GAP GYAN
A GLOBAL JOURNAL OF SOCIAL SCIENCES
(ISSN – 2581-5830)
Impact Factor – SJIF – 4.998, IIFS - 4.375
Globally peer-reviewed and open access journal.

PATTERNS AND PROBLEMS OF E-BANKING USAGE: AN EMPIRICAL STUDY IN SELECTED URBAN CITIES OF GUJARAT

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Abstract

The rapid advancement of digital technology has transformed the Indian banking sector, leading to increased adoption of e-banking services among customers. This study examines the utilization patterns and accessibility of e-banking services among 640 respondents from four major urban cities of Gujarat, covering users of both public and private sector banks. The analysis focuses on customers' usage frequency across eight major e-banking services—mobile recharge, telephone bill payments, electricity bill payments, money transfer, rail ticket booking, air ticket booking, online shopping, and investment activities—over the past three months. Additionally, respondents' number of bank accounts, access to online services, mode of access, and perceived security of online transactions are evaluated. Findings reveal that mobile recharge, electricity bill payments, money transfer, and online shopping are the most frequently used services, while telephone and air ticket payments record low usage due to limited need or lack of awareness. Private sector bank customers demonstrate higher adoption of online services compared to public sector banks. A considerable proportion of users access e-banking through mobile devices, indicating a strong shift toward mobile-based transactions. Despite increasing usage, concerns regarding online security persist, with 30.15% respondents perceiving e-banking as insecure. The study highlights positive adoption trends; however, greater awareness, enhanced security frameworks, and improved service quality are recommended to increase customer confidence and maximize digital financial inclusion.

Keywords: *E-Banking; Digital Banking Services; Customer Usage Patterns; Gujarat.*

UTILIZATION OF E-BANKING ADMINISTRATIONS

The respondents of four urban communities are determined by their segment positions in segment 1. Their purposes of banking administrations and their degree of use e-banking are to be asked with various eight heads of administrations. These are - utilization of e-banking for portable re-energize, for taking care of phone bills, for covering of electric bills, for cash move, for railroad ticket booking, for air ticket booking, for internet shopping. The surveys of respondents are characterized with each administration utilized by them during most recent three months and are introduced according to their reactions to close the best utilization of e-banking administrations.

1. MOBILE RECHARGE

Every one of the 640 respondents of four urban communities of Gujarat condition of public and confidential banks involving e-banking administrations for versatile re-energize are introduced in table 1. During most recent three months, how often the respondents have utilizing portable re-energize administrations through e-banking is recorded.

Table 1 Mobile Recharge

	Frequency	Percentage
Not used	102	20.7
One Time only	200	36
Two Time	240	31
More Than Twice	98	12.3
	640	100

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ज्ञान: अध्ययन: परम्परा

It is depicted from table 1 that greater part free from clients has involved e-banking administration for portable re-energize just a single time during most recent three months. They are 102 out of absolute 640 respondents. Absolute 200 respondents have involved versatile re-energize benefits two times in last three months. Total 240 respondents have no utilization of e-banking for re-energize their portable in most recent three months. There are 98 respondents who have utilized e-banking for re-energizing their versatile for multiple times during most recent three months. It is closed from the data that greater part of respondents are utilizing versatile financial administrations a couple of time during most recent three months.

2. TELEPHONE BILL PAYMENTS

The defendants are grouped as per their usage of e-baking for telephone bill payments in table 2.

Table 2 E- Banking for Telephone Bill Payments

	Frequency	Percentage
Not used	210	56.6
One Time only	164	13.5
Two Time	258	29.1
More Than Twice	8	0.8
	640	100

Greater part of respondents is not involving e-banking administrations for phone bill installments. They are 210 out of 640 respondents. It is found that 291 respondents have involved this help two times in most recent three months. All out 164 respondents have involved e-banking administrations for phone bill installments single times and 8 respondents have utilized multiple times during most recent three months. It is found that the e-banking administrations are not utilized for phone bill installments by greater part of respondents.

3.ELECTRICITY BILL PAYMENTS

The particulars about the payment of electricity bill payments done are presented in Table 3.

Table 3 E- Banking for Electricity Bill Payments

	Frequency	Percentage
Not used	217	28.8
One Time only	219	29.7
Two Time	122	40.2
More Than Twice	82	1.3
	640	100

It is seen that 122 respondents are involving e-banking administrations for covering their power bills is two times in most recent three months. All out 219 out of 640 have utilized one time, 82 respondents have utilized in excess of double cross during most recent three months. It was additionally seen that out of 640 respondents absolute 217 respondents are not utilizing this administrations. They might accept with certain unfaith to utilize e-banking administrations. The extent of respondents for utilizing two times of e-banking for power charge installment is higher. This gets that larger part free from ledger holders for the two kinds of bank are utilizing e-banking according to the advanced pattern works.

4. MONEY TRANSFER

Table 4 Money Transfer

	Frequency	Percentage
Not used	160	28.8
One Time only	119	29.7
Two Time	237	40.2
More Than Twice	124	1.3
	640	100

Table 4 shows that 160 respondents are not involving e-banking administrations for cash move. Out of 640 all out 119 respondents are unsung cash move administrations for one time, 237 are utilizing two times and 124 have

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utilized multiple times during last three months. According to the information we can say that aprox. two third respondents are involving these administrations for cash move.

5. RAIL TICKET BOOKING

The utilization of E-banking administration for booking railroad ticket is broke down with the perspectives on respondents in table 4.10.

Table 5E- Banking for Rail Ticket Booking

	Frequency	Percentage
Not used	110	28.8
One Time only	264	29.7
Two Time	134	40.2
More Than Twice	132	1.3
	640	100

Greater part of respondents is not involving e-banking administrations for booking their rail route tickets. They are 110 out of 640 respondents. The people who are utilizing e-banking one time for booking their rail route tickets are 264. The extent for two times and multiple times are 134 and 132 individually out of 640 respondents. The proportion of e-rail route ticket booking is given in need by the clients for two times during most recent three months.

6. AIR PERMIT BOOKING

The subtleties for booking of air tickets by means of e-banking is given in table 6.

Table 6Air Ticket Booking

	Frequency	Percentage
Not used	266	28.8
One Time only	123	29.7
Two Time	126	40.2
More Than Twice	125	1.3
	640	100

The respondents do not prefer to book their air tickets by utilizing e-banking administrations. Either this assistance can't be utilized by larger part of respondents or they might have different explanations behind not involving e-banking administration for air ticket booking. It is cleared from table 6 that 266 respondents are not utilizing this assistance. Absolute 123 out of 640 have utilized one time, 126 have utilized two times and just single respondents have utilized beyond two times during most recent three months.

7 INTERNET SHOPPING

The e-banking administrations are to be noticed for the respondents who have bought on the web. Table 4.7 introduced the insights concerning something very similar.

Table 7 Online Shopping

	Frequency	Percentage
Not used	91	28.8
One Time only	232	29.7
Two Time	165	40.2
More Than Twice	152	1.3
	640	100

It is seeing that larger part of respondents is showing their interest for online buy by utilizing e-banking administrations. On other hand 152 respondents have bought by utilizing e-banking administrations two times. Absolute 165 respondents have utilized e-banking for web based shopping and just 152 have utilized multiple times during most recent three months of length for internet shopping.

8. VENTURE OR INVESTMENTS

The e-banking administrations utilized for venture purposed are likewise asked. The figured frequencies are introduced in table 8. The speculation subtleties for most recent three months are ordered for no utilization, once, double cross and use of e-banking for multiple times during most recent three months. As indicated by table 8, all out 298 respondents are not utilizing venture online by means of e-banking.

Table 8 Venture or Investments

	Frequency	Percentage
Not used	298	46.56
One Time only	124	19.38
Two Time	110	17.19
More Than Twice	108	16.88
	640	100

Complete 124 respondents are utilizing one time during most recent three months. Complete 110 viewers have involved e-banking administrations two times for speculation reason during most recent multi month. The extent of financial backer is found lower for utilizing e-banking for venture for multiple times during most recent multi month.

9. NUMBER OF BANK ACCOUNTS

The respondents of public and confidential area banks have been seen about their other financial balances with other public area banks and confidential area banks. The assembled data are introduced in table 9. The respondents who have a records with public area banks have been assessed for their different records. Absolute 154 respondents having just a single record with public area bank.

Table 9 Total Number of Accounts of Respondents

	Public Sector		Private Sector	
	Frequency	%	Frequency	%
1	154	48.13	124	38.75
2	99	30.94	121	37.81
3	45	14.06	54	16.88
4	12	3.75	14	4.38
5	8	2.50	5	1.56
More than 5	2	0.63	2	0.63
Total	320	100.00	320	100.00

Other 99 respondents have two records with public area banks. All out 45 respondents have three records with public area. The respondents having account with public area bank and are function more four records other than one banks are registered 154 altogether. Those respondents who have five records alongside the record in open area bank is found one in corss table of absolute recurrence. At long last the respondents who are utilizing administrations of in excess of five banks are 2 altogether and have account with public area bank. Likewise, the confidential financial balance holders have been examined with their all out number of records. Out of absolute 320 respondents 124 concurred that they have just a single record. 121 out of 320 have concurred that they have two records with different banks, 54 of them are concurred that they have three records, all out 14 respondents are comparing with four records. Those respondents having five records are found 5 in table 4.14 and 2 of them concurred that they have in excess of five records with different banks. The respondents have been offered e-banking by different banks or not - to concentrate on this comment they have been seen with their viewpoint about access of e-banking or not are to be talked about in next segment.

10. ACCESS OF SERVICES

Table 10 Accessing of in Public and Private Sector Banks

	Public Sector		Private Sector	
	Frequency	Percent	Frequency	Percent
Accessing online	234	73%	269	84%

Not Accessing online	86	27%	51	16%
Total	320	100.0	320	100.0

Table 10 shows the subtleties for web access by the respondents for public and confidential area banks. It very well may be seen that 234 respondents of public area banks are getting to web and 86 out of 320 are not getting to internet providers. On other hand, there are 269 respondents dealing with private area banks are getting to internet providers and 51 are not getting to this administration. The extent for utilization of web banking in confidential area banks is higher than the public area banks.

11. APPROACH TO ACCESS

Table 11 Approach to Access

	Public Sector		Private Sector	
	Frequency	Percent	Frequency	Percent
Note used	4	1.25	6	1.88
Home	60	18.75	41	12.81
Office	98	30.63	102	31.88
Cafe	45	14.06	52	16.25
Mobile	112	35.00	119	37.19
Other	1	0.31	0	0.00
Total	320	100.00	320	100.00

The respondents are analyzed based on mode of access. Majority of users are accessing internet from home and by using mobile for both public and private sector banks. The proportion of cyber café and other mode is very lower compare to other resources.

12. SECURITY FOR ONLINE TRANSACTIONS

The respondents are presented as per their understanding about the use of internet access in last discussion. They have been also asked about their fiancial security while using e-banking through internet. The reviews are presented in table 12.

Table 12 Security for Online Transactions

	Frequency	Percent
Very Secured	230	35.93
Secured	165	25.78
Not Sure	52	8.12
Unsecured	193	30.15
Total	640	100.0

As indicated by table 12, out of 640 absolute respondents 165 are concurred that their monetary exchanges on web are gotten. Absolute 230 are concurred that it is quite gotten. The people who are don't know about their viewpoint about monetary security are 52 among complete respondents. There are 193 respondents concurred that they are not feeling gotten while utilizing web banking.

13. USAGE OF E – BANKING SERVICES LAST THREE MONTHS

During last three months how many times the users have used e-banking services with various mode is given in table 13.

Table 13 Uses of E-banking in Last Three Months

	Use of Debit Card		Use of Credit Card		Use of Mobile		Online Transaction		Use of Tele-banking	
	F	%	F	%	F	%	F	%	F	%
No Use	91	14.22	75	11.72	98	15.31	93	14.53	85	13.28

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One Time	142	22.19	189	29.53	224	35	206	32.19	265	41.41
Twice	209	32.66	152	23.75	210	32.8	229	35.78	234	36.56
More Than Two Times	198	30.94	224	35.00	108	16.88	112	17.50	56	8.75
Total	640	100.00	640	100.00	640	100.0	640	100.00	640	100.00

According to table 13, total 91 are not using debit card; 75 have not used credit cards, 98 have not used mobile banking, 93 have not used online transactions and 85 have not used tele- banking during last three months. Total 142 debit card users have used these services one time. Total 209 users have opted twice and 198 have used more than two times during last three months. Total 189 credit card users have determined the e banking for one time, 152 have used it twice and 224 have used more than two time during last three months. There are highest mobile users for using e-banking services, among them 224 have used one time during last three months. Total 210 has used twice and 108 have used more than two times during last three months. Total respondents are using online transactions, among them 206 have used one time, 229 have used twice and 112 have used more than two times during last three months. Total 640 respondents are using tele-banking services among them 265 have used one time and 234 has used twice, while only 56 have used more than twice during last three months.

14. PROBLEMS WHILE USING E-BANKING SERVICES

The respondents are analyzed about their mode of use of internet bases on demographic profiles and their perception about security of finance while using e-banking services. It is noticed that very few respondents out of total respondents are feeling that the e- banking services are unsecured. It is also observed that majority of respondent are not using e- banking services. The reasons are required to be study that why the public bank account holders are not using e-banking services. The respondents have been reviewed about they are facing for not using e-banking services.

Table 14 Problems to E-banking Services

Insufficient Information				Place of ATMs				Total ATMs				Deprived Network				Absence of Awareness in Customer			
Public Sector Banks		Private Sector Banks		Public Sector Banks		Private Sector Banks		Public Sector Banks		Private Sector Banks		Public Sector Banks		Private Sector Banks		Public Sector Banks		Private Sector Banks	
F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
44	13.75	41	12.81	39	12.19	38	11.88	26	8.13	24	7.50	44	13.75	45	14.06	41	12.81	36	11.25
45	14.06	38	11.88	49	15.31	36	11.25	28	8.75	26	8.13	45	14.06	45	14.06	42	13.13	35	10.94
21	6.56	19	5.94	32	10.00	45	14.06	36	11.25	28	8.75	21	6.56	20	6.25	31	9.69	39	12.19
24	7.50	22	6.88	36	11.25	21	6.56	37	11.56	29	9.06	24	7.50	26	8.13	36	11.25	31	9.69
25	7.81	38	11.88	21	6.56	23	7.19	34	10.63	32	10.00	25	7.81	25	7.81	32	10.00	32	10.00
20	6.25	25	7.81	28	8.75	18	5.63	35	10.94	36	11.25	20	6.25	24	7.50	29	9.06	35	10.94
21	6.56	19	5.94	16	5.00	16	5.00	32	10.00	35	10.94	21	6.56	29	9.06	21	6.56	37	11.56
32	10.00	36	11.25	34	10.63	36	11.25	29	9.06	38	11.88	32	10.00	31	9.69	26	8.13	25	7.81
38	11.88	36	11.25	31	9.69	35	10.94	38	11.88	40	12.50	38	11.88	34	10.63	38	11.88	38	11.88
50	15.63	46	14.38	34	10.63	52	16.25	25	7.81	32	10.00	50	15.63	41	12.81	24	7.50	12	3.75
320	100	320	100	320	100	320	100	320	100	320	100	320	100	320	100	320	100	320	100

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Pass word Elapsed				Card Erroneous				Misuse and Scams				Absence of Sureness				Technical Issues			
Public Sector Banks		Private Sector Banks		Public Sector Banks		Private Sector Banks		Public Sector Banks		Private Sector Banks		Public Sector Banks		Private Sector Banks		Public Sector Banks		Private Sector Banks	
F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
47	14.69	42	13.13	39	12.19	41	12.81	32	10.00	44	13.75	29	9.06	48	15.00	24	7.50	30	9.38
49	15.31	47	14.69	41	12.81	32	10.00	39	12.19	32	10.00	36	11.25	41	12.81	26	8.13	37	11.56
23	7.19	19	5.94	43	13.44	34	10.63	37	11.56	26	8.13	35	10.94	42	13.13	35	10.94	32	10.00
24	7.50	26	8.13	45	14.06	30	9.38	33	10.31	38	11.88	34	10.63	26	8.13	39	12.19	22	6.88
26	8.13	23	7.19	44	13.75	35	10.94	36	11.25	29	9.06	34	10.63	35	10.94	38	11.88	36	11.25
41	12.81	22	6.88	21	6.56	42	13.13	32	10.00	24	7.50	25	7.81	22	6.88	34	10.63	34	10.63
28	8.75	19	5.94	26	8.13	24	7.50	22	6.88	22	6.88	29	9.06	27	8.44	36	11.25	39	12.19
26	8.13	34	10.63	24	7.50	25	7.81	40	12.50	42	13.13	32	10.00	25	7.81	34	10.63	35	10.94
24	7.50	45	14.06	25	7.81	28	8.75	25	7.81	34	10.63	24	7.50	16	5.00	26	8.13	26	8.13
32	10.00	43	13.44	12	3.75	29	9.06	24	7.50	29	9.06	42	13.13	38	11.88	28	8.75	29	9.06
320	100	320	100	320	100	320	100	320	100	320	100	320	100	320	100	320	100	320	100

Absolute ten kinds of issues are to be looked for study. The respondents are given their positions in like manner. The classification of issues is given as - insufficient information, area of ATM, absolute number of ATM, unfortunate organization of web, disinterest of clients, pass word neglected, loss of cards, abuse of cards and misrepresentation, absence of certainty and specialized obstacles of ATM and savvy cards. An investigation is appraised for initial three positions for every one of the issues connected with utilization of e-banking administrations. Arrangement of these issues can help the financial framework for improving administrations of e-banking. Table 14 shows the point by point frequencies evaluated by the respondents alongside the rates of frequencies. The specialist has created ten sorts of issues to finish up the outcomes. It is additionally important to short the main issues, which is looked by the respondents on normal bases. In this manner, a utilization of variable examination is utilized to concentrate on the main elements or issues to finish up the outcomes.

Concurring the table 14 the issues are positioned from 1 to 10. The grouping for every issue is dissected for initial three evaluated issues. The main issue asked to public and confidential area bank respondents is about their insight to utilize such innovation. They have been asked about their concern with respect to Insufficient Information on use of innovation.

The first problem examined for both the types of bank is inquired for inadequate knowledge in customers regarding operating internet services. For private sector banks it is observed that 44 (13.75%) of respondents are agreed and given priority that they are facing problems with inadequate knowledge of using internet services. Whereas for private sector banks the proportion for the same is lower. The second rank is given by the users highest for the public sector bank operators. It is again lower than the private sector banks. The proportion for the third and fourth rank is also comparatively higher for private sector banks. The proportion of percentages for public sector represents that the operators are facing problems due to inadequate knowledge.

The second problem discussed with the customers regarding the location of an ATMs provided to them. It is observed that compare to public sector banks, private sector banks are professional towards the customers. They do not provide enough number of ATMs to the customers. The rank analysis shows that the public sector banks are promptly providing services to the customers at different locations. The locations are very close to the users.

When the users are inquired about the total number of ATMs provided to them by their banks. Their responses are presented in table. It is observed that majority of customers of public sector banks are agreed that they have been offered plenty number of ATMs near to their locations. The public sector account holder is easily avail ATM services as they have been facilitating with higher order of number of ATMs.

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While discussion has been made regarding connectivity of internet as the customers are using ATM or online services of the banks. The respondents are agreed that they have been provided services for internet banking. The response from the public sector banks is quite lower than the private sector banks. The private sector banks are working with customer's orientation and point of view. Thus, service wise they are managing good. The customers are given rank higher in order for proper internet connection. It is observed from the table that the private sector is failed to manage proper internet connection to their online transactions. The rank is almost having equal frequencies for both the types of banks. The micro level analysis can be presenting that the public sector bank customers are having lower issues of improper internet connection.

The public sector is dealing as per the guide line and rules and regulations. Thus, they are not customer friendly. This creates problems to the customer while doing online transactions. It is observed that the customers associated with public sector banks are facing problems for system of online transactions. They are having lack of interest and awareness for using online banking.

The banks are always providing safe and secured services to their customers. While doing online transactions the customers are initially asked for password for completion of their transactions. It is observed that the public sector banks customers are having problems with pass words. They are ranked higher that they forget password when they are using online transactions. The public sector banks have set certain rules for customer when they create password for their transactions. The private sector banks are allowing their customers to set passwords as per their convenient. Thus, the responses given for public sector banks ranked higher for problem of password.

The customers are facilitating with smart cards for doing their online transactions. It is observed that the customers of public sector banks are lazier in taking care of their cards. They rank higher, while they are inquired about the misplaced issued of cards. The private sector bank customers are also facing problem but the frequencies for public sector bank customers is higher.

As the world is directly connected with web. Thus, the chances for fraud and misuse of services may occurs. In inquiry of the same the responses for public and private sector bank customers are agreed that they are afraid with misuse of cards and frauds while they are interacting online. The public sector banks are more accurately provide their services. Thus, the customers have ranked lower compare to the private sector bank responses. The private sector banks are trying to make easy mode of transactions. Thus, they are allowing the customers with easy way to use their online services. Sometimes, this goodness harms the customers. The private sector bank customers are having higher problems due to misuse of cards and frauds.

The customers of both the types of banks are inquired about their confidence towards online transactions. It is observed that the private sector customers are not facing more problems in compare to public sector respondents. The rank orders are higher for private sector banks regarding lack of confidence.

Lastly the customers are also inquired about their technical hurdles for using ATM and smart cards. The public sector bank respondents are not facing much problems. The rank for private sector banks are much higher in order in compare to public sector bank respondents.

It is cleared that the clients have given rank most elevated to Insufficient Information, the following is the issue of unfortunate organization, third need is given to specialized obstacles of ATM and savvy cards and the fourth need is given to add up to number of ATMs and area of ATMs the 6th need is given to disinterest from client. Other four issues have lower rating frequencies. To close the aftereffects of issues looking by the clients, every one of the issues is to be tried by utilizing factor investigation. The all said ten issues are considered as variables influencing the use of e-banking administrations.

CONCLUSION

The study reveals that e-banking services in Gujarat have gained strong acceptance among customers, especially in urban areas. Most respondents actively use digital platforms for frequent transactions such as mobile recharge, electricity bill payments, money transfers, and online shopping. The findings also show a shift in customer preference from traditional banking channels to mobile-based services due to convenience and ease of access. However, differences still exist between users of public and private sector banks, where customers of private banks demonstrate higher engagement with online services. Despite the growth in usage, a notable portion of users still perceive e-banking to be insecure, indicating the need for stronger awareness programs, better digital literacy, and enhanced cybersecurity measures. Overall, e-banking in Gujarat is progressing steadily, and continued improvements in technology, security, and service delivery can significantly boost customer confidence and support the nation's digital financial inclusion goals.

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