



## Customers' Perception On Challenges Of Digital Banking System With Reference To Select Public Sector Banks In Karnataka

Dr. R. Kasilingam<sup>1\*</sup>, Ms. Thanuja. V<sup>2</sup>

<sup>1\*</sup>Research Supervisor, Assistant Professor of Commerce, PG and Research Department of Commerce, TKG Arts College, Vriddachalam

<sup>2</sup>Research Scholar, Annamalai University, Annamalai Nagar

**\*Corresponding Author:** Dr. R. Kasilingam

\*Research Supervisor, Assistant Professor of Commerce, PG and Research Department of Commerce, TKG Arts College, Vriddachalam

<b>Article History</b>	<b>Abstract</b>
Received: 18/10/2023 Accepted: 10/11/2023 Published: 28/11/2023	<p><i>One of the biggest innovations in the banking sector throughout its lengthy history is digital banking. Notwithstanding the numerous advantages that consumers derive from online banking, there exist several significant apprehensions and obstacles for marketers operating within the online banking industry. The main obstacles that internet banking marketers must overcome to thrive in this industry are minimal marketing budgets, traditional banking habits, security, technological problems, and transaction difficulties. As time has gone on, digital banking has emerged and is proving to be a success for the banking industry. The idea of digital banking is widely accepted in today's world, and it quickly gained popularity as a method of conducting business. The financial services industry is being redefined by the irresistible force of digital. The goal of the current study is to identify the variations in issues related to digital banking. The 600 participants in the study were chosen at random from among those who used digital banking services in Karnataka. The study identifies the issues with digital banking services that clients of various public sector banks encounter. Primary data gathered through questionnaire served as the foundation for the study. The data has been analyzed and interpreted using SPSS. Chi-square analysis and the t-test have been applied.</i></p>
CC License CC-BY-NC-SA 4.0	<b>KeyWords:</b> Digital Banking, NEFT, RTGS, Technological Problems, Digital Payments

### 1.1 Introduction

The financial services industry is digitizing, and a large number of non-bank business owners are providing back-office and customer-facing financial technology services and solutions. As a competitive digital alternative to traditional banks, which serve a sizeable number of under banked individuals, this revolution has an impact on developing market economies. The modern technology revolution is currently having an impact on the financial services sector, affecting companies such as retail, social media marketing, and transportation that serve both worldwide business-to-business and consumer needs. These days, digital financial institutions are dispersed throughout the world and have expanded processing capacity, analytics, growth tracking, and ubiquitous connectivity. Every nation's economy depends heavily on a number of areas growing. The banking industry plays a pivotal role in the economic prosperity of India. No matter how mature or emerging, the

Available online at: <https://jazindia.com>

banking industry has always been the foundation of the economy. It organizes and carries out the economic changes. Any shift in this area brought about by the use of technology will have a significant effect on the expansion of an economy. These days, banks are looking for unusual methods to offer and set themselves apart from the various services they offer. Consumers, business and retail alike, are unwilling to stand in line at banks or wait on hold to receive basic financial services. They need and expect to be able to conduct their banking operations anywhere and whenever they choose. A few of the more recent goods and services that are propelling the expansion of the banking industry are plastic money (credit, debit, and smart cards); internet banking, which includes electronic payment services; online investments; online trading accounts; branch networking; telephone banking; mobile applications; and wallets. The widespread use of digital payment methods throughout the nation is a testament to the Reserve Bank's ongoing efforts to create a society that uses less cash. As the usage of electronic payment methods increased, the Bank concentrated its efforts on ensuring the security and safety of online transactions. Consequently, the Bank endeavored to establish a sturdy and durable technological framework that guaranteed the seamless operation of the nation's vital and strategically significant payment and settlement systems. The strategic ambitions outlined in the publication "Payment and Settlement Systems in India: Vision 2018" were still being worked on by the Department of Payment and Settlement Systems (DPSS). As a result, the vision's anticipated results were realized in the following ways: the proportion of paper-based clearing instruments decreased; individual retail electronic payment system segments, such as National Electronic Funds Transfer (NEFT), Immediate Payment Service (IMPS), card transactions, and mobile banking, consistently grew; the number of mobile banking registered customers increased; and the acceptance infrastructure for digital payments was scaled up. Furthermore, the Bank concentrated on bolstering infrastructure and guaranteeing the safety and security of digital transactions due to the swift uptake of digital payments across the nation, which was supported by the introduction of cutting-edge technologies in the payment area. The choice made by banks to increase the number of digital solutions at all operational levels will significantly affect the stability of their finances. While some banks are not able to quickly alter the architecture or IT infrastructure, banks that want to be innovators can shift toward widespread end-to-end automation.

## 1.2 Literature Review

Khan et al. (2023) investigate using GARCH models the connection between the COVID-19 epidemic and financial market volatility. Their work advances our understanding of the complex interactions between market dynamics and global health issues. Nevertheless, their analysis does not go into great detail about how fintech or digital financial advances might either lessen or increase market volatility.

Shah et al. (2023) Examine how fintech plays a part in credit risk management, paying particular attention to Islamic institutions in various nations. Their research sheds light on the possible advantages of fintech adoption for improving credit risk evaluation. However, their study does not fully explore the ways in which other cutting-edge technologies, such as data analytics or blockchain, can alter credit risk management procedures.

Rabbani et al. (2022) greatly advance our knowledge of how digital financial services affect emerging and developing countries' economies in the midst of the COVID-19 pandemic. Their research clarifies the benefits and possible drawbacks of using digital financial services in emergency situations. Although their research is insightful, it does not fully address the particular challenges that disruptive technologies like big data, blockchain, artificial intelligence, and cloud computing pose to the financial services industry.

## 1.3 Statement of Problem

The need for digitization is growing at a rapid rate these days. However, the majority of banks lack the courage to immediately implement this strategy. To ensure that the organization benefits from their policies and strategies, the best and most skilled management will be needed. While some people prefer pre-made systems, others prefer to create their own and then put them into use. Making a decision that is best for the organization takes a long time. This makes deciding a system to implement for the organization difficult because every choice has potential consequences. The biggest obstacle facing digital banking is this. Everyone is unsure about the security and privacy of online banking. They don't think digitization is real. They just want to make payments using cash. The majority of clients did not have their opinions about banking altered. They believe that when technology advances, certain issues also arise. Consumers who have worked hard and earned their money throughout their lives do not want to take any chances with it. Antivirus software also comes with digitalization and can ruin your life. A lot of individuals are unfamiliar with the idea of digitization. This system has to be updated periodically in order to increase its accuracy. Only when the clients are informed and aware of this can this digitization be effective. It seeks to address this difficulty for an increasing number of clients.

For this reason, understanding is crucial. In addition to government banks, a number of other companies provide their clients with services akin to those offered by banks, such as Google, Facebook, Paytm, etc. These non-banking establishments give their clients an avenue to transfer money straight to a recipient's bank account. The digital services offered by public sector bankers vary in terms of both their scope and caliber. Hence, the researcher has undertaken this study to look at the customers' perception about digital banking services some selected public sector banks in Karnataka.

#### **1.4 Objectives of the Study**

In light of the aforementioned context, the primary goal of this study is to understand how Karnataka's customers see the benefits and challenges associated with digital banking. The following goals of the study are being met: To analysis the customers' level of awareness on digital banking services.

1. To analysis problems faced by the customers while using digital-banking services of select public sector banks.
2. To offer suitable suggestions to come out from troubles based on findings of the study

#### **1.5 Hypothesis of the Study**

Ho: "There is no significant difference in public bank customers' perception towards digital-banking banking services"

Ho: "There is no significant association between respondents' socio economic profile and level of problems facing in using digital-banking services"

#### **1.6 Scope of the Study**

It is normal for clients from large cities and small cities to have different attitudes, usage patterns, and perceptions. In Karnataka, the majority of people have begun using online banking services. This study is mostly limited to the awareness and perception of digital banking services among the chosen bank customers in Karnataka.

#### **1.7 Methodology**

##### **1.7.1 Research Design**

The current study used a descriptive research design to explore how customers perceive the quality of service provided by public sector bank.

##### **1.7.2 Nature of Data**

The primary data used in this study were supplemented with secondary data for analysis.

##### **1.7.3 Tools for Data Collection**

The primary information regarding consumers' awareness and perceptions of the digital banking services offered by specific commercial banks was obtained through the use of a questionnaire. The required secondary data was acquired from a variety of sources, including bank websites, publications, journals, brochures, and RBI papers.

##### **1.7.4 Selection of Sample Banks**

A list of the top four banks in India was created in order to choose the banks. This was examined closely in relation to public sector categories. Four banks with the greatest number of branches were then chosen. For the current study, the banks Canara Bank, Bank of India, Central Bank of India, and State Bank of India were chosen. These chosen banks topped the market in Karnataka's category for various banking services.

##### **1.7.5 Sampling Method and Size**

The researcher visited the banks under investigation after identifying the branches. The personal judgment approach was used to choose the banks. Bank public sectors were chosen for the research. A fixed sample size of 600 clients was used. Convenience sampling, a non-probability technique, was employed to obtain customer questionnaire responses. When the researcher visited the relevant bank branches in person, information regarding bank property was obtained. The investigation's criteria included the following: in order to be chosen as clients, respondents had to have finished at least their 12th year of school. At least one of the bank's online banking services should be used by the client. The 600 individuals who agreed to fill out the survey were picked on purpose.

### 1.7.6 Framework of Analysis

The study's main goal is to analyze consumers' perceptions on problems relating to digital services offered by a selected public sector banks in Karnataka. Simple percentage, chi-square test, analysis of one-way variance, student t test, analysis of co-efficient of variation, multiple regression analysis, and multiple discriminant function analysis have all been used to investigate the issues facing digital banking services. Many statistical tests need an evaluation of the data's normality since parametric testing relies on the assumption of normal data. Thus, a normal distribution test is performed on the data set. Strongly disagree and strongly agree were the anchor points for the 5-point scale used by the authors, which was anchored at 1 and 5, respectively.

## 1.8 PROBLEMS TOWARDS DIGITAL BANKING

### 1.8.1 ATM DIGITAL BANKING - DIFFERENCE IN LEVEL OF PROBLEMS

In order to find the significant variation in level of problems faced by consumers of different public sector banks towards ATM digital services and to test the significant variation the following null hypothesis is formulated and tested.

Ho1: "There is no significance difference among the customers towards problems relating to ATM digital services of public sector banks"

To find the significant difference in level of problems affecting customers Kruskal-wallis test ('H' test) was applied for each factor separately. The results are presented in Table 1.

**TABLE 1 DIFFERENCE IN LEVEL OF PROBLEMS FACED BY CUSTOMERS TOWARDS ATM DIGITAL SERVICES PROVIDED BY PUBLIC SECTOR BANKS**

Problems of Digital Baking – ATM services	PUBLIC SECTOR BANKS				Kruskal wallis	
	Canara Bank	Bank of India	Central Bank of India	State Bank of India	H(2)	P
Software Disruption	279.47	297.29	335.38	235.50	23.091	0.000*
Card Reader Outdated	286.48	335.96	329.88	125.00	12.625	0.013*
Touch screen technology and use the most up-to-date software	269.13	401.42	279.50	471.50	70.230	0.000*
No Exit proof of transaction paper	286.92	350.33	319.29	176.00	24.281	0.000*
Criminal Activities	292.03	317.38	359.46	137.50	31.148	0.000*
PIN shield screens and certified keypads are used	359.39	348.63	296.79	328.00	21.538	0.000*
Cause the banking landscape ATMs are hacked from time to time	259.80	379.13	237.33	301.00	54.430	0.000*
Maximum Access Control	252.80	325.54	364.21	385.50	33.569	0.000*
Hardware Integrations	293.48	312.88	292.96	352.50	4.356	0.360
ATM might give wrong amount of cash	352.56	262.08	339.96	144.50	34.382	0.000*
Network failure	246.86	374.08	404.58	391.50	88.194	0.000*
Card getting stuck danger in the machine	279.13	380.33	306.00	353.50	33.551	0.000*
ATM card was damaged	252.31	407.67	311.50	268.00	53.389	0.000*
Forgot ATM pin number	259.43	352.92	369.42	420.50	53.164	0.000*
ATM withdrawals limit per day	261.13	291.50	349.92	247.50	34.292	0.000*
Lost ATM card	258.58	378.13	332.58	317.00	28.699	0.000*
Machine out of order	284.91	251.00	344.96	385.50	12.873	0.012*
Machine out of cash	361.38	297.25	352.08	338.50	39.313	0.000*
Wrong information in the statement	279.69	292.42	300.29	105.50	11.152	0.025*
No print out of statement	251.50	377.21	368.88	134.00	60.910	0.000*
No power pack up	365.58	330.83	336.54	350.50	32.890	0.000*
ATM might give wrong amount	277.04	279.82	270.82	264.35	42.656	0.000*

Source: Computed from Primary Data \*Significant at 10% level; \*\*Significant at 5% level; \*\*\*Significant at 1% level

From the data analysis the table 1 clearly explains the mean score obtained for the dependent variable towards Digital Banking with reference to ATM services to customers. The problems like PIN shield screens and certified keypads are used (359.39), ATM might give wrong amount of cash (352.56), Machine out of cash (361.38) and No power pack up (365.58) are higher among the customers of Canara Bank. The following problems i.e., Card Reader Outdated (335.96), No Exit proof of transaction paper (350.33), Cause the banking landscape ATMs are hacked from time to time (379.13), Card getting stuck danger in the machine (380.33), ATM card was damaged (407.67), Lost ATM card (378.13), No print out of statement (377.21) and ATM might give wrong amount (279.82) are higher among the customers of Bank of India. The following problems i.e., Software Disruption (335.38), Criminal Activities (359.46), Network failure (404.58), ATM withdrawals limit per day (349.92), Wrong information in the statement (300.29) are higher among the customers of Central bank of India. Touch screen technology and use the most up-to-date software (471.50), Hardware Integrations (385.50), Maximum Access Control (352.50) and Machine out of order (385.50) are higher among the customers of State bank of India. Out of twenty-two selected problems under problems associated with ATM dimension, all problems' results of H test for all the problems have probability value 0.000 is less than at 1 and 5 per cent level. It has been inferred that these problems exist differences in affecting problem at different level among the various bank consumers. Hence all the problems towards using digital banking service with reference to ATM services rendered by public sector banks are significantly differ. The null hypotheses is rejected and concluded that all the selected problems mentioned in the above table 1 are significantly differed in affecting the consumers belongs to different public sector banks.

### 1.8.2 INTERNET BANKING - DIFFERENCE IN LEVEL OF PROBLEMS

In order to find the significant variation in level of problems faced by consumers of different public sector banks towards Internet Banking services and to test the significant variation the following null hypothesis is formulated and tested.

Ho2: "There is no significance difference among the customers towards problems relating to Internet Banking services of public sector banks"

To find the significant difference in level of problems affecting customers Kruskal-wallis test ('H' test) was applied for each factor separately. The results are presented in Table 2.

**TABLE 2 DIFFERENCE IN LEVEL OF PROBLEMS FACED BY CUSTOMERS TOWARDS INTERNET BANKING SERVICES PROVIDED BY PUBLIC SECTOR BANKS**

Problems of Digital Baking –Internet Banking	PUBLIC SECTOR BANKS				Kruskal wallis	
	Canara Bank	Bank of India	Central bank of India	State bank of India	H(2)	P
Security issues	271.11	314.21	370.63	347.50	50.007	0.000*
Internet connectivity issues	263.65	377.17	367.75	132.50	50.850	0.000*
Shifting banking habits	264.14	331.29	369.58	356.50	28.877	0.000*
Internet speed issue	300.07	293.50	228.88	259.50	15.071	0.005*
Lack of awareness about internet usage	267.41	305.67	262.42	292.28	31.482	0.000*
Cyber attacks and fraudulent activity	271.33	317.32	288.23	287.57	47.761	0.000*
Technical issues	270.16	295.24	269.24	306.41	23.506	0.000*
Lack of personal relationship	291.88	274.78	297.75	283.15	44.281	0.000*
Changing banking landscape (FinTechs solutions)	298.21	253.63	289.38	255.94	38.789	0.000*

Source: Computed from Primary data\*Significant at 10% level; \*\*Significant at 5% level; \*\*\*Significant at 1% level

From the data analysis the table 2 clearly explains the mean score obtained for the dependent variable towards Digital Banking with reference to ATM services to customers. The problems like Internet speed issue (300.07) and Changing banking landscape (FinTechs solutions) (298.21) are higher among the customers of Canara Bank. The following problems i.e., Internet speed issue (300.07), Changing banking landscape (FinTechs solutions) (298.21) are higher among the customers of Bank of India. The following problems i.e., Security issues (370.63), Shifting banking habits (369.58), Lack of personal relationship (297.75) are higher among the

customers of Central bank of India. A technical issue (306.41) is higher among the customers of State bank of India. Out of nine selected problems under problems associated with Internet Banking dimension, all problems' results of H test for all the problems have probability value 0.000 is less than at 1 and 5 per cent level. It has been inferred that these problems exist differences in affecting problem at different level among the various bank consumers. Hence all the problems towards using digital banking service with reference to Internet Banking services rendered by public sector banks are significantly differ. The null hypotheses is rejected and concluded that all the selected problems mentioned in the above table 2 are significantly differed in affecting the consumers belongs to different public sector banks.

### PHONE /MOBILE BANKING - DIFFERENCE IN LEVEL OF PROBLEMS

In order to find the significant variation in level of problems faced by consumers of different public sector banks towards phone /mobile banking services and to test the significant variation the following null hypothesis is formulated and tested.

Ho3: "There is no significance difference among the customers towards problems relating to phone /mobile banking services of public sector banks"

To find the significant difference in level of problems affecting customers Kruskal-wallis test ('H' test) was applied for each factor separately. The results are presented in Table 3.

**TABLE 3 DIFFERENCE IN LEVEL OF PROBLEMS FACED BY CUSTOMERS TOWARDS PHONE /MOBILE BANKING SERVICES PROVIDED BY PUBLIC SECTOR BANKS**

Problems of Digital Baking – Phone /Mobile Banking	PUBLIC SECTOR BANKS				Kruskal wallis	
	Canara Bank	Bank of India	Central bank of India	State bank of India	H(2)	P
Connectivity issues	287.96	332.17	304.50	318.50	60.363	0.000*
Net coverage issues	272.06	298.17	324.46	453.50	45.701	0.000*
Taking too much time to speak with tele banker	273.89	399.96	281.13	122.50	61.715	0.000*
Too much time to resolve the transaction	288.09	229.17	349.79	253.50	42.254	0.000*
Recharge through mobile phone not successful	390.29	258.92	268.17	289.30	19.502	0.001*
Login / Sign off are not easy	279.02	258.69	294.96	276.16	32.791	0.000*
Some Handset does not have the capability to use Mobile Banking	285.95	352.88	346.04	366.00	61.317	0.000*
Security issues	251.00	354.46	343.42	244.50	74.495	0.000*
Mobile required facility not available	224.59	427.00	325.63	306.40	24.101	0.000*
Outdated Apps often mean out of date security	259.15	374.29	260.25	305.77	42.366	0.000*
Poor connectivity leads to poor security	445.50	344.30	308.66	321.67	47.580	0.000*
Virus attack the mobile banking app risk by hackers	465.00	320.28	321.05	299.63	60.786	0.000*

Source: Computed from Primary data\*Significant at 10% level; \*\*Significant at 5% level; \*\*\*Significant at 1% level

From the data analysis the table 3 clearly explains the mean score obtained for the dependent variable towards Digital Baking with reference to ATM services to customers. The problems like Recharge through mobile phone not successful (390.29), Poor connectivity leads to poor security (445.50), Virus attack the mobile banking app risk by hackers (465.00) are higher among the customers of Canara Bank. The following problems i.e., Connectivity issues (332.17), Taking too much time to speak with tele banker( 399.96), Security issues (354.46), Mobile required facility not available(427.00) are higher among the customers of Bank of India. The following problems i.e., Too much time to resolve the transaction (349.79) and Login / Sign off are not easy (294.96) are higher among the customers of Central bank of India. Net coverage issues (453.50) and Some Handset does not have the capability to use Mobile Banking (366.00) are higher among the customers of State bank of India. Out of twelve selected problems under problems associated with Phone /Mobile Banking

dimension, all problems' results of H test for all the problems have probability value 0.000 is less than at 1 and 5 per cent level. It has been inferred that these problems exist differences in affecting problem at different level among the various bank consumers. Hence all the problems towards using digital banking service with reference to Phone /Mobile Banking services rendered by public sector banks are significantly differ. The null hypotheses is rejected and concluded that all the selected problems mentioned in the above table 3 are significantly differed in affecting the consumers belongs to different public sector banks.

#### 1.8.4 CREDIT / DEBIT CARD BANKING - DIFFERENCE IN LEVEL OF PROBLEMS

In order to find the significant variation in level of problems faced by consumers of different public sector banks towards Credit / Debit Card Banking services and to test the significant variation the following null hypothesis is formulated and tested.

Ho4: "There is no significance difference among the customers towards problems relating to Credit / Debit Card Banking services of public sector banks"

To find the significant difference in level of problems affecting customers Kruskal-wallis test ('H' test) was applied for each factor separately. The results are presented in Table 4.

**TABLE 4 DIFFERENCE IN LEVEL OF PROBLEMS FACED BY CUSTOMERS TOWARDS CREDIT / DEBIT CARD BANKING SERVICES PROVIDED BY PUBLIC SECTOR BANKS**

Problems of Digital Baking – Credit / Debit Card Banking	PUBLIC SECTOR BANKS				Kruskal wallis	
	Canara Bank	Bank of India	Central bank of India	State bank of India	H(2)	P
Credit Card not Supported by the Service Provider	263.32	310.04	370.46	441.50	10.384	0.034*
Incorrect Amount Deducted	279.45	397.04	249.75	260.00	77.566	0.000*
Card not Detected by the device	280.59	385.50	344.50	247.00	41.664	0.000*
Card Payment not supported	376.38	364.88	305.33	363.50	16.668	0.002*
Long Time for Receiving OTP	297.47	262.13	385.42	374.50	58.822	0.000*

Source: Computed from Primary data\*Significant at 10% level; \*\*Significant at 5% level; \*\*\*Significant at 1% level

From the data analysis the table 4 clearly explains the mean score obtained for the dependent variable towards Digital Baking with reference to Credit / Debit Card Banking services to customers. The problem like Card Payment not supported (376.38) is higher among the customers of Canara Bank. Incorrect Amount Deducted (397.04) and Card not Detected by the device (385.50) are higher among the customers of Bank of India. The following problem i.e., Long Time for Receiving OTP (385.42) is higher among the customers of Central bank of India. Credit Card not Supported by the Service Provider (441.50) is higher among the customers of State bank of India. Out of five selected problems under problems associated with Credit / Debit Card Banking dimension, all problems' results of H test for all the problems have probability value 0.000 is less than at 1 and 5 per cent level. It has been inferred that these problems exist differences in affecting problem at different level among the various bank consumers. Hence all the problems towards using digital banking service with reference to Credit / Debit Card Banking rendered by public sector banks are significantly differed. The null hypotheses is rejected and concluded that all the selected problems mentioned in the above table 4 are significantly differed in affecting the consumers belongs to different public sector banks.

#### 1.8.5 NEFT BANKING - DIFFERENCE IN LEVEL OF PROBLEMS

In order to find the significant variation in level of problems faced by consumers of different public sector banks towards NEFT Banking services and to test the significant variation the following null hypothesis is formulated and tested.

Ho5: "There is no significance difference among the customers towards problems relating to NEFT Banking services of public sector banks"

To find the significant difference in level of problems affecting customers Kruskal-wallis test ('H' test) was applied for each factor separately. The results are presented in Table 5.

**TABLE 5 DIFFERENCE IN LEVEL OF PROBLEMS FACED BY CUSTOMERS TOWARDS NEFT BANKING SERVICES PROVIDED BY PUBLIC SECTOR BANKS**

Problems of Digital Baking – NEFT	PUBLIC SECTOR BANKS				Kruskal wallis	
	Canara Bank	Bank of India	Central bank of India	State bank of India	H(2)	P
Lack of Awareness on NEFT	282.25	264.46	310.83	272.00	25.002	0.000*
High time involved in completing transaction	286.51	263.17	341.79	445.00	63.066	0.000*
No Reference Code Generated	332.16	285.11	213.29	313.50	37.622	0.000*
No message Generated about transaction	253.80	360.88	355.63	332.00	17.888	0.001*
Huge Time is needed for Adding Beneficiary	286.51	316.88	376.75	355.00	10.768	0.029*

Source: Computed from Primary data\*Significant at 10% level; \*\*Significant at 5% level; \*\*\*Significant at 1% level

From the data analysis the table 5 clearly explains the mean score obtained for the dependent variable towards Digital Baking with reference to NEFT Banking services to customers. The problem like No Reference Code Generated (332.16) is higher among the customers of Canara Bank. No message Generated about transaction (360.88) is higher among the customers of Bank of India. The following problem i.e., Lack of Awareness on NEFT (310.83) and Huge Time is needed for Adding Beneficiary (376.75) is higher among the customers of Central bank of India. High time involved in completing transaction (445.00) is higher among the customers of State bank of India. Out of five selected problems under problems associated with NEFT Banking dimension, all problems' results of H test for all the problems have probability value 0.000 is less than at 1 and 5 per cent level. It has been inferred that these problems exist differences in affecting problem at different level among the various bank consumers. Hence all the problems towards using digital banking service with reference to NEFT Banking rendered by public sector banks are significantly differed. The null hypotheses is rejected and concluded that all the selected problems mentioned in the above table 5 are significantly differed in affecting the consumers belongs to different public sector banks.

### 1.8.6 KIOSK BANKING - DIFFERENCE IN LEVEL OF PROBLEMS

In order to find the significant variation in level of problems faced by consumers of different public sector banks towards Kiosk Banking services and to test the significant variation the following null hypothesis is formulated and tested.

Ho6: "There is no significance difference among the customers towards problems relating to Kiosk Banking services of public sector banks"

To find the significant difference in level of problems affecting customers Kruskal-wallis test ('H' test) was applied for each factor separately. The results are presented in Table 6.

**TABLE 6 DIFFERENCE IN LEVEL OF PROBLEMS FACED BY CUSTOMERS TOWARDS KIOSK BANKING SERVICES PROVIDED BY PUBLIC SECTOR BANKS**

Problems of Digital Baking – Kiosk Banking	PUBLIC SECTOR BANKS				Kruskal wallis	
	Canara Bank	Bank of India	Central bank of India	State bank of India	H(2)	P
Lack of Awareness	259.50	334.92	383.58	332.50	56.051	0.000*
Time Needed to Complete Transaction is more	258.39	393.54	361.38	299.00	58.055	0.000*
Long Queue to Complete Transaction	284.23	315.54	288.13	320.00	14.197	0.007*
No Guide for Support	255.65	393.83	313.58	423.50	49.984	0.000*
Regular maintenance at intervals	324.11	318.71	281.42	217.00	24.921	0.000*



Initial hardware cost	248.63	397.75	355.50	292.50	61.597	0.000*
High installation & authorization cost.	230.52	293.58	229.34	253.67	51.643	0.000*
Development of custom software	269.88	298.34	320.24	288.14	33.486	0.000*
Pushing Apps & Content on Kiosks	258.49	274.25	298.50	305.77	18.906	0.001*
Troubleshooting Kiosk Issues	303.93	248.44	277.17	293.96	65.093	0.000*
Fragmented Kiosk Types & OS	246.00	269.64	302.01	307.41	76.806	0.000*

Source: Computed from Primary data\*Significant at 10% level; \*\*Significant at 5% level; \*\*\*Significant at 1% level

From the data analysis the table 6 clearly explains the mean score obtained for the dependent variable towards Digital Banking with reference to Kiosk Banking services to customers. The problem like Regular maintenance at intervals (324.11), Troubleshooting Kiosk Issues (303.93) are higher among the customers of Canara Bank. Time Needed to Complete Transaction is more (393.54), Initial hardware cost (397.75) and High installation & authorization cost (293.58) are higher among the customers of Bank of India. The following problem i.e., Lack of Awareness (383.58), Development of custom software (320.24) are higher among the customers of Central bank of India. Long Queue to Complete Transaction (320.00), No Guide for Support (423.50), Pushing Apps & Content on Kiosks (305.77), Fragmented Kiosk Types & OS (307.41) are higher among the customers of State bank of India. Out of eleven selected problems under problems associated with Kiosk Banking dimension, all problems' results of H test for all the problems have probability value 0.000 is less than at 1 and 5 per cent level. It has been inferred that these problems exist differences in affecting problem at different level among the various bank consumers. Hence all the problems towards using digital banking service with reference to Kiosk Banking rendered by public sector banks are significantly differed. The null hypotheses is rejected and concluded that all the selected problems mentioned in the above table 6 are significantly differed in affecting the consumers belongs to different public sector banks.

## 1.9 Conclusion

Banking and financial services have always been extremely formal in nature, and for good reason. They say “money makes the world go round”, and even if the line was intended to be cynical, it remains true for at least all the businesses. Things are, however, rapidly transforming in the digital era. It is as important that the banks remain as transparent, as their customers remain authentic. There is no doubt that the role of finance and how that role is undertaken is changing rapidly. They were innovative in their use of technology and in models to meet the needs of low- income customers, and they were making progress on business viability through aggressive product roll-outs, cross-selling, and aligning their operations to digital banking. They were eager to learn what was working in other contexts, channels, and operations. They also articulated an agenda of advocacy with regulators, the need for coordination among government bodies, and the importance of governments making digital payments across all of their functions a role in building trust in many organizations and driving even greater operating efficiencies. Digital banking captures a large market share. Now a day with technical advancement there is a change in the banking sector. Now every customer accepts the digital banking for their comfort. But with benefits of this advancement some errors also occur. So there are some technical issues which effects customer's perception. Digital banking is converting the brick and mortar banks into greater and efficient places to operate. Digital banking makes easier all the transaction for the customers. They can easily pay their bills, convenient places, transfer money from one place to another and easily check the bank details. Growth of digital banking in India can help in various issues like: Growth of capital market, Growth of insurance sector, Growth of venture capital market.

## References

1. Surulivel, S. T. (2010). A Study on the Impact of Technology on the Performance of Indian Banking Industry (Doctoral Thesis).
2. Milind S, “Adoption of Internet Banking by Australian Consumers: An Empirical Investigation”, International Journal of Bank Marketing, vol. 17, pp. 324- 334.
3. Ruby S, “E- Banking: Problems and Prospects”, International Journal of Management and Business studies, vol. 1.
4. Sardana Varda, “Digital technology in the realm of Banking: A Review of Literature”, International Journal of Research in Finance and Management, vol. 1, issue 2, pp. 28- 32.

5. Golden and Regi, "Customer Preference towards Innovative Banking Practices available in the state bank of India at Palayamkottai", *Sankhya international journal of management and technology*, vol. 3 issue 11, pp. 1-5.
6. Khan, M., Mughal, K. S., & Haseeb, M. (2023). COVID-19 pandemic & financial market volatility; evidence from GARCH models. *Journal of Risk and Financial Management*, 16(1), 50.
7. Shah, S. A. A., Fianto, B. A., Sheikh, A. E., Sukmana, R., Kayani, U. N., & Ridzuan, A. R. B. (2023). Role of fintech in credit risk management: An analysis of Islamic banks in Indonesia, Malaysia, UAE and Pakistan. *Journal of Science and Technology Policy Management*.
8. Rabbani, M. R., Kayani, U., Bawazir, H. S., & Hawaldar, I. T. (2022). A commentary on emerging markets banking sector spillovers: Covid-19 vs GFC pattern analysis. *Heliyon*.