

Customer Use of Banking Technologies

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Abstract: *Electronic Banking incorporates a multitude of platforms such as internet banking, automated teller services and mobile phone banking to deliver banking products to the customer. The proposed study attempts to throw light into pattern of customer use and non - use of banking technologies and the extent of their utilization.*

Key Words: *Electronic Banking, Automatic Teller Machine, Internet Banking, Mobile Banking.*

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I. Introduction

Electronic Banking is the automated method of delivery of new and traditional banking products and services directly to the customer through electronic communication channels. It is the process by which a customer performs banking transactions electronically without visiting a brick and mortar institution^[5]. Electronic Banking incorporates systems that enable individual customers to access their accounts, transact with speed and obtain current and updated information on latest financial products and services through public or private networks. It accommodates a variety of platforms such as internet banking, telephonic and television based banking, automated teller services, mobile phone banking as well as personal computer based and offline banking services. Since many of these technology services have become popular in our country, customers now have the opportunity to enjoy the benefits offered by advanced electronics such as automatic teller machines, mobile phones, personal digital assistants and personal computers and experience banking services through privileges and features offered by advanced information technologies. Electronic Banking has in fact become the way of E-Commerce. Banks will have to incur capital costs for various technology costs to save on operating costs, but must derive maximum returns from such assets while cutting down operating expenses at the same time.

II. Objective of the study

The proposed study attempts to identify the preferred methods of banking transactions among respondents. The study also attempts to identify the most popular method of transactions among the respondents and their purposes of use. The impact of chosen parameters on the pattern of customer use was subjected to statistical analysis.

III. Research Methodology Used

For secondary information, preliminary literature surveys were conducted to analyse the current status of use and adoption of banking technologies through online and offline search for articles and research papers published in various magazines and journals for secondary information. For primary information, questionnaire in hard copy was prepared and distributed to the sample population, and a survey was conducted using the questionnaire so prepared in an autonomous professional institution near Kochi. The questionnaire helped gather data from a sample size of 172 respondents on proposed variables. The sampling methodology adopted was convenience sampling.

IV. Contribution from the study:

The study has attempted to identify popular methods of banking transactions among respondents. The study has also attempted to identify the preferred methods of banking transactions among the respondents and their purposes of use.

V. Literature Review

Literature survey was primarily based on the articles and research papers available both online and offline. The parameters mentioned in the papers obtained through literature review were used in the formulation of the questionnaire. One can find from literature that researchers have made attempts in the past to identify and classify technology users as Explorers, Pioneers, Skeptics, Paranoids and Laggards in their decreasing order of

technology readiness^[6,7]. Laggards have little motivation to adopt technology and a high level of resistance in using new technologies, as Masood Badri et. al.^[6] point out. Researchers have formulated different conceptual and theoretical frameworks for customer use of banking technologies, as mentioned in their works. Ankita Sharma et. al^[3] observe that banking customers of today have a virtual menu of options as far as delivery channels are concerned and all these are benefits of technology. In their work, Karthikeyan et.al^[4] have commented that the fast augment in number of computerized deliverance channels and customers' preference to use the online products because of versatile attributes are placing pressure on banks to respond aggressively to meet the customers' needs. Krishna Reddy et.al.^[5] in their work have classified electronic banking into three types such as informational, communicative and transactional depending upon the function involved. They conclude that banks should improve their promotional and communication strategies to make aware the customers regarding IT services and build positive perception to improve the level of usage of E-Banking with high level of satisfaction.

VI. Respondent Demographics

As many as 172 valid responses representing a target population of 1230 were received. 74 male respondents and 98 female respondents participated in the survey as shown in Figure 2. Out of 172 responses received, 152 were earning income below Rs. 25,000/-, 6 were earning between Rs. 25,000/- and Rs. 40,000/- and 14 were earning income above Rs. 40,000/- as shown in Figure 1.

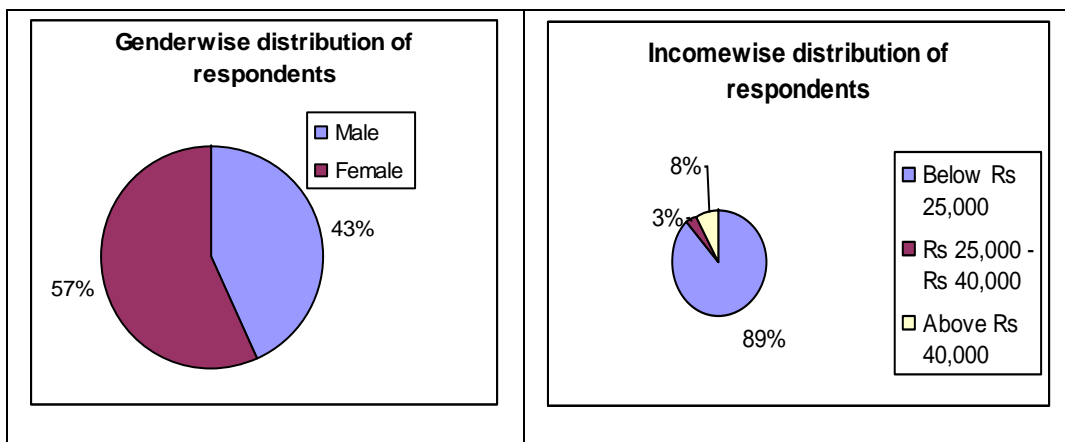


Figure1: Gender wise and Income wise distribution of respondents

111 of the respondents were undergraduates while 61 of the respondents had qualifications of graduation and above, as shown in Figure 2. 117 of the respondents held their bank accounts in Public Sector Banks alone including State Bank of India and other Public Sector Banks. 28 respondents held their accounts in Private Sector Banks alone while 21 respondents held their accounts in both Public Sector and Private Sector banks. 6 respondents declined to reveal information on banks where they hold their bank accounts (see Figure 2).

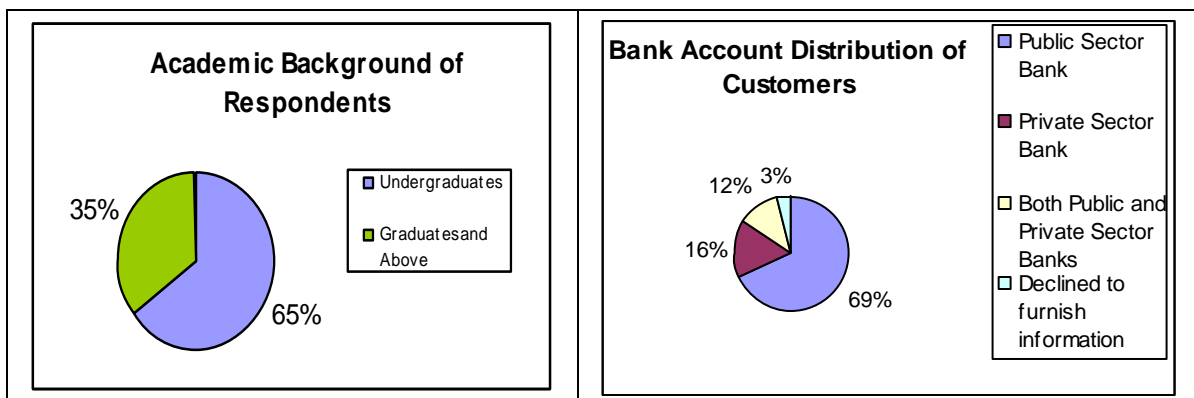


Figure2: Academic Backgrounds and Distribution of Bank Accounts of Respondents

VII.Results

The respondents were asked to rank their preferred method of banking transactions among Automatic Teller Machine, Internet Banking, Mobile Banking and Branch Banking. Out of 172 respondents, 115 (ie; 66.86%) consider ATM as their most preferred method of banking transactions. 47 (ie; 27.33%) of the respondents consider Internet Banking as the most preferred method of banking transactions, 7 (ie; 4.07%) respondents consider Mobile Banking as their most preferred method of banking transactions while 3 (ie; 1.74%) of the respondents consider Branch Banking as the most preferred method of banking transactions. Survey results indicate popularity in the use of ATM services among respondents over internet and mobile banking counter parts.

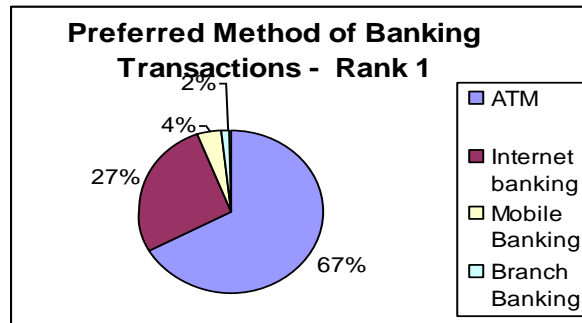


Figure3: Respondent’s most preferred method of banking transactions

7.1 Respondent Use of ATM Services:

Out of 172 respondents, 32 respondents (about 19%) use ATM services for checking account balance regularly. 52 respondents (about 30%) use ATM services to check their account balance quite often, 46 respondents (about 27%) use ATM services to check their account balance occasionally, 35 respondents (about 20%) rarely use ATM services to check their account balance while 7 respondents (about 4%) never use ATM services to check their account balance (see figure 4).

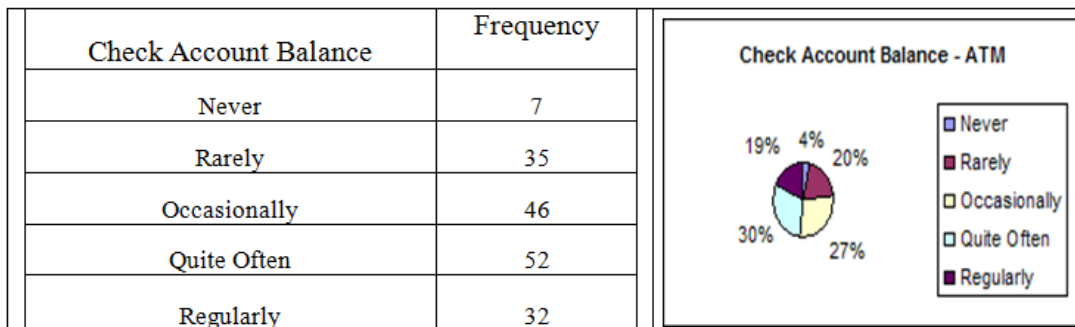


Figure4: Respondent use of ATM services to check account balance

12 respondents (about 7%) regularly use ATM services for account statement. 28 respondents (about 16%) use ATM services for account statement quite often, 48 respondents (about 28%) use ATM services for account statement occasionally, 63 respondents (about 37%) rarely use ATM services for account statement while 21 respondents (about 12%) never use ATM services for account statement (see figure 5).

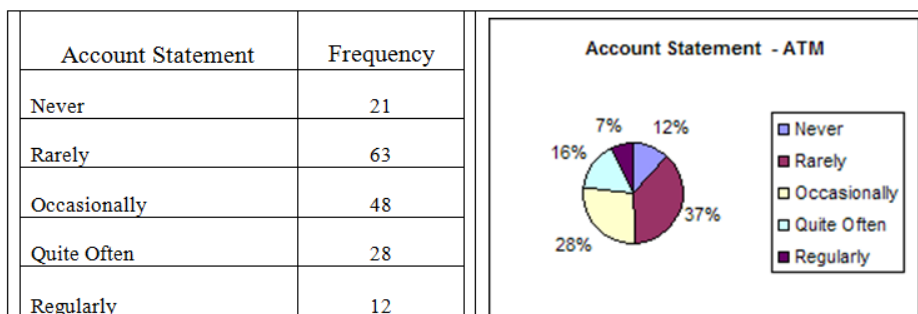


Figure5: Respondent use of ATM services for account statement

36 respondents (about 30%) use ATM services for cash withdrawals regularly. 52 respondents (about 43%) use ATM services for cash withdrawals quite often, 20 respondents (about 16%) use ATM services for cash withdrawals occasionally, 11 respondents (about 9%) rarely use ATM services for cash withdrawals while 3 respondents (about 2%) never use ATM services for cash withdrawals (see figure 6).

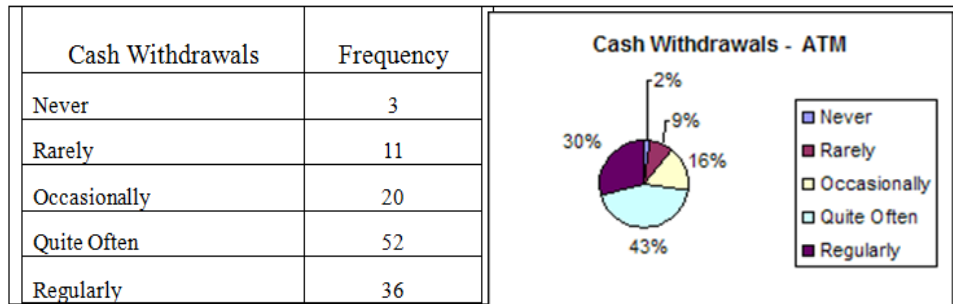


Figure6: Respondent use of ATM services for cash withdrawals

21 respondents (about 12%) use ATM services for fee/bill payments regularly. 31 respondents (about 18%) use ATM services for fee/bill payments quite often, 30 respondents (about 17%) use ATM services for fee/bill payments occasionally, 38 respondents (about 22%) rarely use ATM services for fee/bill payments while 52 respondents (about 31%) never use ATM services for fee/bill payments (see figure 7).

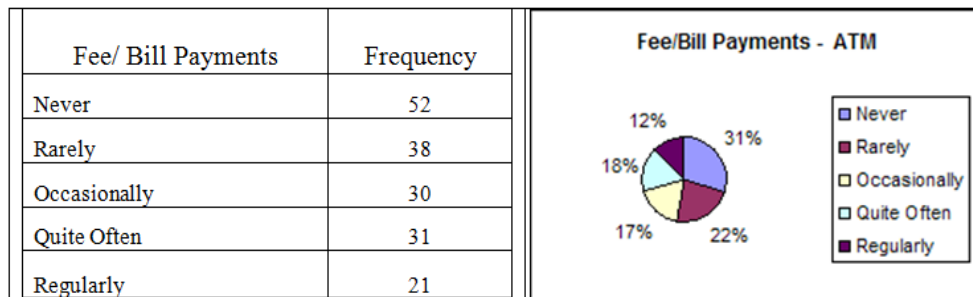


Figure7: Respondent use of ATM services for fee/bill payments

9 respondents (about 5%) use ATM services for money transfer regularly. 18 respondents (about 10%) use ATM services for money transfer quite often, 28 respondents (about 16%) use ATM services for money transfer occasionally, 52 respondents (about 30%) rarely use ATM services for money transfer while 65 respondents (about 39%) never use ATM services for money transfer (see figure 8).

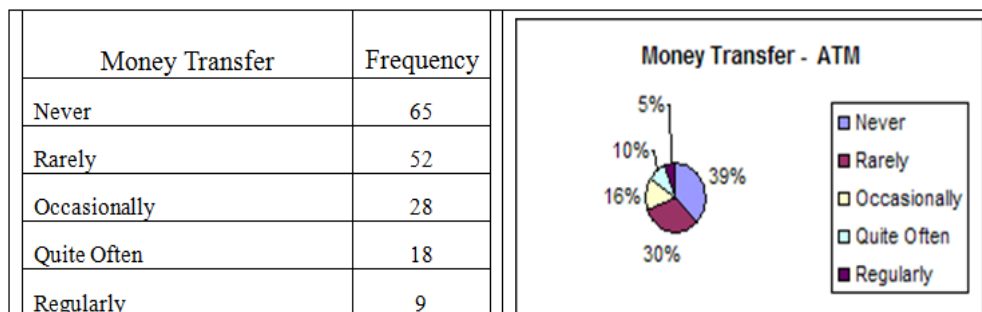


Figure8: Respondent use of ATM services for money transfer

27 respondents (about 16%) use ATM services for shopping regularly. 33 respondents (about 19%) use ATM services for shopping quite often, 41 respondents (about 24%) use ATM services for shopping occasionally, 31 respondents (about 18%) rarely use ATM services for shopping while 40 respondents (about 23%) never use ATM services for shopping (see figure 9).

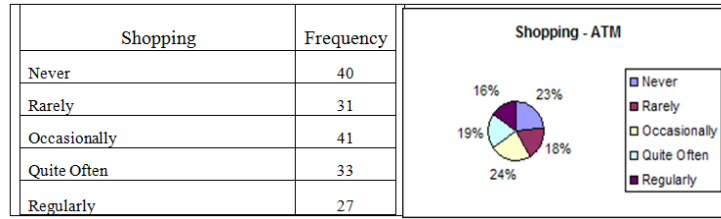


Figure9: Respondent use of ATM services for shopping

24 respondents (about 14%) use ATM services for mobile phone recharge regularly. 19 respondents (about 11%) use ATM services for mobile phone recharge quite often, 22 respondents (about 13%) use ATM services for mobile phone recharge occasionally, 34 respondents (about 20%) rarely use ATM services for mobile phone recharge while 73 respondents (about 42%) never use ATM services for mobile phone recharge (see figure 10).

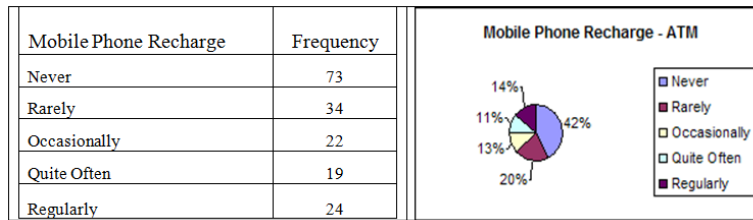


Figure10: Respondent use of ATM services for mobile phone recharge

25 respondents (about 15%) use ATM services for ticket reservation regularly. 22 respondents (about 12%) use ATM services for ticket reservation quite often, 21 respondents (about 13%) use ATM services for ticket reservation occasionally, 33 respondents (about 19%) rarely use ATM services for ticket reservation while 71 respondents (about 41%) never use ATM services for ticket reservation (see figure 11).

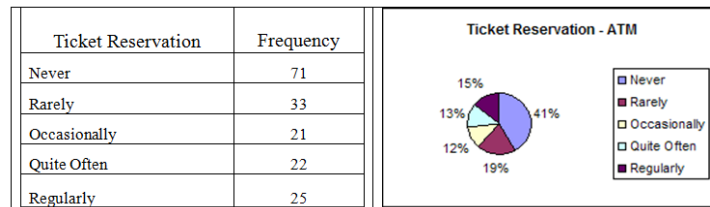


Figure11: Respondent use of ATM services for ticket reservation

From the analysis it is evident that a majority of respondents use ATM services for cash withdrawals, shopping, fee or bill payments and to check account balance.

7.2 Respondent use of Internet Banking Services:

31 out of 172 respondents (about 18%) use internet banking services for checking account balance regularly. 18 respondents (about 10%) use internet banking services to check their account balance quite often, 25 respondents (about 15%) use internet banking services to check their account balance occasionally, 32 respondents (about 19%) rarely use internet banking services to check their account balance while 66 respondents (about 38%) never use internet banking services to check their account balance (see figure 12).

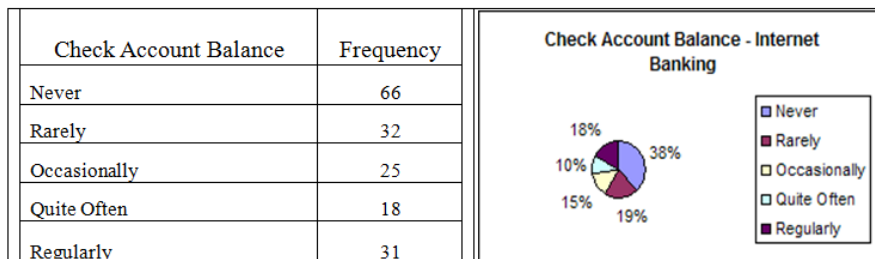


Figure 12: Respondent use of Internet Banking to check account balance

18 respondents (about 10%) use internet banking services for account statement regularly. 17 respondents (about 10%) use internet banking services for account statement quite often, 22 respondents (about 13%) use internet banking services for account statement occasionally, 40 respondents (about 23%) rarely use internet banking services for account statement while 75 respondents (about 44%) never use internet banking services for account statement (see figure 13).

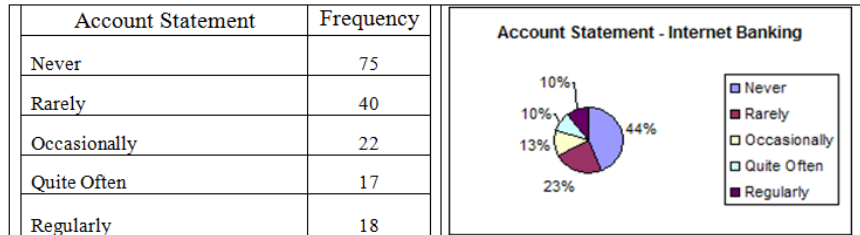


Figure 13: Respondent use of Internet Banking for account statement

29 respondents (about 17%) use internet banking services for fee/bill payments regularly. 35 respondents (about 20%) use internet banking services for fee/bill payments quite often, 21 respondents (about 12%) use internet banking services for fee/bill payments occasionally, 26 respondents (about 15%) rarely use internet banking services for fee/bill payments while 61 respondents (about 36%) never use internet banking services for fee/bill payments (see figure 14).

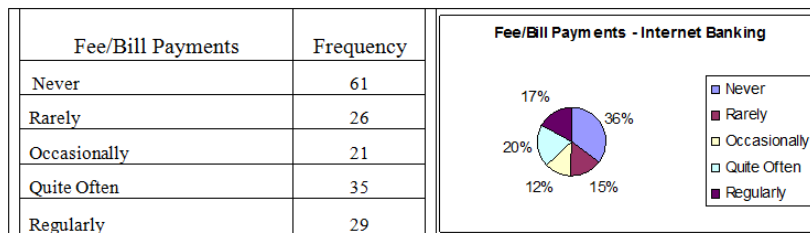


Figure 14: Respondent use of Internet Banking for fee/bill payments

22 respondents (about 13%) use internet banking services for money transfer regularly. 21 respondents (about 12%) use internet banking services for money transfer quite often, 27 respondents (about 16%) use internet banking services for money transfer occasionally, 36 respondents (about 21%) rarely use internet banking services for money transfer while 66 respondents (about 38%) never use internet banking services for money transfer (see figure 15).

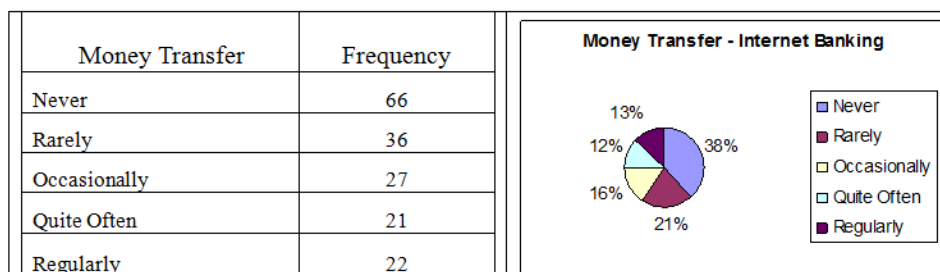


Figure 15: Respondent use of Internet Banking for money transfer

43 respondents (about 25%) use internet banking services for shopping online regularly. 30 respondents (about 17%) use internet banking services for shopping online quite often, 27 respondents (about 16%) use internet banking services for shopping online occasionally, 29 respondents (about 17%) rarely use internet banking services for shopping online while 43 respondents (about 25%) never use internet banking services for shopping online (see figure 16).

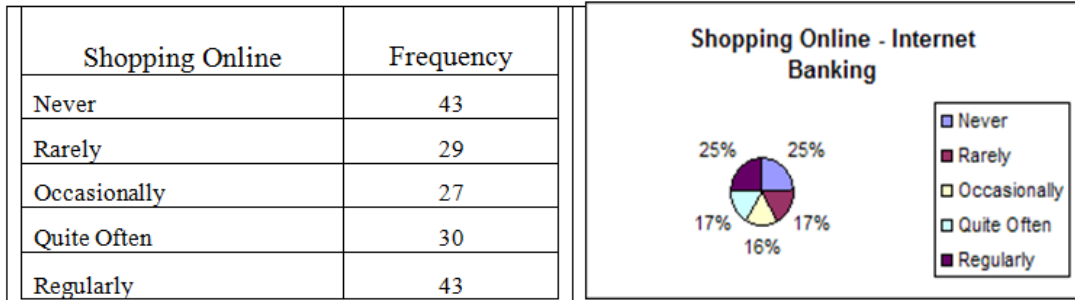


Figure 16: Respondent use of Internet Banking for shopping online

6 respondents (about 3%) use internet banking services for investment and related activities regularly. 5 respondents (about 3%) use internet banking services for investment and related activities quite often, 15 respondents (about 9%) use internet banking services for investment and related activities occasionally, 41 respondents (about 24%) rarely use internet banking services for investment and related activities while 105 respondents (about 61%) never use internet banking services for investment and related activities (see figure 17).

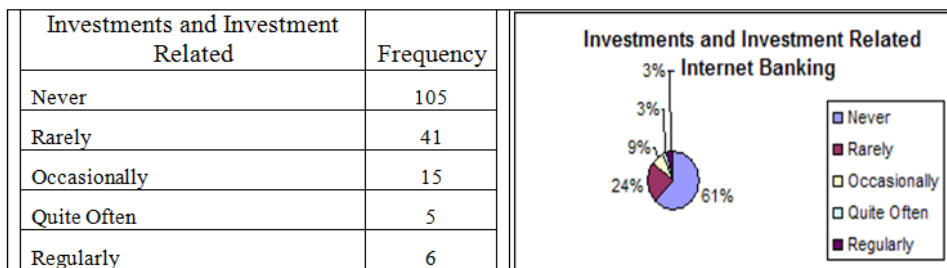


Figure 17: Respondent use of Internet Banking for investment and related activities

40 respondents (about 23%) use internet banking services for ticket reservation regularly. 30 respondents (about 17%) use internet banking services for ticket reservation quite often, 21 respondents (about 12%) use internet banking services for ticket reservation occasionally, 27 respondents (about 16%) rarely use internet banking services for ticket reservation while 54 respondents (about 32%) never use internet banking services for ticket reservation (see figure 18).

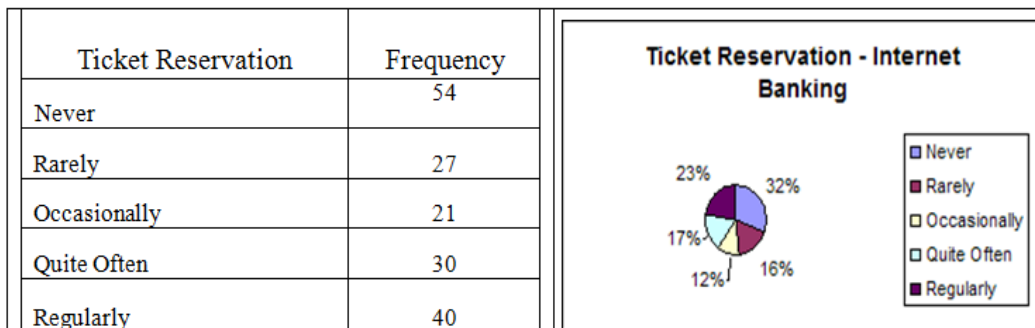


Figure 18: Respondent use of Internet Banking for ticket reservation

18 respondents (about 10%) use internet banking services for service requests and information regularly. 18 respondents (about 10%) use internet banking services for service requests and information quite often, 27 respondents (about 16%) use internet banking services for service requests and information occasionally, 28 respondents (about 16%) rarely use internet banking services for service requests and information while 81 respondents (about 48%) never use internet banking services for service requests and information (see figure 19).

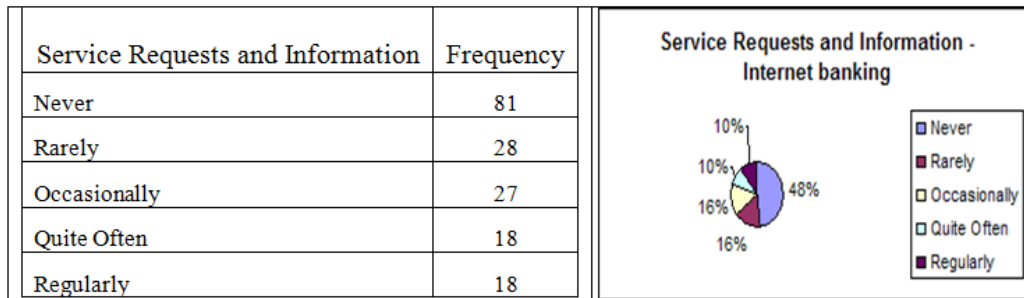


Figure19: Respondent use of Internet Banking for service requests and information

The analysis has made it clear that a majority of respondents use Internet Banking services for shopping, ticket reservation, fee/bill payments and to check account balance.

7.3 Respondent use of Mobile Banking :

26 out of 172 respondents (about 15%) use mobile banking services for checking account balance regularly. 18 respondents (about 10%) use mobile banking services to check their account balance quite often, 16 respondents (about 9%) use mobile banking services to check their account balance occasionally, 39 respondents (about 23%) rarely use mobile banking services to check their account balance while 73 respondents (about 43%) never use mobile banking services to check their account balance (see figure 20).

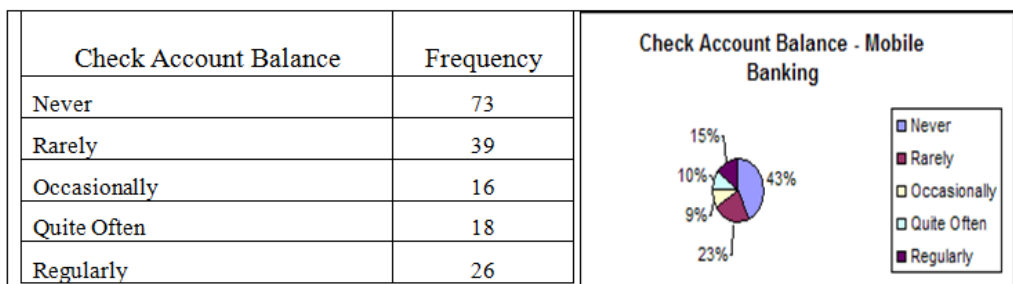


Figure 20: Respondent use of Mobile Banking to check account balance

9 respondents (about 5%) use mobile banking services for account statement regularly. 19 respondents (about 11%) use mobile banking services for account statement quite often, 13 respondents (about 8%) use mobile banking services for account statement occasionally, 40 respondents (about 23%) rarely use mobile banking services for account statement while 91 respondents (about 53%) never use mobile banking services for account statement (see figure 21).

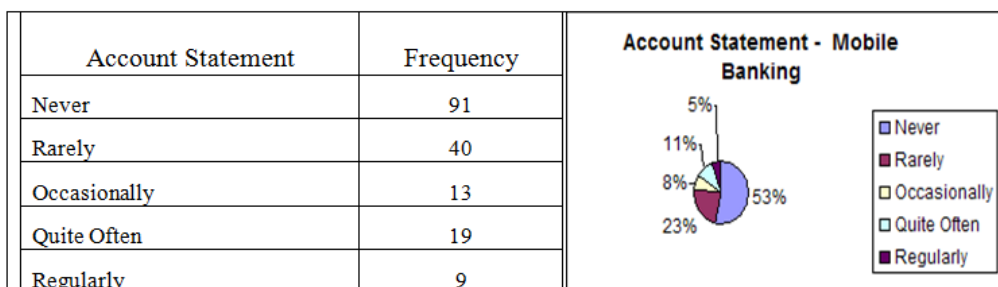


Figure 21: Respondent use of Mobile Banking for account statement

12 respondents (about 7%) regularly use mobile banking services for service requests and information. 13 respondents (about 8%) use mobile banking services for service requests and information statement quite often, 20 respondents (about 12%) use mobile banking services for service requests and information occasionally, 34 respondents (about 20%) rarely use mobile banking services for service requests and information while 93 respondents (about 53%) never use mobile banking services for service requests and information (see figure 22).

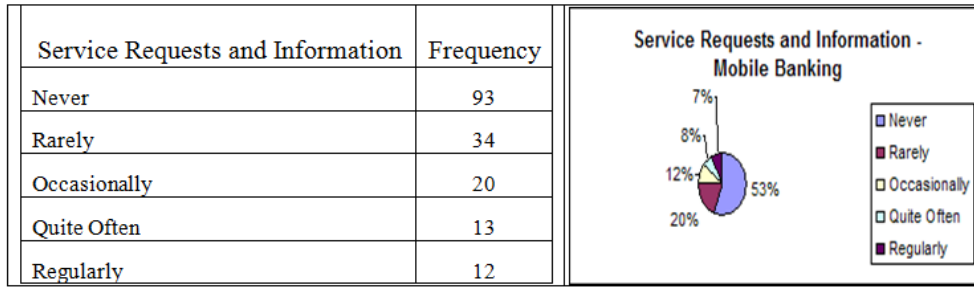


Figure 22: Respondent use of Mobile Banking for service requests and information

13 respondents (about 8%) use mobile banking services for fee/bill payments regularly. 11 respondents (about 6%) use mobile banking services for fee/bill payments quite often, 14 respondents (about 8%) use mobile banking services for fee/bill payments occasionally, 29 respondents (about 17%) rarely use mobile banking services for fee/bill payments while 105 respondents (about 61%) never use mobile banking services for fee/bill payments (see figure 23).

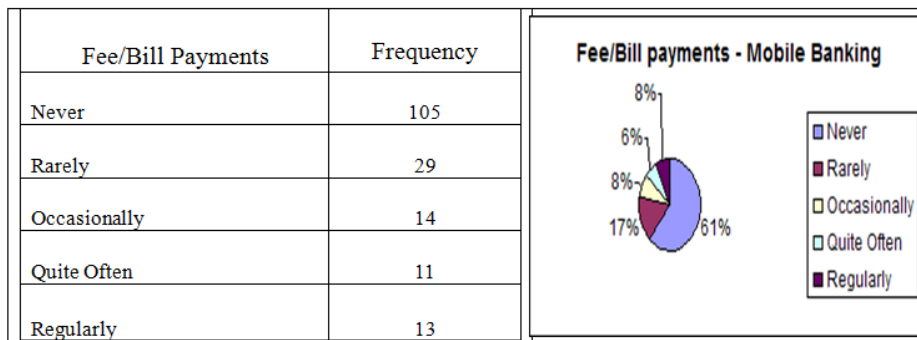


Figure 23: Respondent use of Mobile Banking for fee/bill payments

9 respondents (about 5%) regularly use mobile banking services for money transfer. 7 respondents (about 4%) use mobile banking services for money transfer quite often, 17 respondents (about 10%) use mobile banking services for money transfer occasionally, 41 respondents (about 24%) rarely use mobile banking services for money transfer while 98 respondents (about 57%) never use mobile banking services for money transfer (see figure 24).

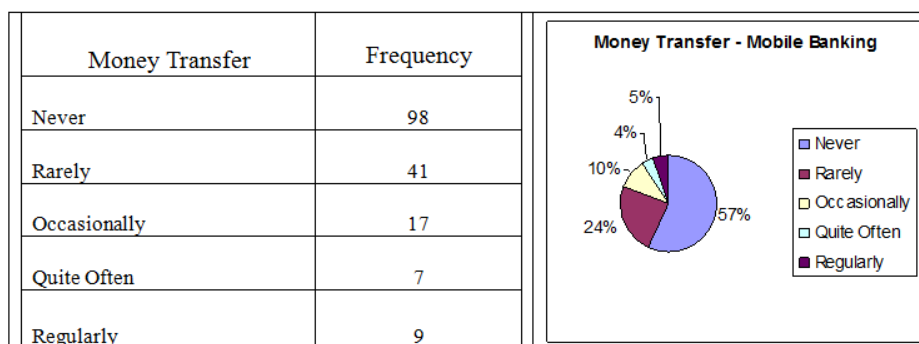


Figure 24: Respondent use of Mobile Banking for money transfer

12 respondents (about 7%) regularly use mobile banking services for mobile wallet/shopping. 12 respondents (about 7%) use mobile banking services for mobile wallet/shopping quite often, 24 respondents (about 14%) use mobile banking services for mobile wallet/shopping occasionally, 32 respondents (about 19%) rarely use mobile banking services for mobile wallet/shopping while 92 respondents (about 53%) never use mobile banking services for mobile wallet/shopping (see figure 25).

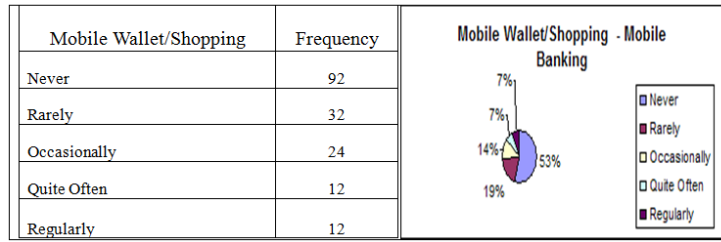


Figure 25: Respondent use of Mobile Banking for mobile wallet/shopping

21 respondents (about 12%) regularly use mobile banking services for mobile phone recharge. 20 respondents (about 12%) use mobile banking services for mobile phone recharge quite often, 23 respondents (about 13%) use mobile banking services for mobile phone recharge occasionally, 25 respondents (about 15%) rarely use mobile banking services for mobile phone recharge while 83 respondents (about 48%) never use mobile banking services for mobile phone recharge (see figure 26).

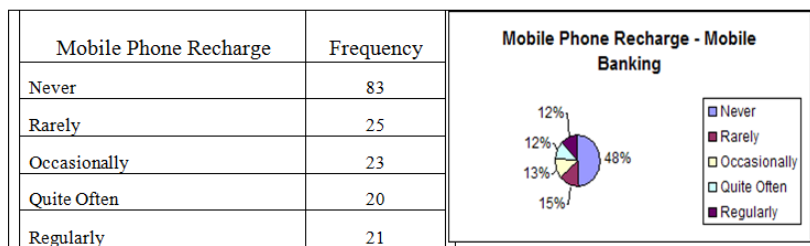


Figure 26: Respondent use of Mobile Banking for mobile phone recharge

13 respondents (about 8%) regularly use mobile banking services for ticket reservation. 18 respondents (about 10%) use mobile banking services for ticket reservation quite often, 14 respondents (about 8%) use mobile banking services for ticket reservation occasionally, 33 respondents (about 19%) rarely use mobile banking services for ticket reservation while 94 respondents (about 55%) never use mobile banking services for ticket reservation (see figure 27).

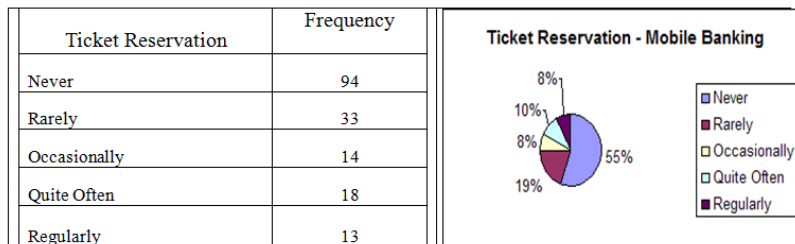


Figure 27: Respondent use of Mobile Banking for ticket reservation

It is thus clear from the analysis that respondents use mobile banking services primarily to check account balance, for mobile recharge, for service requests or information and for ticket reservation.

7.4 Summary :

To sum up, 84 respondents use ATM services to check their account balance, 60 respondents use ATM services for shopping, 52 respondents use ATM services for fee/bill payments, 47 respondents use ATM services for ticket reservation and 40 respondents use ATM services for account statement regularly or quite often. 73 respondent use internet banking services for shopping online, 70 respondents use internet banking services ticket reservation, 64 respondents use internet banking services for fee/bill payments and 49 respondents use internet banking services for checking their account balance. 44 respondents use mobile banking services to check their account balance. ATM services are mainly used by respondents to check their account balance, for shopping and for fee/bill payments. 88 respondents use ATM services for cash withdrawals, either regularly or quite often. Internet banking services are mainly used by respondents for online shopping and ticket reservation as well as fee/bill payments. 44 respondents have indicated that they use mobile banking services to check their account balance while 31 respondents use mobile banking services for ticket reservation, regularly or quite often. Survey results indicate somewhat dominating popularity of ATM and internet banking services among respondents over

the other technology counterpart. Again, as shown in figure 3, 67% of the respondents rank ATM services as their most preferred method of banking transactions. However with the availability of several mobile phone based applications now, mobile banking services are expected to gain more popularity with time.

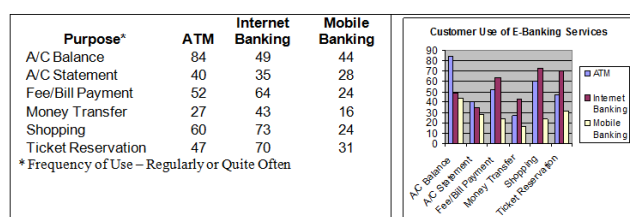


Figure28: Respondent Use of E-Banking Services(Regularly or Quite Often)

VIII. Limitations of the Study

Due to convenience sampling methodology adopted, the entire population of banking customers was not reflected in the study. The study focused mainly on customers within a locality including students in one environment. This may influence customer representation in survey results. The study however, can be extended to accommodate more categories of customers in more areas. A follow up study may also be planned in future to compare the new results with those obtained from the study. Generalisation of the findings to the whole population can then be made with more accuracy and acceptability.

IX. Conclusions and Recommendations

Core banking solutions permit banks to extend full benefits of ATM, mobile and internet banking solutions to all the customers. Again, core banking solutions offer a package of benefits to customers on a round the clock basis from a single centralized location through all possible delivery channels. Such a centralized approach has made ‘single roof’ solution for all financial services a definite possibility. Results of the survey indicate customer inclination towards the use of ATM services when compared to other technology counterparts. But this phenomenon is not likely to continue indefinitely. The dynamic nature of technology and time may change customer preferences. Again, customers will be forced to review their preferences with changes in policies and regulations of the ruling elite, which became evident during the recent demonetization regime. Customers today have a multitude of offers, options and opportunities when choosing banking services and are rapidly evolving in their use of banking services and technologies. Changing customer preferences and behaviours indicate the need to introduce new strategies and latest technologies to attract customers and maintain their loyalty. It seems that customer behaviours change faster than lead times for new products and services. The question of how far technology enabled banking services has met the needs and expectations of the customers in a dynamic environment need frequent and timely investigations and revisions. The credibility of entire banking system will be questioned if rapid changing customer preferences are not identified, customers are not sufficiently informed, their fears, resistances and complaints are not resolved as and when needed and real time solutions are not offered.

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