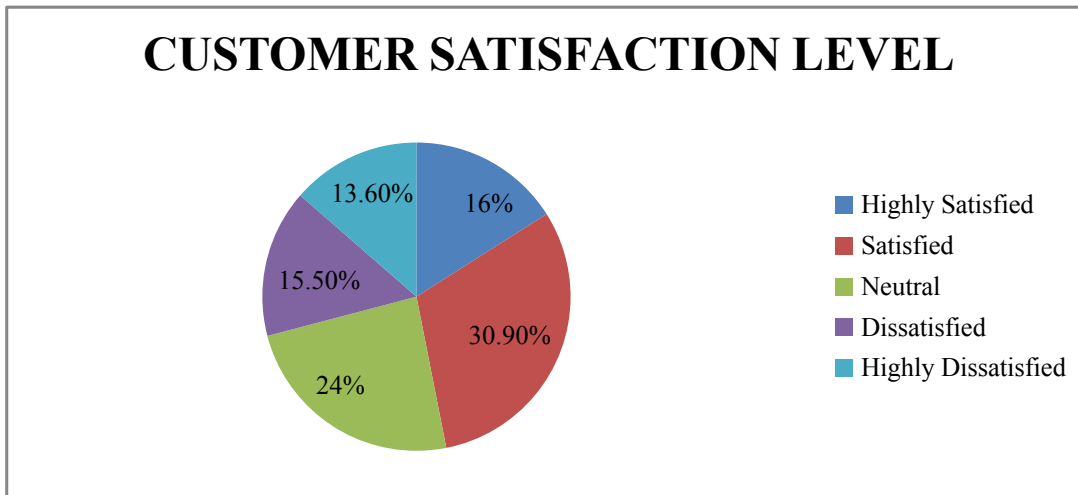


Figure 4.7 Customer Satisfaction levels on using Digital Banking

Interpretation

From the figure 4.7 it can be stated that 16% of the respondents are highly satisfied with the digital banking used by them, 30.9% of the respondents are satisfied with use of digital banking, 24% of the respondents neither satisfied nor dissatisfied. 15.5% of the respondents are dissatisfied and 13.6% of the respondents are highly dissatisfied.

Inference

Only 16% of the respondents are highly satisfied with the digital banking products and practices offered to them.

4.2 T TEST ANALYSIS

4.2.1 T test Analysis for Gender and Digital Banking Factors

T test Analysis has been conducted for the Gender of Respondents and interpreted in Table 4.6

H_0 : There is no significant influence on digital banking factors between Gender

H_1 : There is significant influence on digital banking factors between Gender

Table 4.6 T Test Analysis for Gender and Digital Banking factors

FACTORS	GENDER		F VALUE	P VALUE	Significance Level
	MALE (Mean)	FEMALE (Mean)			
Trust Factor	9.39	10.72	9.596	.002	Significant*
Technology Factor	9.94	10.57	6.117	.014	Significant*
Knowledge Factor	9.90	10.36	1.012	.316	Not Significant
Safety Factor	10	10.63	.909	.342	Not Significant

***Significance level is tested at 0.05**

(Source: Primary)

Interpretation

From the table 4.6 it is noted that the P value is less than 0.05 for Trust & Technology factor, hence the influence on Trust factor & Technology factor between gender is significant. Hence Reject H_0 for Trust & Technology factor .From the table 4.6 it is noted that the P value is greater than 0.05 for Knowledge factor and Safety factor, hence the influence on Knowledge factor & Safety factor between gender is not significant. Hence Accept H_0 for Knowledge factor & Safety Factors.

Inference

There is a difference in the significance given to digital banking factors between Gender

4.3 ANOVA ANALYSIS

4.3.1. ANOVA Analysis for Age and Digital Banking Factors

ANOVA has been utilized for the analysis of Age of Respondents & Digital Banking factors and interpreted in Table 4.7

H₀: There is no significant influence on digital banking factors among age groups

H₁: There is significant influence on digital banking among factors age groups

Table 4.7 ANOVA Analysis for Age & Digital Banking factors

FACTORS	AGE				F VALUE	P VALUE	Significance Level
	18-25 (Mean)	25-35 (Mean)	35-45 (Mean)	45 & above (Mean)			
Trust factor	9.4915	12.6250	11.08	10.6364	4.424	.005	Significant*
Technology factor	9.381	12.5	11.72	11.21	4.583	.004	Significant*
Knowledge Factor	9.32	12.5	12.64	9.814	7.015	<.001	Significant*
Safety Factor	9.305	12.83	12.08	11.37	13.394	<.001	Significant*

***Significance level is tested at 0.05**

(Source: Primary)

Interpretation

From the table 4.7 it is known that the P value is less than 0.05 for all factors, Therefore influence on Digital Banking Factors among various Age groups is Significant. Hence Reject H₀

Inference

There is a difference in the significance given to digital banking factors among various age groups

4.3.2 ANOVA Analysis for Educational Qualification

ANOVA has been utilized for the analysis of Educational Qualification of Respondents & Digital Banking factors and interpreted in Table 4.8

H₀: There is no significant influence on digital banking factors among groups of various educational qualification

H₁: There is significant influence on digital banking factors among groups of various educational qualification

Table 4.8 ANOVA Analysis for Educational Qualification

FACTORS	EDUCATIONAL QUALIFICATION			F VALUE	P VALUE	Significance Level
	Graduate (Mean)	Post Graduate (Mean)	Ph.d & Above (Mean)			
Trust Factor	9.9688	11.6875	10.2167	1.072	.344	Not Significant
Technology Factor	9.7188	12.8125	10.3583	2.775	.065	Not Significant
Knowledge factor	9.5938	12.6250	10.200	3.119	.046	Significant*
Safety Factor	9.4531	13.500	10.5167	4.851	.009	Significant*

***Significance level is tested at 0.05**

(Source: Primary)

Interpretation

From the table 4.8 it is noted that the P value for Knowledge factor & Safety Factor is less than 0.05 hence influence on Knowledge factor & Safety Factor among groups of various educational qualification is significant. Hence Reject H₀ for Knowledge & Safety factors From the table 4.8 it is noted that P value for Trust and Technology Factor is greater than 0.05 hence influence on Trust factor & Technology factor among groups of various educational qualification is not significant. Hence Accept H₀ for Trust & Technology Inference

Inference

There is a difference in the significance given to digital banking factors among various groups of educational qualification

4.3.3 ANOVA Analysis For Occupation

ANOVA has been utilized for the analysis of Occupation of Respondents & Digital Banking factors and interpreted in Table 4.9

H₀: There is no significant influence on digital banking factors among groups of various occupations

H₁: There is significant influence on digital banking among groups of various occupations

Table 4.9 ANOVA Analysis For Occupation

FACTORS	OCCUPATION					F VALUE	P VALUE	Significance
	Student (Mean)	Private sector employee (Mean)	Public sector employee (Mean)	Business (Mean)	No Job (Mean)			
Trust Factor	9.00	11.89	6.25	8.23	9.86	7.729	<.001	Significant*
Technology Factor	8.92	12.195	8.00	17.69	9.57	7.615	<.001	Significant*
Knowledge Factor	9.15	11.68	4.00	7.923	11.14	7.723	<.001	Significant*
Safety Factor	8.85	12.16	9.00	8.39	10.85	6.748	<.001	Significant*

***Significance level is tested at 0.05**

(Source: Primary)

Interpretation

From the table 4.9 it is noted that the P value is less than 0.05 for all factors, Hence the influence on Digital Banking factors among groups of various occupations is significant. Hence Reject H_0

Inference

There is a difference in the significance given to digital banking factors among various groups of Occupation

4.3.4 ANOVA Analysis For ANNUAL INCOME

ANOVA has been utilized for the analysis of Annual Income of Respondents & Digital Banking factors and interpreted in Table 4.10

H_0 : There is no significant influence on digital banking among groups of various Annual income

H_1 : There is significant influence on digital banking among groups of various Annual income

Table 4.10 ANOVA Analysis For ANNUAL INCOME

FACTORS	ANNUAL					F VALUE	P VALUE	Significance
	No Income (Mean)	2-3L p.a (Mean)	3-5 L p.a (Mean)	5-10 L p.a (Mean)	10 L p.a & above (Mean)			
Trust Factor	9.28	10.63	8.31	11.18	11.25	2.866	.024	Significant*
Technology Factor	9.10	10.82	7.08	11.84	11.53	4.971	.001	Significant*
Knowledge Factor	9.20	11.25	8.46	10.98	10.78	2.492	.044	Significant*

Safety Factor	8.96	11.63	8.08	11.37	11.72	4.367	.002	Significant*
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***Significance level is tested at 0.05**

(Source: Primary)

Interpretation

From the table 4.10 it is known that the P value of all factors is less than 0.05 for all factors, The influence on Digital Banking factors among groups of various annual income levels is significant. Hence Reject H_0

Inference

There is a difference in the significance given to digital banking factors among various groups of educational qualification

4.4 CORRELATION ANALYSIS

4.4.1 Correlation analysis between Trust and Digital banking Interface

Correlation analysis has been utilized for studying the relationship between Trust and Digital Banking Interface and the results are Tabulated in Table 4.11

H_0 : There is no significant relationship between Trust & Digital Banking Interface

H_1 : There is significant relationship between Trust & Digital Banking Interface

Table 4.11 Correlation Between Trust & Digital Banking Interface

	Digital banking interface	P Value	Significance Level
Trust factor	$r = .332^{**}$	<0.01	Significant**

****Significant at 0.01 level**

(Source: Primary)

Interpretation

From the table 4.11 it is noted that the P value is less than 0.05, Hence the relationship between trust & Digital Banking Interface is significant. Hence Reject H_0

Inference

Trust has a positive relationship in the usage of Digital Banking Interface

4.4 REGRESSION ANALYSIS

4.4.1 Regression Analysis of Trust and Digital Banking interface

Regression analysis has been utilized for studying the impact of Trust over Digital Banking Interface and the results are Tabulated in Table 4.12

H_0 : There is no significant impact of Trust over Digital Banking Interface

H_1 : There is significant Impact of Trust over Digital Banking Interface

Table 4.12 Regression Analysis Between Trust & Digital Banking Interface

Trust	Digital Banking Interface					
	R	R Square	Adjusted R Square	F Value	P Value	Significance Level
	.332	.110	.106	24.595	<.001	Significant**

****Significant at 0.01 level**

(Source: Primary)

Interpretation

From the table 4.12 it is noted that the P value is less than 0.05, hence impact of trust over Digital Banking Interface is significant. Hence Reject H_0 . Inference

Inference:

Trust has 11% impact on the users considering Digital Banking Interface

CHAPTER-5

FINDINGS & CONCLUSIONS

5.1 FINDINGS

- The factors that affect Customer Perception Towards Digital Banking have been identified as
 1. Trust
 2. Technology
 3. Knowledge
 4. Safety
- Majority of the respondents were from the age group of 18-25
- Majority of the respondents are Female
- Majority of the respondents are qualified Post Graduates
- Majority of the respondents are Private sector Employees
- Majority of the respondents fall under no income category
- Less than half of the respondents are only aware of the digital banking products available and their main source of knowledge is banks. But more than half of them are aware of the usage process and grievance process.
- Majority of the time the issue faced by respondents is not receiving OTP while transacting through Digital Banking
- Only 16% of the respondents are highly satisfied with the digital banking products and practices offered to them.
- There is a difference in the significance given to digital banking factors among various age groups
- There is a difference in the significance given to digital banking factors among various groups of educational qualification
- There is a difference in the significance given to digital banking factors among various groups of Occupations
- There is a difference in the significance given to digital banking factors among various groups of Annual Income

- There is a difference in the significance given to digital banking factors between Gender
- Trust has a positive relationship in the usage of Digital Banking Interface
- Trust has 11% impact on the users considering Digital Banking Interface

5.2 SUGGESTIONS

From the study it can be suggested that

- Near about half of the respondents though qualified as a graduate are unaware about few Digital Banking Products and Services. Hence Banks can bring about measures that educate the Indian mass to adapt Digital Banking .
- From the study it was evident that Trust impacts the use of Digital Banking Interface. So it can be suggested that banks build trust amongst its customers in order to widen the scope of Functioning of Digital Banking.
- It can be suggested for Banks to also reach out to various Demographics in order to grow the sector
- From the study it was evident that only 43% of the respondents feel that the Digital Banking functions provided by their bank are those equal to the quality of global standards. Hence Banks can work on improving the quality to match Global standards

5.3 CONCLUSION

From analysis of the data collected the factors affecting customer perception towards digital banking have been identified. Various demographic factors such as age, education level, income level, profession , have been analysed and it is concluded that demographic factors exert a significant influence over digital banking factors. There also exists a significant relationship between trust among users and digital banking interface. Therefore trust has a significant impact on digital banking usage and interface. The knowledge of current users of digital banking have been interpreted and it is known that around 50% of the users are possessing full knowledge regarding the usage of digital banking and that too the main source of such knowledge is when the bank educates its customers. The most common issue faced by the digital banking users are not receiving the OTP during the transactions.

The level of satisfaction of using digital banking services have been analysed and it has been noted from the respondents that the current banks are trying to adopt with the emerging trends in the global criteria, but in general Indian banks are a bit far ahead from the global banking system. Summing up in general we can conclude that though digital banking faces struggles and challenges the users are adopting along with the digital banking process.

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ANNEXURE – A

QUESTIONNAIRE

To study the influence of digital banking on demographic factors

1. Age

- a) 18-25
- b) 25-35
- c) 35-45
- d) Above 45

2. Gender

- a) Female
- b) Male

3. Educational qualification

- a) High school
- b) Graduate
- c) Post graduate
- d) Phd and above. thanks

4. Occupation

- a) Student
- b) Private sector employee
- c) Public sector employee
- d) Business
- e) No job

5. Annual income

- a) 2-3 lakhs p.a
- b) 3-5 lakhs p.a

- c) 5-10 lakhs p.a
- d) 10 lakhs p.a & more
- e) No income

6. Category Of Bank A/C

- a) Private bank
- b) Public bank

To identify the factors that affects the customer's perception of adapting to digitalization in banking sector, categorising them based on the perception Of respondents.

7. How frequently do you use digital banking products provided by the bank?

- a) Less frequently
- b) Frequently
- c) Neutral
- d) More frequently
- e) Most frequently

8. which product of digital banking do you use frequently?.

Interface	Less Frequently	Frequently	Neutral	More frequently	Most frequently
Mobile Banking					
E.Banking					
UPI					
Cards					

9. How likely do you agree that the adapted technology by your bank on a scale as compared to Global standards of technology adoption.

- a) Strongly disagree
- b) Disagree
- c) Neutral
- d) Agree
- e) Strongly agree

10. What factors prompted you to use digital banking?

- a) Trust on bank
- b) Technology used by bank
- c) Awareness of digital banking
- d) Security of using digital banking

11.(The respondents are asked to record their level of agreement to the below statements)

(Trust factor)

Factors	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
My bank provides high quality digital banking services when compared to leaders in the industry.					

I can rely that my bank provides best digital banking services.					
My bank provides credible reasons in case of money lost and help me recover it					
I believe that my bank is a well established brand in digital banking field.					

Factor of technology

Factors	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The digital banking services offered in my bank are highly innovative as of those compared to leaders in the industry.					
I agree that my bank provides quality of technology in digital banking services.					

My bank updates its digital banking interface from time to time.					
MY bank's technology ensures that I complete your transactions without delay.					

Security factor

Factors	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The digital banking services offered in my bank is highly safe & secure as of those compared to leaders in the industry.					
I agree that my bank provides safe encryption of customer database.					
My bank provides authentication to every transactions regardless of volume.					

I agree that my bank performs its functions in digital banking interface with utmost integrity.					
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Knowledge factor

Factors	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I am fully aware of the digital banking products offered in my bank					
I am able to use digital banking products without the help of others					
I possess full knowledge regarding the usage and what to do in case of misusing digital banking products.					
The main source of knowledge of digital banking products is when my bank proposes it to me					

12.To analyse the customer satisfaction levels of respondents using digital banking .

Factors	Highly satisfied	Satisfied	Neutral	Dissatisfied	Highly Dissatisfied
I am satisfied in using digital banking products of my bank.					
The response from my bank in case of grievance or registering complaints is satisfactory					
The grievance redressal process in my bank is satisfactory					

13. How likely will you refer digital banking services of your bank to a known person?

- a) Most unlikely
- b) Unlikely
- c) Neutral
- d) Likely
- e) Most unlikely

14. How frequently do you face issues while transferring money through the digital banking ?

- a) Less frequently
- b) Frequently
- c) Neutral
- d) More frequently
- e) Most frequently

15. What are the common problems faced by yourself by losing money?

- a) Scam by fraudsters
- b) Not receiving OTP
- c) Gift card scam in UPI
- d) Multiple OTP
- e) Double card swipe

16. I agree that my bank quickly resolves issues related to digital transactions

- a) Strongly disagree
- b) Disagree
- c) Neutral
- d) Agree
- e) Strongly agree

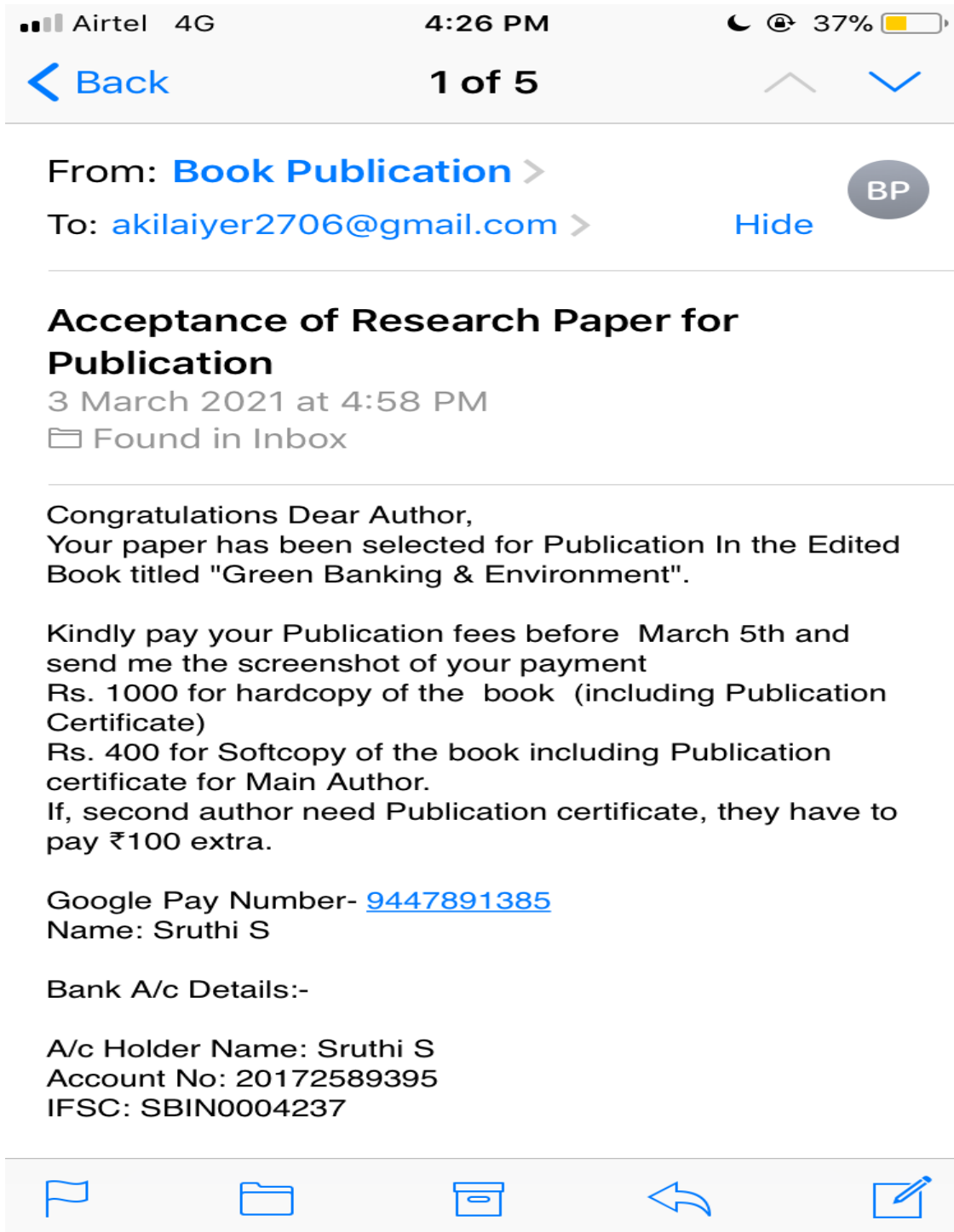
17. Overall how satisfactory are you in digital banking services products of your bank?

- a) Highly satisfactory
- b) Satisfactory
- c) Neutral
- d) Unsatisfactory
- e) Highly Unsatisfactory

18. How willing are you to adapt to new and emerging trends in the forthcoming digital banking field?

- a) Highly willing
- b) Willing
- c) Neutral
- d) Unwilling
- e) Highly Unwilling

ANNEXURE –B



The below is the book Chapter published by Archers Publications

A STUDY ON THE INFLUENCE OF DEMOGRAPHIC FACTORS ON USING DIGITAL BANKING PRODUCTS

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Abstract

The early offset of digitilisation in banking can be traced to 1960, the use of modem also helped in utilization of digital banking. Digital banking has been evolving in the years and now has become the future of bending. Various Technological advancements have been inherited by the digital banking products and practices yet it faces many obstacles and challenges in the successful implementation of a full flexed digital banking system to replace traditional banking. Many factors have been identified that affect the digital banking sector such as trust, technology, safety etc. This study identifies the influence of demographic factors on the usage of digital banking by categorising the factors such as Age, Gender, Profession, Education level, Annual Income. The research is descriptive research, Convenient sampling technique has been implemented and primary data has been collected from 200 respondents. Statistical analysis tools such as One Way ANOVA(Analysis Of Variance) & Independent T Test have been used. From Analysis it is found that demographic factors though categorised into many variables such as age, gender etc. do exert a significant influence on the usage of digital banking products . From this study it can be suggested that while the banks strive to identify measures to improve digital banking services it must also take into account the demographic factors to a certain extent for consideration as they too exert significant influence on usage of digital banking products.

Keywords : *Digital banking, Demographic factors, Cards, UPI(Unified Payments Interface), Mobile Banking, E- Banking*

1.INTRODUCTION

Technology has brought digitalisation of every sector including the banking sector which is the most important sector in any country. Like any sector digital banking sector too faces challenges ahead. The most common products of Digital Banking have been identified as Mobile Banking, E- Banking, UPI , Cards.

1.1 MOBILE BANKING :

In 2002 Mobile banking was started in India by way of SMS Banking (Dikit.S.V et all, 2012)and with the introduction of smart phones mobile banking has seen a huge increase in the no of users. Mobile banking has now become one of the commonly used payment systems

1.2 E- BANKING :

E-banking arrived at 1990 in India. ICICI was the first bank to develop a e-banking interface in 1996 (Jhumkee lyengar & Manisha Belvalkar,2010) . Now e-banking has seen various developments from online payment of bills to transacting huge sum of money through the internet.

1.3 UPI

Also known as the Unified Payment System, UPI started its operation in India from early 2016. It helped transact around Rs.17.29 lakh crore in the first 37 months of its operation. Now various software technologies have developed UPI interfaces.

1.4 CARDS

They are the monetary instruments used for the various transactions of money. In 1998 Vijaya Bank introduced Master Card to the Indian users. Now cards have become from charge plates to Contactless cards.

2. REVIEW OF LITERATURE

Deepjyoti Choudhurn& Dibyojyoti Bhattacharjee (2015)The results from the study showed that location of residence, number of earners in the family, educational level,

frequency of banking transaction and marital status had significantly contributed towards the adoption of electronic banking among salaried employees. The results derived from the study can be used by banking organizations and managers for proper market analysis and strategy development as far as electronic banking is concerned.

Chavoshi, et al.(2013)posited that “the customer is the only source of future growth”. Due to the high costs involved in increasing the customer base, one of the main goals of banks and other financial services providers, which operate through the internet, should be to develop customer loyalty in order to improve their results”

The assertion by Ofori-Dwumfuo & G, Dankwah B (2013)that “one of the greatest challenges to the adoption of internet banking is the cultural reluctance to interface with business electronically”,

Mutengezanwa M, & Mauchi N (2013)in their study have proved thar there is an existence of a relationship between internet banking adoption and educational level, occupation, age and income.

Couto JP, et all. (2013),found that customers with higher education are less likely to adopt internet banking as a cautious behaviour towards internet banking. \

Izogo E, & Nnaemeka O (2012) have studied that “demographic factors such as gender, religion and income do not have significant effect on customers’ adoption and usage of e-banking”,

According to Peotta, Holtz, et all. (2011) most of the attacks directed at online banking systems target the user, focusing on obtaining authentication and identification information through the use of social engineering and compromising the user’s internet banking access device

Redlinghuis A, & Rensleigh C (2010), have stated in their study that In other words, education is a critical factor with regard to internet banking. Education should be a driving force from both parties, namely financial institutions as well as the individuals that make use of internet banking services and products

3. RESEARCH METHODOLOGY

This paper is descriptive in nature. Both primary data and secondary data have been used. Convenient Sampling Technique has been used . Data has been collected from 200 respondents. Statistical tools such as One way ANOVA & Independent T Test have been used to analyse data.

4. DATA INTERPRETATION & ANALYSIS

4.1: FREQUENCY ANALYSIS OF DEMOGRAPHIC FACTORS OF RESPONDENTS

The various demographic factors of the respondents have been Analysed using percentages;

Table 4.1: Frequency Analysis Of Demographic profile of respondents

Factors	Frequency	Percentile
Age		
18-25	118	59
25-35	24	12
35-45	25	12.5
45& above	33	16.5
Gender		
Male	70	35
Female	130	65
Educational Qualification		
Graduate	64	32
Post Graduate	120	60
Ph.d & above	16	8

Profession		
Student	84	42
Private Sector Employee	92	46
Public Sector Employee	4	2
Entrepreneur	13	6.5
No Job	7	3.5
Income level		
No income	70	35
2-3 lakhs p.a	32	16
3-5 lakhs p.a	13	6.5
5-10 lakhs p.a	49	24.5
10 lakhs p.a & above	36	18

Inference:

59% of the respondents fall under the category of age 18-25. 65% of respondents are women.. The educational qualification of 60% of the respondents is Post graduation. 46% of the respondents are private sector employees 35% Of the respondents fall under no Income category

4.2 ANOVA FOR DIGITAL BANKING PRODUCTS AND AGE FACTORS

H₀: There is no significant influence on usage of digital banking products among age groups

H₁: There is significant influence on usage of digital banking products among age groups

Table 4.2 ANOVA for Digital Banking Products and Age factor

VARIABLES	AGE				F VALUE	P VALUE	Significance
	10-25 Mean	25-35 Mean	35-45 Mean	45 & abov e Mean			

Mobile Banking	3.32	2.33	2.45	2.45	5.285	.002*	Significant
E Banking	2.34	2.42	3.32	3.06	4.878	.003*	Significant
UPI	2.45	4.21	3.52	3.09	13.394	<.001*	Significant
Cards	3.15	4.00	3.28	2.67	3.671	.013*	Significant

***Significance is tested at 0.05**

Inference

From table 4.2 it is inferred that the influence on usage of digital banking products among of various age groups is significant. Therefore Reject H_0

4.3 ANOVA FOR DIGITAL BANKING PRODUCTS AND GENDER

H_0 : There is no significant influence on usage of digital banking products between gender

H_1 : There is significant influence on usage of digital banking products between gender

Table 4.3 : T Test Analysis For Digital Banking Products and Gender

VARIABLES	Gender		F VALUE	P VALUE	Significance
	MALE (Mean)	FEMALE (Mean)			
Mobile Banking	2.80	3.16	1.369	.243	Not Significant
E Banking	2.59	2.59	4.118	.044*	Significant
UPI	2.76	2.98	.003	.960	Not Significant
Cards	3.23	3.17	8.629	.004*	Significant

***The level of significance is tested at 0.05**

Inference

From table 4.3 it can be inferred that the influence on Mobile banking and UPI between Gender is not significant, Therefore Accept H_0 . From table 4.3 it can also be inferred that the influence on E-banking and Cards between Gender is significant. Therefore Reject H_0

4.4 ANOVA FOR DIGITAL BANKING PRODUCTS AND EDUCATION LEVEL

H_0 : There is no significant influence on usage of digital banking products among groups of various Education levels

H_1 : There is significant influence on usage of digital banking products among groups of various Education levels

Table 4.4 : ANOVA for Digital Banking Products and Educational levels

Variables	Education level			F VALUE	P VALUE	SIGNIFICANCE
	Graduate S.D	Post graduate S.D	Ph.d & above S.D			
Mobile Banking	2.84	3.00	3.14	.844	.432	Not Significant
E Banking	2.25	3.63	2.63	6.260	.002*	Significant
UPI	3.09	3.56	2.71	3.153	.045*	Significant
Cards	3.48	3.44	3.00	3.19	.101	Not Significant

***The level of significance is tested at 0.05**

Inference

From table 4.4 it is inferred that the influence on usage of Mobile Banking and cards among groups of various educational levels are not significant. Therefore Accept H_0

From table 4.4 it is also inferred that the influence on usage of E-Banking & UPI among groups of various educational levels are significant. Therefore Reject H_0

4.5 : ANOVA FOR DIGITAL BANKING PRODUCTS AND OCCUPATIONS

H_0 : There is no significant influence on usage of digital banking products among groups of various occupations

H_1 : There is significant influence on usage of digital banking products among groups of various occupation

Table 4.5: ANOVA for Digital Banking Products and Occupations of respondents

VARIABLES	OCCUPATION					F VALUE	P VALUE	Significance
	Student Mean	Private sector employee Mean	Public sector employee Mean	Business Mean	No Job Mean			
Mobile Banking	2.94	3.23	2.50	2.77	2.43	1.001	.408	Not Significant
E Banking	2.35	2.78	1.75	3.23	2.29	2.118	.080	Not Significant
UPI	2.77	3.10	2.50	2.54	2.71	.836	.504	Not Significant
Cards	3.35	1.75	3.26	2.54	2.43	2.194	.071	Not Significant

***The level of significance is tested at 0.05**

Inference

From table 4.5 it is inferred that the influence on usage of digital banking products among various groups of occupations are not significant. Therefore Accept H_0

4.6 : ANOVA FOR DIGITAL BANKING PRODUCTS AND INCOME LEVELS

H_0 : There is no significant influence on usage of digital banking products among groups of various income levels

H_1 : There is significant influence on usage of digital banking products among groups of various income levels

Table 4.6 ANOVA for Digital Banking Products and Income Levels

VARIABLES	ANNUAL INCOME LEVELS					F VALUE	P VALUE	Significance
	No Income Mean	2-3 L p.a Mean	3-5 L p.a Mean	5-10 L p.a Mean	10 L p.a & above Mean			
Mobile Banking	3.10	2.22	2.38	3.94	2.64	9.696	<.001*	Significant
E Banking	2.34	2.28	2.15	2.71	3.33	3.866	.005*	Significant
UPI	1.218	3.47	2.62	2.35	3.25	3.617	.007*	Significant
Cards	3.46	3.56	2.31	3.06	2.83	2.716	.031*	Significant

***The level of significance is tested at 0.05**

Inference :

From table 4.6 it is inferred that the influence on usage of digital banking products among various groups of income levels are significant. Therefore Reject H_0

5. CONCLUSION

From the analysis it is evident that demographic factors exert a significant influence over digital banking usage. The most influential factors have been identified as age and Income level and the least influential factors have been identified as Gender and category of bank account of users. The moderate influential factors have been identified as Income level, Education level and profession of users. Therefore in general it is evident that demographic factors hold a significant role in influencing digital banking and its usage.

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ANNEXURE – C

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A STUDY ON THE FACTORS IMPACTING THE USAGE OF DIGITAL BANKING

PRODUCTS

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ABSTRACT

Technology today has inculcated the use of various products and practices. Technology also brought about various changes in Banking Sector. The world sees a wide range of Digital Banking Products and services. Yet the current users of Digital Banking are affected by a list of factors. This study identifies the factors as Trust factor, Technology factor, Knowledge factor, Security factor and their level of impact on the users on Digital Banking Products. The four Digital Banking Products taken for the study are Cards, UPI, Mobile Banking & E- Banking. The research is descriptive in nature and data has been collected from 200 users of Digital Banking. Convenient sampling technique was employed in collecting samples. Frequency Analysis, Correlation Analysis, Regression Analysis, have been utilised to interpret data. From Analysis it is found that all the before said factors have a significant impact on the usage of Digital Banking Products. Also from analysis it has been found that the most impacting factor among respondents is Knowledge on Digital Banking and the least factor impacting the Digital Banking among the respondents has been identified as the factor of Security. Therefore it can be suggested to banks that to increase safety precautions and measures in order to improve the standard of Digital Banking interface available to its customers.

KEYWORDS: Digital Banking Products, Technology, Trust, Knowledge, Security, Interface

I. INTRODUCTION

The various factors that affect the usage of Digital Banking Products include Trust of customers, Safety in using Digital Banking, Knowledge in Using Digital Banking Factors, Technology Factor

1.1 Trust factor

Trust can play an important role in boosting the level of adoption of Internet banking among online customers. Trust can take various forms in various relationships. (Alsajjan and Dennis, 2010). Trust on bank is what makes a person into the user of a bank's various services. Such is the importance of trust for a banker and he must ensure to build a strong relationship of trust between his customers.

1.2 Technology Factor

The technology a bank uses in providing its internet banking services must be of utmost comfort and convenience in order to be used by the customers of a bank. Ling, G. et al. (2015) emphasized the importance of application of Internet banking. According to this study the main problem the large number of customers are not willing to use the Internet banking services offered. In this study the authors decided five factors which can influence customer satisfaction toward Internet banking include convenience and speed, security and privacy, web design and content, and service quality.

1.3 Knowledge on Digital Banking

For any person to use Digitalised Banking products one must be aware and possess knowledge on using such products. Knowledge on using the internet, Being aware about the current regulations, Most important knowledge on handling a system or android mobile phone are all such variables. Customers who have experience on the use of

computers will be easier in the use of e-banking, compared with customers who do not have experience on the use of computer (Henny Medyawati, et. all. 2011).

1.4 Safety in using Digital Banking:

The level of safety, security and privacy present in using banking services on a Digital interface highly impacts the banks' customers decision on even to the extreme of whether to adapt to the Digital Banking . Security Privacy is an indicator used to measure the perceived security and privacy of e-banking (Taylor. S and Todd. P.A 1985). It consists of five elements namely the financial security of e-banking, the trust which individuals have in the service, privacy protection of the customer, security level password and the presence of a third party to validate the Bank's identity

II.ABBREVIATIONS

UPI-Unified Payments Interface

E-Banking-Electronic Banking

III. REVIEW OF LITERATURE .

Adam Ahmed Musa Hamid et al., (2018) in this research paper, showed that the banking service over the internet has a positive impact on customer satisfaction and also focus on spreading the knowledge of the internet banking services to the customers

Herington and Weaven (2007) .indicate that online service quality has no direct impact on customer delight, e-trust or the development of stronger relationships with customers, but it does have a relationship to e-loyalty.

Jenkins (2007) indicates that those banks were using e-banking as an assurance to their customers to maintain a competitive quality of service. To continually improve the performance of e-banking services, several core-capacities are critical: Planning new IT infrastructure, Enhancing transaction security, Providing value-added content ,Delivering differentiated services, Managing customer relationships

According to Mavri and Ioannou(2006) the critical factors that affect an individual's decision to use or not to use online services are age, the difficulties of using the Internet, fear of changes in banking sector due to technological development and lack of awareness and information about products and services provided to customers through electronic delivery channels. Factors such as cost of using the Internet and speed of transactions have little impact on an individual's final decision

Customers can also find some difficulties with the service and personal computers and the Internet (such as security and safety concerns complexity, and distrust of regulations and standards, and traditional principles) Raphael K Akamavi (2005).

Several studies including Jih et al. (2005) indicate that user adoption of e-banking is affected by perceived security. This supports a view of security as crucial to the overall usability of e-banking systems

According to Koufaris and Hampton-Sosa, (2004), the tendency of customers to make a risky decision in online activities (for example disclosing credit card information) depends on their assessment of the sellers' security and their examination of the trust of the electronic commerce system

As Koller (1988) wrote, the level of the significance of a decision specifies the influence of the potential risk. It is obvious that the acceptance of electronic trading is a long-term important decision for most of the customers and that is the reason why the role of risking is so important here

IV. RESEARCH METHODOLOGY

4.1 Population & Sample size

The population is indefinite. Sample size is composed of 200 respondents. Convenient Sampling technique was employed. The respondents belong to various age groups and various occupations.

4.2 Data

The research uses both Primary data & Secondary Data. Primary data was collected by survey through questionnaire and Secondary data from various literature review.

4.3 Theoretical Framework

The dependent factors are Trust, Technology, Safety, Knowledge on Digital Banking. The independent Factors include Digital Banking products such as Cards, UPI, E-Banking & Mobile Banking. The variables to study Trust were identified as Reliability, Credibility, Brand, Accountability. The variables to study Technology were identified

as Innovation, Quality, Ease in use, Time of transaction. The variables to study Knowledge were identified as Source of knowledge, Knowledge about the products available, Preference to use, Knowledge to report any issues in use. The variables to study Safety were identified as security in using, Authentication of transactions, Integrity, Encryption Of Data.

4.4 Hypothesis

H₀₁: There is no significant relationship between Trust & usage of Digital Banking Products

H₀₂: There is no significant impact of Trust over the usage of Digital Banking Products

H₀₃: There is no significant relationship between Technology & usage of Digital Banking Products

H₀₄: There is no significant impact of Technology over the usage of Digital Banking Products

H₀₅: There is no significant relationship between Knowledge & usage of Digital Banking Products

H₀₆: There is no significant impact of Knowledge over the usage of Digital Banking Products

H₀₇: There is no significant relationship between Security & usage of Digital Banking Products

H₀₈: There is no significant impact of Security over the usage of Digital Banking Products

V. RESULTS

5.1 Demographic Profile

Factors	Frequency	Percentile
Age		
18-25	118	59
25-35	24	12
35-45	25	12.5
45& above	33	16.5
Gender		
Male	70	35
Female	130	65
Educational Qualification		
Graduate	64	32
Post Graduate	120	60
Ph.d & above	16	8
Occupation		
Student	84	42
Private Sector Employee	92	46
Public Sector Employee	4	2
Business	13	6.5
No Job	7	3.5
Annual Income		
No income	70	35
2-3 lakhs p.a	32	16
3-5 lakhs p.a	13	6.5
5-10 lakhs p.a	49	24.5
10 lakhs p.a & above	36	18

Table 5.1 Frequency analysis of Demographic Factors

Inference

59 % of the Respondents fall under the age of 18-25. 65% of the respondents are women. 60% of the respondents are Post graduates. 46% of the respondents are private sector employees. The majority recorded annual income level of the respondents are 5-10 Lakhs p.a.

5.2 Correlation between Trust and usage of Digital banking Products

H₀: There is no significant relationship between Trust & usage of Digital Banking Products

H₁: There is significant relationship between Trust & usage of Digital Banking Products

	Digital banking Products
Trust factor	r = .332**

*Significant at 0.01 level

Table 5.2 Correlation Analysis of Trust & usage of Digital Banking Products

Inference

The relationship between Trust and usage of Digital Banking Products is significant. Hence Reject H₀

5.3. Regression of Trust and usage on Digital Banking Products

H₀: There is no significant impact of Trust on the usage of Digital Banking Products

H₁: There is significant Impact of Trust on the usage of Digital Banking Products

Trust	Digital Banking Products					
	R	R Square	Adjusted R Square	F Value	P Value	Significance
	.332	.110	.106	24.595	<.001	Significant

*Significant at 0.01 level

Table 5.3 Regression Analysis between Trust & usage of Digital Banking Products

Inference

The impact of Trust over usage of Digital Banking Products is Significant. Hence Reject H₀. Also Trust has 11% Significant Impact over the usage of Digital Banking Products

5.4 Correlation between Knowledge and usage of Digital banking products

H₀: There is no significant relationship between Knowledge & usage of Digital Banking Products

H₁: There is significant relationship between Knowledge & usage of Digital Banking Products

	Digital banking Products
Knowledge on Digital Banking	r = .404**

*Significant at 0.01 level

Table 5.4 Correlation Analysis of Knowledge & usage of Digital Banking Products

Inference

The relationship between Knowledge on Digital Banking and usage of Digital Banking Products is significant. Hence Reject H₀

5.5. Regression of Knowledge and usage of Digital Banking interface

H₀: There is no significant Impact of Knowledge on the usage of Digital Banking Products

H₁: There is significant Impact of Knowledge on the usage of Digital Banking Products

Knowledge on Digital Banking	Digital Banking Products					
	R	R Square	Adjusted R Square	F Value	P Value	Significance
	.404	.163	.159	38.693	<.001	Significant

*Significant at 0.01 level

Table 5.5 Regression Analysis between Trust & usage of Digital Banking Products

Inference

The impact of Knowledge on Digital Banking over usage of Digital Banking Products is Significant. Hence Reject H₀. Also Knowledge on Digital Banking has 16.3% Significant Impact over the usage of Digital Banking Products

5.6 Correlation between Technology and usage of Digital banking products

H₀: There is no significant relationship between Technology & usage of Digital Banking Products

H₁: There is significant relationship between Technology & usage of Digital Banking Products

	Digital banking Products
Technology factor	$r = .357^{**}$

*Significant at 0.01 level

Table 5.6 Correlation Analysis of Technology & usage of Digital Banking Products

Inference

The relationship between Technology factor and usage of Digital Banking Products is significant. Hence Reject H_0

5.7. Regression of Technology factor and usage of Digital Banking interface

H_0 : There is no significant Impact of Technology on the usage of Digital Banking Products

H_1 : There is significant Impact of Technology on the usage of Digital Banking Products

Technology factor	Digital Banking Interface					
	R	R Square	Adjusted R Square	F Value	P Value	Significance
	.357	.128	.123	28.956	<.001	Significant

*Significant at 0.01 level

Table 5.7 Regression Analysis between Technology & usage of Digital Banking Products

Inference:

The impact of Technology over usage of Digital Banking Products is Significant. Hence Reject H_0 . Also Technology has 12.8% Significant Impact over the usage of Digital Banking Products

5.8. Correlation between Security and usage of Digital banking products

H_0 : There is no significant relationship between Security & usage of Digital Banking Products

H_1 : There is significant relationship between Security & usage of Digital Banking Products

	Digital banking interface
Security factor	$r = .290^{**}$

*Significant at 0.01 level

Table 5.8 Correlation Analysis of Security & usage of Digital Banking Products

Inference

The relationship between Security factor and usage of Digital Banking Products is significant. Hence Reject H_0

5.9. Regression of Security factor and usage of Digital Banking interface

H_0 : There is no significant Impact of Security on the usage of Digital Banking Products

H_1 : There is significant Impact of Security on the usage of Digital Banking Products

Security factor	Digital Banking Interface					
	R	R Square	Adjusted R Square	F Value	P Value	Significance
	.290	.084	.080	18.220	<.001	Significant

*Significant at 0.01 level

Table 5.9 Regression Analysis between Security & usage of Digital Banking Products

Inference

The impact of Security over usage of Digital Banking Products is Significant. Hence Reject H_0 . Also Security has 8.4% Significant Impact over the usage of Digital Banking Products

VI. CONCLUSION

‘From the study the factors impacting the usage of digital banking products have been identified. The level of impact also have been analysed. From analysis it has been found that Knowledge on using digital banking products and services is the most impacting factor, followed by Trust and Technology. The least impacting factor among

respondents is Security factor. The banks need to concentrate more on educating their customers as from the analysis knowledge is seemed to impact the most. The banks also should focus on enhancing trust and loyalty amongst its customers to be efficient and unique amidst others in the industry. m The factors identified in the study are few among the vast factors impacting the use of Digital Banking by the customers. The level of impact of these four factors have been identified in this study . But there is still a wide scope of factors that possibly impact the use of Digital Banking Products.

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