AN ANALYTICAL STUDY ON ACCEPTANCE AND ADOPTION OF DIGITAL BANKING SERVICES IN SERVICE QUALITY DIMENSION

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Submitted by

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Chapter IX

CHAPTER IX

SUMMARY OF FINDINGS, SUGGESTIONS AND CONCLUSION

This chapter deals with the findings, suggestions, its contributions and conclusion of the research study.

Around the world, Information technology plays a significant role in enhancing banking sector. The rapid growth of technological advancements has built enormous opportunities for banks and other financial institutions to offer best services through several electronic channels. Services offered by banks are proved to be more flexible as well as user-friendly. Also, these online developments provide alternative and other non-traditional modes through which various financial products and services can be offered more accessibly as well as economically without compromising on the existing traditional mode. Banks spend lots of money on implementing technology, for the reasons viz., to minimize operation costs and most importantly to develop competitive advantage over their competitors.

The past reviews reveals that many banking customers have registered for digital banking but not intend to using it regularly because they are not able to accept the features. The results obtained in this research, confirms positive relationship between responsiveness, assurance, security, perceived usefulness, perceived ease of use with customer acceptance which has indirect effect on customer adoption, bankers can focus on such parameters in improve digital banking services. Also, this research identifies various issues and challenges face by digital banking users. Hence bankers can adopt the model developed in this research to enhance their digital banking services.

The electronic mode of providing services permits banking customers to avail banking services from their home via digital services. It has become possible to access bank accounts and perform transaction literally anytime and anywhere around the world. Thus, the banks make use of the advantages of digital banking services so that it can offer better banking services and products that suits the individual needs and wants of their customers.

9.1 Summary of Findings

The findings from the research after performing the analysis of data is discussed in this section. The primary objective of the study was to analyze the adoption and acceptance level of digital banking services in service quality dimension in Coimbatore district. The objective wise findings of the study are presented below.

PART I

9.1.1 To Identify the Demographic and Other Factors Influencing the Acceptance and Adoption of Digital Banking in Coimbatore District

In general, it is identified that the demographic and other social factors influence the usage of digital banking services. Income level, age and education influence the usage of digital banking services. The following are the findings to identify the demographic and other factors that influence in acceptance and adoption of digital banking services.

- Female respondents were in greater proportion (50.7%) than the males 49.3%.

- 23.3% belong to the age group of 18 - 30 years. 26.3% of the respondents are in the age group 31 - 40 years. 26.1% of the respondents are in age group 41 - 50 years. 24.3 % of the respondents are in the age group of 50 years.

- 29.95% of the respondents have a postgraduate degree. 26.96% of the respondents have under graduate degree and 15.81% of the respondents are diploma holders. 13.98 % of the respondents have completed higher secondary school education and 10.8% of the respondents have completed tenth standard of education. 2.5% of the respondents have not chosen the level of education and opined for below 10th option.

- 58.1% of the respondents were married, 40.4% were unmarried and 1.5% of the respondents were found to be in others category that includes separated, divorced and widowed

- 28.8% of the respondents belongs to the self-employed stream, 26.9% of the respondents are professionals, 35.3% of the respondents are from service stream, 4.8% of the respondents are student's category, 4.2% of the respondents belongs to the others stream. This reveals that individuals who are employed in some kind of profession enjoy greater access to digital banking services.

- 13.31% of the respondents have an annual income up to five Lakhs. 17.14% of the respondents have yearly income level between five to eight lakhs. 32.11% of the respondents have income level between eight to ten lakhs and 37.44% of the respondents have more than ten lakhs income per annum.

- 25.1% of the respondents are found to use the internet facilities less than one year. 42.8% of the respondents use internet facilities for 1 to 2 years. 17.5% of the respondents use internet services for 2 to 3 years. 6.5% of the respondent's avail internet services for 3 to 4 years. 6.3% of the respondents use internet services for 4 to 5 years. It is found that only 1.8% of the respondents use internet services more than five years. Therefore, in recent years respondents are availing internet services than the past years.

- 33.8% of the respondents feel that public sector banks are advanced than private sector banks. Majority of the customers, 66.2% opined that private sector banks are technically advanced than public sector banks.

- Majority of the banking customers, (28.3%) prefers quality of the services offered by the banks as the important attribute in measuring the banks. That is followed by Technology used by 28%. 15.6% of the respondents prefer trust as the parameter to measure banks. 12.1% and 16% of the respondents uses location and the type of the bank as an attribute to determine banks.

- 40.1% update their transactions in their passbook. 31.1% of the respondents uses preferred updating their transaction record through e-mail. 19.5% of the respondents maintain their transaction record through online banking. 9.3% of the respondents prefer updating through other mode. Hence average number of the respondents adopt digital banking services and so they prefer thorough e-mail and other online banking services.

- 24.5% of the respondents preferred making payments in the form of cash. 14.1% of the respondents do shopping by paying through ATM Card. Majority 33.6% preferred digital banking services for making payments. 18.5% of the respondents prefer mobile banking. Only minimum 2.3% of the respondents uses e-wallets for online payments. 7% of the respondents preferred others options that might be the usage of various other mobile applications.

- 2.8% of the respondents says that they have no knowledge in using digital banking services. 7% are found to be in beginner stage and 30.8% of the respondents says they have average knowledge in digital banking services. It is found that majority of the respondents 32.8% have advanced knowledge with digital banking services. 26.6% of the respondents opined that they are experts in having knowledge on digital banking services.

- 51.9% of the respondents doesn't visit bank branches not even once per month whereas, 28.6% and 8% of the respondents visited their bank's branch for performing banking operations '1 to 3 times' and '3 to 8 times' respectively in a month. 6.3% of the respondents visit 8 to 12 times per month. It signifies that only 5.2% of the respondents visits their bank's ranch more than 12 times per month for availing banking services. The reason for not visiting bank branches may be also due to the existence of Covid-19 Pandemic at the time of survey.

- 40.4% uses ATM 1 - 3 times per month. 26.4% of the respondents uses 3 - 8 times per month. 25% and 7.2% of the respondents uses 8 - 12 times and more than 12 times per month respectively. Only 1% of respondents are not using ATM services. It can be inferred that the high acceptance level of ATM services could be the reason for lower usage of branch banking services among the respondents.

- 1.2% of the respondents were not availing Digital Banking services even once in a month. 2.7% of the respondents uses 1 - 3 times in a month. Many of the respondents 34.1% uses digital banking services 3 - 8 times in a month. Majority of the respondents (38.4%) uses digital banking services 8 - 12 times in a month whereas 23.6% of the respondents uses more than 12 times in a month.

- 47.1% of the respondents were not using telephone banking service even once in a month. 29.5% of sample respondents used it '1 - 3 times' in a month, 16.3% have used it '3 – 8 times' in a month and a small proportion of the total respondents i.e., 3.7% and 3.5% have opted it under '8 - 12 times' and 'over 12 times' respectively.

- 2.33% of the respondents have respondents have responded that they are not using mobile banking. 8.32 % of the respondents use 1 - 3 times in a month. 29.62% of the respondents uses 3 - 8 times during a month. Majority (31.61%) of the respondents uses mobile banking services 8 - 12 times in a month. 28.12% of the respondents uses over 12 times during a month.

- It can be inferred that individuals who are more educated are likely to have more access and experience to technological innovations. So, banks can conduct training programs to customers who don't have technical knowledge regarding digital banking. The results also reveals that individuals who are employed in some kind of profession enjoy greater access to digital banking services. So, digital banking campaigns can be organized to unprofessional. Banks can also motivate customers with low-income level people to adopt digital banking facilities.

Also, respondents opined that private sector banks are more technically advanced than public sector banks. So public sectors banks must improve their digital banking process so that their customers are satisfied with their digital banking policies. One way ANOVA has been applied to test the significant difference between eight items in Tangibility and the demographic profile of age, education, profession, and monthly income of the respondents. Independent sample t test has been applied to identify the significant difference between the various service quality dimensions and gender and marital status of the respondents.

DEMOGRAPHIC PROFILE AND TANGIBILITY

It is found that there is a significant difference between the item 'Bank has up-to-date information' and age, profession and marital status of the respondents and there is no significant difference between education, monthly income, and gender of the respondents.

Regarding the variable 'Location of the bank' there is a significant difference between profession and the location of the bank but for other demographic characters that includes age, education, monthly income, gender and marital status, there is no significant difference between them and item 'Location of the bank'.

There is a significant difference between item 'Sufficient number of ATM machines and age of the respondents and there is no significant difference between item 'Sufficient number of ATM machines and demographic characteristics viz., education, profession, monthly income, gender and marital status.

There is a significant difference between cash counting machines and age, profession and monthly income of the respondents and there is no significant difference between cash counting machines' and education, gender and marital status of the respondents.

There is a significant difference between the item 'Counter partitions in bank and its branches' and age, profession of the respondents. Also, it is found that there is no significant difference between education, income, gender, marital status, and item 'Counter partitions in bank and its branches'.

There is a significant difference between age, profession, income, marital status, and item 'Materials associated with the bank's office of the respondents and there is no significant difference between the item 'Materials associated with the bank's office and education, gender of the respondents.

Item 'The employees approach' is tested for significant difference between demographic profile of the respondents. It is found that there is a significant difference between age and item and there is no significant difference between the item and education, profession, income, gender, and marital status of the respondents.

There is a significant difference between age and item 'Guide signs indicating as to which counters are offering which services' of the respondents and there is no significant difference between the item and education, profession, income, gender, and marital status of the respondents.

DEMOGRAPHIC PROFILE AND RELIABILITY

Item 'The bank website does not freeze after customer put in all the information' is tested for significant difference with demographic characteristics of the respondents. It is found that there is a significant difference between the item 'The bank website does not freeze after customer put in all the information' and age and there are no differences between the item and education, profession, monthly income, gender and marital status of the respondents. It is found that there is a significant difference between the item 'Information provided on website' and age and profession of the respondents. But for other demographic variables like education, monthly income, gender and marital status, their difference does not hold good with the item 'Information provided on website'.

When demographic variables are tested with the item 'Up to date content,' it is found that there is no significant difference between the item 'Up to date content' and the demographic variables viz., age, education, profession, monthly income, gender, and marital status of the respondents.

There exists a significant difference between age and the item 'Process of transactions' and there is no significant difference between education, profession, monthly income, gender and marital status and the item 'Process of transactions'.

With respective to the item 'Wide range of products and services provided' it is tested to find the significant difference with demographic profile of the respondents. The results reveals that there is no significant difference between item 'Wide range of products and services provided' and education, monthly income, gender and marital status of the respondents and there exist a significant difference between age, profession and the item 'Wide range of products and services provided'.

DEMOGRAPHIC PROFILE AND RESPONSIVENESS

When tested with the item 'Customer service representative' it is found that, there is a significant difference between age, profession, and item of the respondents and also there is no significant difference between the item and education, monthly income, gender and marital status of the respondents.

It is found that there is a significant difference between the item 'Bank performs the services right the first time' and age, profession, monthly income, and marital status of the respondents. But for other demographic variables like education and gender, their difference does not hold good with the item.

There exists a significant difference between age and the item 'Quick confirmation' and there is no significant difference between education, profession, monthly income, gender, marital status and the item.

It is found that there is a significant difference between the item 'Our requests are handled promptly' and age of the respondents. But for other demographic variables like education, profession, monthly income, gender and marital status, their difference does not hold good.

DEMOGRAPHIC PROFILE AND ASSURANCE

Item 'Employees of bank have the knowledge to answer customer questions' is tested for significant difference with demographic characteristics of the respondents. It is found that there is a significant difference between age and the item. There is no significant differences between the item and education, profession, monthly income, gender, and marital status of the respondents.

There exists a significant difference between age, profession, and the item 'Politeness and friendly staff' and there is no significant difference between education, monthly income, gender, marital status and the item.

When demographic variables are tested with the item 'Employees are always willing to help you' it is found that there is no significant difference between the item and the demographic variables viz., age, education, profession, monthly income, gender, and marital status of the respondents.

It is found that there is a significant difference between the item 'Experienced management team' and age, profession and monthly income of the respondents but for other demographic variables like monthly income, education, gender and marital status, there difference doesn't hold good with the item.

DEMOGRAPHIC PROFILE AND SECURITY

There is a significant difference between age, profession and the item 'Security for ATMs' and there is no significant difference between the item and education, monthly income, gender, and marital status of the respondents.

There is a significant difference between item 'Online filling' and age, profession, monthly income, marital status of the respondents and there is no significant difference between the item and education, gender of the respondents.

With regards to the item 'Protection of banking transactions' there exist a significant difference between age and the item but with regards to other demographic variables viz., education, profession, monthly income, gender, and marital status the item does not hold good.

There exists a significant difference between age and the item 'Privacy/ Confidentiality of the bank'. But with regards to other demographic variables viz., education, profession, monthly income, gender, and marital status there is no significant difference between the item and education, profession, monthly income, gender, and marital status of the respondents.

It is found that there is a significant difference between item 'Care in collection of personal information' and education, profession of the respondents and there is no significant difference between the item and age, monthly income, gender, marital status of the respondents.

DEMOGRAPHIC PROFILE AND PERCEIVED USEFULNESS

It is found that there is significant difference between the item 'Using the digital banking applications is time saving' and age of the respondents and there is no significant difference between education, profession, monthly income, gender and marital status of the respondents.

With regard to the item 'The apps helps me to accomplish things more quickly' there is a significant difference between age and profession but for other demographic characters that includes education, monthly income, gender and marital status, there is no significant difference between them and item.

It is found that there is a significant difference between item 'Using the digital banking apps is efficient' and age, monthly income of the respondents and it can be interpreted that there is no significant difference between item and demographic characteristics viz., education, profession, gender and marital status.

Item 'The digital banking apps is useful for me' is tested to find the significant difference with demographic profile of the respondents. The results reveals that there is no significant difference between item and age, education, profession, monthly income, gender, and marital status of the respondents.

When tested for significance with the item 'The apps are more convenient in finding sources' it is found that there is a significant difference between the item and age of the respondents. Also, it is found that there is no significant difference between education, profession, income, gender, marital status, and item.

When tested with the item 'The digital banking apps have more number of features' it is found that, there is a significant difference between age and item and there is no significant difference between the item and education, profession, monthly income, gender and marital status of the respondents.

Item 'Only young people use digital banking apps vastly' is tested to find the significant difference with demographic profile of the respondents. The results reveals that there is no significant difference between item and age, education, profession, monthly income, gender and marital status of the respondents.

There is a significant difference between age, profession and monthly income and item 'Using a digital banking app distinguishes me from others' of the respondents and there is no significant difference between the item and education, gender, and marital status of the respondents.

DEMOGRAPHIC PROFILE AND PERCEIVED EASE OF USE

Item 'The digital banking apps are easy to use' is tested for significant difference with demographic characteristics of the respondents. It is found that there is a significant difference between the item and age, marital status and there is no differences between the item and education, profession, monthly income, and gender of the respondents.

There exists a significant difference between age and the item 'The digital banking applications insists on error notifications' and there is no significant difference between education, profession, monthly income, gender, and marital status.

When demographic variables are tested with the item 'The apps helps me in what I want to do' it is found that there is no significant difference between the item and the demographic variables viz., education, profession, monthly income, gender and marital status of the respondents and there is a significant difference between age and the item.

It is found that there is a significant difference between the item 'My interaction with the digital banking apps is clear and understandable' and age of the respondents. But for other demographic variables education, profession, monthly income, gender and marital status, their difference does not hold good with the item.

Item 'I find the digital banking apps are pleasant' is tested to find the significant difference with demographic profile of the respondents. The results reveals that there is no significant difference between item and education, profession, monthly income, and gender of the respondents. There exists a significant difference between age, marital status, and the item.

When tested with the item 'The digital banking apps insists on error notifications' it is found that, there is a significant difference between age, gender and item. Also, it can be interpreted that there is no significant difference between the item and education, profession, monthly income, and marital status of the respondents.

DEMOGRAPHIC PROFILE AND CUSTOMER ACCEPTANCE

It is observed that there is a significant difference between age, marital status, and the item 'Using a digital banking apps has its advantages' and there are no differences between the item and education, profession, monthly income and gender of the respondents.

There exists a significant difference between age and the item 'Using digital banking apps personalize my phone'. There is no significant difference between education, profession, monthly income, gender and marital status and the item.

When demographic variables are tested with the item 'The digital banking apps allow me to stay connected with my friends,' it is found that there is no significant

difference between the item and the demographic variables viz., education, profession, monthly income, gender, and marital status of the respondents. There is a significant difference between age and the item.

It is found that there is a significant difference between the item 'Digital banking Apps helps me to stay connected in social Networking websites' and age of the respondents. But for other demographic variables education, profession, monthly income, gender and marital status, their difference does not hold good with the item.

There exists a significant difference between marital status and the item 'Digital banking apps contended with news feeds'. There is no significant difference between age, education, profession, monthly income, gender, and the item.

It is found that there is a significant difference between the item 'Using digital banking apps reflects my personality from others' and age of the respondents. But for other demographic variables education, profession, monthly income, gender, and marital status, there difference does not hold good with the item.

DEMOGRAPHIC PROFILE AND INTENTION TO ADOPT

The results reveals that there exists a significant difference between age and the items 'I think the chances are that within 6 months I will use another type of digital banking application', 'I think the chances are that within 12 months I will use another type of digital banking application', 'Within 18 months I will use another type of digital banking application', and 'The digital banking apps fit my style' since the p value is found to be 0.000.

But with regards to other demographic variables viz., education, profession, monthly income, gender, and marital status significant values are found to be greater than 0.05. Hence there is no significant difference between the item 'I think the chances are that within 6 months I will use another type of digital banking application', 'I think the chances are that within 12 months I will use another type of digital banking application' and 'Within 18 months I will use another type of digital banking application' and education, profession, monthly income, gender, and marital status of the respondents.

There exists significant difference between age, gender and the item Fewer push notifications to adopt apps'. But there is no significant difference between the item 'Fewer push notifications to adopt applications' and education, profession, monthly income, marital status of the respondents.

PART II

9.1.2 To Explore the Opinion of Banking Customers Regarding the Purpose of usage of digital Banking Services

It is identified that majority of the bankers are registering for digital banking services but not using it regularly. This section explored the opinion of banking customers about the purpose and usage of various digital banking services offered by banks. Customers opinions on various digital banking services were correlated with demographic profile of the respondents and following are the findings.

- Mean scores of females are higher than that of males in the case of their opinion towards '24*7 Services', 'easy accessibility', 'Comprehensive website services', 'fast and convenient Services', Privacy', 'Better cash Management' and' Discount and Rewards' whereas for Opinion on 'Free of charge services the mean scores of males are higher than that of the females.

- The p value is greater than 0.10 for the respondent's opinion on 'comprehensive website services' (0.109) and 'Privacy' (0.148) which indicates acceptance of null hypothesis. Whereas in the cases of 'Better Cash Management' (0.092) and 'Free of Charge Services' (0.087), the p value is less than 0.10 and therefore at 10% level of significance, indicating rejection of null hypothesis. Similarly, for services like '24*7 Services' (0.032), 'Easy Accessibility' (0.029) and 'Fast and Convenient Services' (0.033), p value is less than 0.05 and therefore accepting the alternate hypothesis at 5% level of significance. In case of 'Discounts and Rewards' (0.009) p value is found to be less than 0.01 and therefore alternative hypothesis is accepted at 1% level of significance.

- This shows that there is no significant difference between the customers' gender and opinion towards facilities like 'comprehensive website services' and

'Privacy', whereas it reveals that there is a significant difference between gender and opinion towards facilities like 'Better Cash Management', 'Free of Charge Services', '24*7 Services', 'Easy Accessibility', 'Fast and Convenient Services' and 'Discounts and Rewards'.

- Mean score and standard deviation relating to respondents' education status and their opinion towards Digital banking services. As per the results, the mean score values for '24*7 Services' and 'Privacy' have the highest average mean score of 4.18.

- Almost all the bank customers prefer the use of 24-hour services irrespective of their status in educational background and expects privacy. In the case of 'ease of accessibility', 'free of charge services', 'better cash management' and 'discounts and rewards, the mean scores lie between 4.02 and 4.13, which also indicates the maximum preference of digital banking services by all customers. 'Fast and convenient services' has the mean score of 3.97. The digital banking services of 'comprehensive website services' enjoy the minimum preference by the customers that exhibit the lowest mean score of 2.26 when compared with the education status of the respondents.

- There is no significant difference between groups as determined by the values of F which are 1.861, 1.665 and 1.104, and values of p which are 0.099, 0.650 and 0.357 respectively for digital banking facilities like 'easy accessibility', 'free of charge services' and 'discounts and rewards'.

- An analysis of the services that includes '24*7 services', 'easy accessibility', 'comprehensive website services', 'fast and convenient services' and 'privacy' reveals that the values of F are 2.334, 1.861, 0.957, 0.935, 1.682 and 1.516 and the corresponding p values are found to be 0.041, 0.099, 0.044, 0.045, 0.013 and 0.018 respectively which is less than 0.05, indicating rejection of null hypothesis and accepting alternate hypothesis.

- The preference of digital banking facilities like 'Easy accessibility', 'free of charge services' and 'discounts and rewards' are not based on education, whereas the

preference towards '24*7 services', 'easy accessibility', 'comprehensive website services', 'fast and convenient services' and 'privacy' facility is based on the education of the respondents.

- Mean scores values for 'ease of accessibility' and 'better cash management' (4.17) have the highest average mean score. This shows that almost all the bank customers prefer the use of easy accessibility services and cash management services irrespective of their profession.

- In the case of '24*7 services', 'free of charge services', and 'Privacy', the mean scores lie between 4.09 and 3.97, which also indicates the maximum preference of digital banking services by all customers. 'Fast and convenient services' and 'discounts and rewards' have the mean score of 3.34 and 3.69. The digital banking services of 'comprehensive website services' enjoy the minimum preference by the customers that exhibit the lowest mean score of 2.32 when compared with the profession of the respondents.

- The one-way ANOVA results indicates that there is significant difference between the all groups and the profession of the respondents since the p value of '24*7 services', 'easy accessibility', 'free of charge services', 'comprehensive website services', 'fast and convenient services', 'privacy', 'better cash management' and 'discounts and rewards' are lesser than 0.05, i.e., the p values are 0.026, 0.029, 0.049, 0.032, 0.045, 0.006, 0.022 and 0.30 respectively.

- There is a significant difference between Profession and Digital Banking services.

- The analysis of net banking facilities using Pearson Product-Moment Correlation Coefficient shows that there exists a difference among all the variables under net banking facility. Inter correlated factors are as follows:

  o 24*7 service positively correlates with easy accessibility (0.764), free of charge services (0.550), privacy (0.567), better cash management (0.586) discounts and rewards (0.560) at 0.01 level of significance and correlates with comprehensive services (0.058) and fast and convenient services (0.076) at 0.05 level of significance.

- Easy accessibility positively correlates with 24*7 services (0.764), free of charge services (0.482), privacy (0.596), better cash management (0.593), and discounts and rewards (0.549) at 0.01 level of significance.

- Free of charge services positively correlates with 24*7 services (0.550), easy accessibility (0.482), privacy (0.575), better cash management (0.554), and discounts and rewards (0.767) at 0.01 level of significance and correlates with fast and convenient services (0.054) and comprehensive website services (0.086) at 0.05 level of significance.

- Comprehensive website services positively correlate with fast and convenient services (0.506) at 0.01 level of significance and with 24*7 services (0.058) and free of charge services (0.086) at 0.05 level of significance. It negatively correlates with better cash management (-0.089)

- Fast and convenient services positively correlate with comprehensive website services (0.506) at 0.01 level of significance and 24*7 services (0.076) and free of charge services (0.054) at 0.05 level of significance.

- Privacy positively correlates with 24*7 services (0.567), easy accessibility (0.596), free of charge services (0.575), better cash management (0.695) and discounts and rewards (0.648)

- Better cash management is positively correlates with 24*7 services (0.586), easy accessibility (0.593), privacy (0.695) and discounts and rewards (0.580) and negatively correlates with comprehensive website services (-0.089).

- Discounts and rewards is positively correlates with 24*7 services (0.560), easy accessibility (0.549), free of charge services (0.767), privacy (0.648) and better cash management (0.580)

- The customers prefer digital banking for their easy accessibility and for its quality. Hence banks need to enhance its quality to retain the digital banking users and also to attract potential users. Banks can concentrate on highlighting their digital banking features on their website and make the digital banking procedures simpler so that even customers without technical knowledge can adopt digital banking services.

PART III

9.1.3 To Identify the Issues and Challenges Faced by Customers while Adopting Digital Banking Services

This section identified the various issues and challenges faced by customers while adopting digital banking services. Also, the demographic characteristics like gender, education and profession were correlated with the issues and challenges. The following are the findings.

- The mean scores of females are higher than that of males in the case of 'Waiting for long time for conducting transactions', and 'Too many steps in processing transaction' whereas for 'not providing information', 'not being able to maintain security', 'not giving fast response' and 'leaving the operation unfinished the mean scores of males are higher than that of the females.

- The p value is greater than 0.10 for the respondent's opinion on 'leaving the operations unfinished' (0.754) which indicates rejection of null hypothesis at 10% significant level. Whereas in the cases of 'not providing information' (0.049), 'Not being able to maintain security' (0.012), 'Not giving fast response' (0.04) and 'Waiting for long time to conduct transactions' (0.021), the p value is less than 0.05 and therefore at 5% level of significance, indicating rejection of null hypothesis. Similarly, for 'Too many steps in processing transaction' (0.002), p value is less than 0.01 and therefore accepting the alternate hypothesis at 1 % level of significance.

- There is significant difference between the customers' gender and opinion towards 'leaving the operations unfinished', at 10% significant level and 'not providing information' (0.049), 'Not being able to maintain security' (0.012), 'Not giving fast response' (0.04) and 'Waiting for long time to conduct transactions' (0.021), 'at 5% significant level and Too many steps in processing transaction' at 1% significant level. Hence Issues and Challenges with Digital Banking services are associated with the gender of the respondents.

- Mean score and standard deviation relating to respondents' education status and their opinion towards issues and challenges faced by the customers while adopting Digital banking services. As per the results, the mean score values for' Waiting for

long time for conducting transactions' (4.16) and 'Not giving fast response' (4.03) have the highest average mean score for the customers. This shows that almost all the bank customers faced this time-consuming issue irrespective of their status in educational background. In the case of 'Not providing information', 'Leaving the operation unfinished', 'Too many steps in processing transaction', the mean scores lie between 3.79 and 3.95, which also indicates the maximum respondents faced majority of the issues with digital banking services. 'Not being able to maintain security' has the mean score of 3.68. Thus, majority of the respondents irrespective of their education status faced all the above mentions issues and challenges while adopting digital banking services.

- Analysis on the challenges the respondents face with their education level. It is found that there is no significant difference between groups as determined by the values of F which are 0.373. 0.206 and 0.809, and values of p which are 0.867, 0.960 and 0.543 respectively issues like 'not providing information', 'not giving fast response', and 'leaving the operation unfinished'. The null hypothesis is therefore accepted in the above cases since the p value is more than 0.05. An analysis on the issues that includes 'not being able to maintain security', 'waiting for long time to conduct transactions' and 'too many steps in processing transactions', the values of F are 2.235, 1.156 and 1.434 and the corresponding p values are found to be 0.049, 0.032 and 0.021 respectively which is less than 0.05, indicating rejection of null hypothesis and accepting alternate hypothesis.

- Hence, it is inferred that the issues and challenges like 'not providing information', 'not giving fast response', and 'leaving the operation unfinished' are not based on education, whereas includes 'not being able to maintain security', 'waiting for long time to conduct transactions' and 'too many steps in processing transactions' are based on the education of the respondents.

- Mean scores and standard deviation relating to Profession of the respondents and the various issues and challenges they face while adopting digital banking services. As per the results, the mean score values for 'not giving fast response' and 'waiting for long time for conducting transactions' have the highest average mean score of

3.99 and 4.10 respectively. Majority of the respondents face many challenges while adopting Digital banking services. In the case of 'not providing information', 'leaving the operation unfinished' and 'Too many steps in processing transactions' the mean scores lies between 3.89 and 3.77, which also indicates the maximum customers faces issues with digital banking services. The security aspect of issues in the given study which is 'Not being able to maintain security' enjoy the minimum preference by the customers that exhibit the lowest mean score of 3.63 when compared with the profession of the respondents. Hence, it can be inferred that maximum respondents opined that they face issues and challenges while adopting digital banking services but at the minimum level since average mean score for all the variable are above 3.85.

- The one-way ANOVA results indicates that there is significant difference between 'not providing information', not giving fast response', 'leaving the operation unfinished', and 'too many steps in processing transaction' and the profession of the respondents since the p value of are lesser than 0.05, i.e., the p values are 0.043, 0.049, 0.017 and 0.038 respectively. The null hypothesis is therefore rejected in the above cases. Whereas, in cases of 'not being able to maintain security' and 'waiting for long time for conducting transactions' p-value is found to be greater than 0.05 i.e., 0.182 and 0.158 respectively. Therefore alternative hypothesis is accepted.

- Hence, it is inferred that there is a significant difference between Profession and issues and challenges faced in digital banking services adoption with regard to 'not providing information', not giving fast response', 'leaving the operation unfinished', and 'too many steps in processing transaction'. It is also found that with regards to 'not being able to maintain security' and 'waiting for long time for conducting transactions', there is no association between profession and issues and challenges while adopting digital banking services.

- It is observed from the results that majority of the customers face challenges relating to digital banking services. Still, they want more user-friendly features to access their account. Hence it is vital for all banks to help customers in overcoming their challenges. Also, banks can conduct more campaigns to train customers regarding the various aspects of digital banking services.

PART IV

9.1.4 To Quantify Various Security Measures Adopted by Customers while using Digital Banking Services

In this section factor analysis is done to group the security measures taken by customers while using digital banking services. Major finding include Digital banking users were feeling in securable while adopting digital banking services. Other detailed findings are as follows.

- The percentage of variances in "Factor One," accounted for 41.95% of the variance, where 8 items loaded on this factor. The variables are item 9 - 0.776, item 11 – 0.760, item 4 – 0.750, item 1 - 0.745, item 10 – 0.739, item 5 - 0.735, item 13 - 0.712 and item 20 – 0.696. Among the 8 variables, the variable such as "Do not write your Digital Banking Username together with your Password" and 'Access your bank website only after typing the URL in the address bar of your browser' are the statements that contributes to regular and routine activities by the user in order to protect from security challenges. Hence, the researcher grouped these factors as "Users regular security practices in Digital banking".

- The percentage of variances in "Factor Two" accounted for 50.783% of the variance, where 8 statements were loaded on this factor such item 14 – 0.446, item 2 - 0.383, item 16 - 0.372, item 3 - 0.323, item 6 – 0.414, item 15 - 0.498, item 19 - 0.461 and item 12 - 0.518. Among the 8 variables, the variable such as "Never respond to email/SMS or calls which enquire about your personal information, password or one time SMS." are the statements that creates awareness on possible threats. Hence, the researcher grouped these factors as "User awareness of Threats".

- "Factor Three" which accounted for 56.220% of the variances. In this segment, another 3 statements were loaded they are item 17 - 0.420, item 7 - 0.424 and item 21 - 0.566. Among the 3 variables, the variable such as "Change your Digital Banking Password on a regular basis" are the statements that encourages employees for quality of work life. Hence, the researcher grouped these factors as "User Precautionary Measures".

- In "Fourth Factor" the percentage of variance accounted for 61.100%. In this segment, another 3 items which were loaded they are item 8 – 0.366, item 18 - 0.309 and item 22 – 0.709. Among the 4 variables, the variable such as "Always check the last log-in date and time in the post login page" are the statements that encourages employees for quality of work life. Hence, the researcher grouped these factors as "User's safety concerns before and after logging out" provided by the health care sector which leads to quality of work life.

- The present study has divided the Security measures adopted by customers while using Digital Banking services into 4 categories. The factors were grouped into four categories such as Users regular security practices in Digital banking, User awareness of Threats, User Precautionary Measures, User's safety concerns before and after logging out".

- The above analysis shows the total composition of each factor that provides information regarding the items that constituted these four factors with their factor loadings and eigen values and they explain the variance of each factor. The four-factor solution is accounted for 61.100% of the explained variance, which is higher than 50%. All the dimensions are named on the basis of the contents of final items making up each of the four dimensions. The commonly used procedure is "Varimax Orthogonal Rotation" for the factors whose eigen values are greater than 1.0 that is employed in the analysis.

- Results reveals that customers feel security related issues while using digital banking services. Precautionary measures need to be taken by banks and it should be conveyed to the customers at proper intervals. Hacking of the accounts must be prevented by designing the software so that customers can feel secured about their transactions.

PART V

9.1.5 To Develop Service Quality Dimension Model that Analyses the Adoption and Acceptance Level of Digital Banking Services

Results reveals that security related issues have a negative impact on usage of digital banking services. Hence, banks must try to resolve the security concerns related to digital banking technology of banking customers in order to maximize their customer acceptance of digital banking services. Also, banks must take several measures to improve the trust and privacy of their procedures involved in their IT infrastructure. Banks can also collaborate with digital service providers so that it will help banks to have better control regarding security issues and also to improve its quality.

- The APC value of the above model is 0.296 and the ARS value is 0.691. The AVIF value is 3.985. The AFVIF value is 4.162 (standard value < 5). The GOF value is 0.148 (standard values: small >= 0.01; medium >= 0.25; large >= 0.36), so the value fits in small range. The SPR value is 0.875 (standard value => 0.7). From the above discussions it could be inferred that the model fit indices are within the standard values. Thus, it indicates that the model fits with the data.

- It is inferred that significant positive difference exists between the paths Responsiveness and Customer Acceptance ($\beta = 0.16$; $t = 2.654$; $p = 0.000$); Assurance and Customer Acceptance ($\beta = 0.12$; $t = 2.148$; $p = 0.000$); and Security and Customer Acceptance ($\beta = 0.10$; $t = 1.410$; $p = 0.000$); Perceived usefulness and Customer Acceptance ($\beta = 0.000$; $t = 1.025$; $p = 0.07$); Perceived ease of use and Customer Acceptance ($\beta = 1.001$; $t = 1.741$; $p = 0.00$); Customer Acceptance and Intention to adopt banking services ($\beta = 0.081$; $t = 2.541$; $p = 0.000$).

- The indirect effect of Responsiveness and intention to adopt banking services is 0.129 ($\beta = 0.129$; $p = 0.000$) and it is significant at 1 per cent. The indirect effect of Assurance on intention to adopt digital banking services is 0.094 ($\beta = 0.094$; $p = 0.000$) and it is significant at 1 per cent. The indirect effect of Security on intention to adopt digital banking services is found to be 0.080 ($\beta = 0.080$; $p = 0.000$) and it is significant at 1 per cent.

- The indirect effect of Perceived usefulness on intention to adopt digital banking services is (β = 0.084; p = 0.000) and it is significant at 1 per cent. The indirect effect of Perceived ease of use on intention to adopt digital banking services is found to be 0.808 (β = 0.808; p = 0.000) and it is significant at 1 per cent. The indirect effect of Customer Acceptance and Intention to adopt banking services is 0.810 (β = 0.810; p = 0.000) and it is significant at 1 per cent. Hence it could be inferred that constructs Responsiveness, Assurance, Security, Perceived usefulness, Perceived ease of use and Customer acceptance have a significant and indirect effect on Intention to adopt digital banking services.

- The model reveals that once the customers accept the digital banking then it is easy for the banks to make them adopt digital banking services. Hence, banks must take measure to create awareness on the acceptance of digital banking services by organizing training sessions, conducting campaigns at customer locations and by conducting periodic self-assessments on their steps taken to enhance digital banking features.

9.2 SUGGESTIONS

PART I

TO ANALYSE THE DEMOGRAPHIC AND OTHER FACTORS INFLUENCING THE ACCEPTANCE AND ADOPTION OF DIGITAL BANKING IN COIMBATORE DISTRICT

TOOLS: PERCENTAGE ANALYSIS

FINDINGS: 30% of the respondents have a postgraduate degree. 27% of the respondents have under graduate degree.

SUGGESTIONS: It can be inferred that individuals who are more educated are likely to have more access and experience to technological innovations. So, banks can conduct training programs to customers who don't have technical knowledge regarding digital banking

FINDINGS: 28.8%of the respondents belongs to the self-employed stream, 26.9% of the respondents are professionals, 35.3% of the respondents are from service stream.

SUGGESTIONS : Digital banking campaigns can be organized to unprofessional.

FINDINGS : 32.11% of the respondents have an annual income of 8 - 10 lakhs. 37.44 % of the respondents have yearly income level of above 1 lakhs.

SUGGESTIONS : Banks can also motivate customers with low-income level people to adopt digital banking facilities.

FINDINGS : Majority of the customers (66.2%) opined that private sector banks are technically advanced than public sector banks.

SUGGESTIONS: Public sector banks must provide more digital banking services to the customers

FINDINGS : Majority of the banking customers, 28.3% prefers quality of the services offered by the banks as the important attribute in measuring the banks. That is followed by Technology used (28%).

SUGGESTIONS : Every banks should concentrate more on providing quality services and improving technologies to retain the present customers and to create new customers

FINDINGS : 30.8% of the respondents says they have average knowledge in digital banking services

SUGGESTIONS : Banks should conduct more campaigns and training sessions for their customers to get advanced knowledge in digital services

PART II

TO EXPLORE THE OPINION OF BANKING CUSTOMERS REGARDING THE PURPOSE OF USAGE OF DIGITAL BANKING SERVICES

TOOLS : t-TEST, ONE WAY ANOVA, CORRELATION

FINDINGS : Mean scores values for 'ease of accessibility' and 'better cash management' (4.17) have the highest average mean score. This shows that almost all the bank customers prefer the use of easy accessibility services and cash management services irrespective of their profession.

SUGGESTIONS

- The customers prefer digital banking for their easy accessibility for its quality. Hence banks need to enhance its quality to retain the digital banking users and also to attract potential users.

- Banks can concentrate on highlighting their digital banking features on their website and make the digital banking procedures simpler so that even customers without technical knowledge can adopt digital banking services.

- To support potential adopters of digital banking services, communication about various features about it must be given by bankers at all branches especially branches at rural areas.

- Communication can emphasize on the features like, 'ease of use', 'time saving', '24*7 services', 'flexibility' and 'information quality and all-time availability'. Hence, banks websites have to designed accordingly so that these features reach the minds of the customers.

PART III

TO IDENTIFY THE ISSUES AND CHALLENGES FACED BY CUSTOMERS WHILE ADOPTING DIGITAL BANKING SERVICES

TOOLS : t-TEST, ONE WAY ANOVA

FINDINGS : It is observed from the results that majority of the customers face challenges relating to digital banking services.

SUGGESTIONS : Banks should provide more user-friendly features to access customer's account.

PART IV

TO UNDERSTAND VARIOUS SECURITY MEASURES ADOPTED BY CUSTOMERS WHILE USING DIGITAL BANKING SERVICES

TOOLS : FACTOR ANALYSIS

FINDINGS : The four-factor solution is accounted for 61.100% of the explained variance, which is higher than 50%. Results reveals that customers feel security related issues while using digital banking services.

SUGGESTIONS

- Precautionary measures need to be taken by banks and it should be conveyed to the customers at proper intervals.

- Hacking of the accounts must be prevented by designing the software so that customers can feel secured about their transactions.

PART V

TO DEVELOP SERVICE QUALITY DIMENSION MODEL THAT ANALYSES THE ADOPTION AND ACCEPTANCE LEVEL OF DIGITAL BANKING SERVICES

TOOLS : SERVQUAL AA MODEL

FINDINGS : it is inferred that significant positive difference exists between the paths Responsiveness and Customer Acceptance ($\beta = 0.16$; $t = 2.654$; $p = 0.000$); Assurance and Customer Acceptance ($\beta = 0.12$; $t = 2.148$; $p = 0.000$); and Security and Customer Acceptance ($\beta = 0.10$; $t = 1.410$; $p = 0.000$); Perceived usefulness and Customer Acceptance ($\beta = 0.000$; $t=1.025$; $p=0.07$); Perceived ease of use and Customer Acceptance ($\beta = 1.001$; $t = 1.741$; $p = 0.00$); Customer Acceptance and Intention to adopt banking services ($\beta = 0.081$; $t = 2.541$; $p = 0.000$).

SUGGESTIONS

- From the results, it is identified that the variable perceived ease of use has a positive impact on digital banking usage which conveys increase in the usage of digital banking services by the customers can be achieved by making the usage of services more flexible and easier to use.

- Banks must take necessary actions to develop their digital banking website and the interface so to facilitate ease of use among various banking customers.

- Banks need to create awareness on the usefulness of various digital banking services to increase digital banking adoption.

SUGGESTIONS BASED ON SECONDARY DATA

- Marketing campaigns organized by the banks must consider this factor and proper communication to customers would increase awareness that in turn results in increased acceptance of various digital banking services.

- Banks must offer training sessions to their customers on usage of their website interface at all their branches especially in rural areas.

- Digital banking applications can also be in local language as well so that the user will feel more comfortable.

- Conducting survey regularly about digital banking services can also help the bankers for their continuous improvement.

- Even though many steps have taken by the Government on digital banking like opening Data Base Units (DBU's) in many states it has not reached and utilised fully by the common people. So the Government must take necessary steps to open DBU in all states and should give proper training to the customers.

9.3 CONCLUSION

India is witnessing astronomical growth in the field of banking over the past few years especially after digitalization of Indian economy. The rapid developments in banking IT infrastructure have contributed to the constant growth of Indian banking industry especially in the last decade. Introduction of new service channels has significantly contributed for the sustainable growth of banking sector and definitely digital banking is one channel that has paved the way.

In the past decades, Digital banking acceptance has shown a remarkable growth. In this research, the researcher analyzed customer acceptance and adoption of digital banking services in Coimbatore district. The researcher has identified the factors that influence the acceptance and adoption of digital banking services and also explored their opinion on the purpose of usage of digital banking services. Also, this study identified the various issues and challenges thereby quantifying the security measures adopted while using digital banking services. The researcher also proposed a structural equational modelling for acceptance and adoption of digital banking services in service quality dimension.

The model confirms that positive difference exists between the paths Responsiveness, Assurance, Security, Perceived usefulness, Perceived ease of use with Customer Acceptance and that has indirect effect on customers intention to adopt digital banking services. Hence the findings of this research would definitely help the Indian commercial banks in framing the banking regulations regarding the digital banking services and upgrading the banking websites.

Banking sector in India started collaborating with their foreign counterparts to emphasize on their technologies towards e-banking. Especially the private sector banks have shown a rapid growth in adopting technology in order to serve their customers. Public sector banks also shown a gradual increase in adopting technology after Covid19 pandemic. And many other co-operative and regional rural banks also started to implement the technology. Combined contribution of technology policy enhancements and security assurance should drive e-banking adoption. Indian banking sector have a unique advantage because of its branch network and high-volume customer base. Therefore, technology enablement can definitely uplift the growth of Indian banking sector thereby uplifting the Indian economy.