

## **“The Impact of COVID-19 Pandemic on Online banking usage”**

**Key Words:** COVID - 19, Banking, Bank Users, Online Banking, Banking Services

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### **Abstract**

The COVID-19 pandemic has impacted the digital banking market positively. To support and meet the financial needs of the customers, banks have developed business models and now use various technologies such as AI and human resource to impact marketing, innovation and the digital delivery of products and services. This factor is significantly driving the adoption of digital banking and will impel the market growth during the COVID-19 outbreak. Moreover, increase in acceptance of online banking by consumers and use of online and digital banking substitutes has been increased during this outbreak.

This research paper is descriptive research study, in which e- survey has been conducted for the people who fall into the age group of 25 years to 60 years in Surat City. For survey, Questionnaire has been designed to collect the responses of the online banking services users during COVID – 19 Pandemic from Surat City, and a sample has been selected on the basis of non-probability convenience sampling and snow-ball sampling method. Questionnaire has been send through email and whatsapp and 305 responses have been collected for the study.

After collecting and analyzing data, the researcher has found that the respondents were agreed with the fact that during this pandemic the use of internet/online banking services has increased the quality and efficiency of their banking services. During this pandemic, their trust level was also high for doing online banking transactions. Respondents were using online banking because of having the fear of contacting the coronavirus through paper currency. 47.5% of the respondents said that during the covid-19 pandemic the usage of online banking services has been increased by them.

### **1. Introduction**

The banking industry’s collective response to the pandemic so far has been remarkable. It had been no easy achievement to travel fully virtual and execute an untested operating model during a matter of weeks. Despite some minor problem, many banking operations were executed smoothly. During this pandemic Customers were served with good efficiency, employees were productive, and regulators were working with full of their energy. Banks effectively employ technology and demonstrated unprecedented agility and resilience.

For the banking system, the economic consequences of the pandemic aren't on an equivalent scale as those during the worldwide Financial Crisis of 2008–10 (GFC), but they're still remarkable. Additionally, to the financial fallout, COVID-19 is reshaping the worldwide banking system on variety of dimensions, initiate during a new competitive landscape, stifling growth in some traditional product areas, prompting a

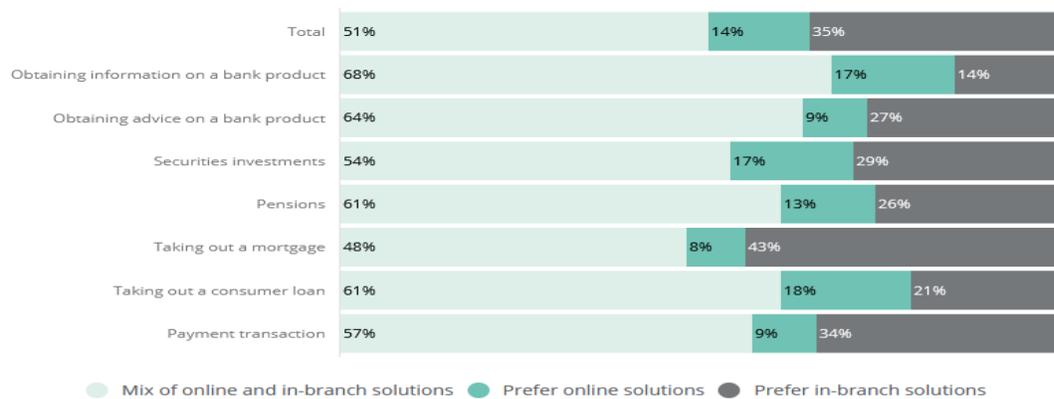
replacement wave of innovation, to perform the role of branches and to accelerate the efficiency with digitization in most of the sphere of the banking sector.

Internet Banking, in both the ways as a means of communication of banking services and as well planned tool for the business expansion, has received acceptance globally and it is fast developing in region of India with more and more banks into the fray. India is often said to get on the era of a vast banking revolution with banking having already been unveiled.

Some of the banks allow customers to interact with various branches and transact electronically with them. Some services include request for opening of accounts, request for cheque books, order of cheques book, downloading and printing statements of accounts, transfer of funds between accounts within same bank, inquiring on status of requests, information for opening of Letters of Credit and Bank Guarantees etc. The mentioned services are being facilitated by many banks like ICICI Bank Ltd., HDFC Bank Ltd., Citibank, Global Trust Bank Ltd., UTI Bank Ltd., Federal Bank Lt., Bank of Madura Ltd., etc. Recent players in Internet banking are Allahabad Bank (for its corporate customers through its ‘All net’ service) and Bank of Punjab Ltd. depository financial institution of India has announced that it'll be providing such services soon. Some of banks like ICICI Bank Ltd., have gone a one step ahead within the transactional stage of Internet banking by allowing transfer of funds by an account holder to the other account holder of the bank.

In Indian Banking industry there are 12 public sector banks, 22 private sector banks, 46 foreign banks, 56 regional rural banks, 1485 urban cooperative banks and 96,000 rural cooperative banks additionally to cooperative credit institutions. Till the month of August 2020, the entire number of ATMs in India increased to 209,110 and is further expected to extend to 407,000 by 2021. Asset of public sector banks are summarized at Rs. 107.83 lakh crore (US\$ 1.52 trillion) in FY20. During FY16-FY20, bank credit was grown at a CAGR of 57%. Till FY20, total credit extended surged to US\$ 1,698.97 billion. During FY16-FY20, deposits were grown at a CAGR of 13.93% and reached US\$ 1.93 trillion by the end of FY20. Credit to non-food industries raised at Rs. 102.80 lakh crore (US\$ 1.38 trillion) as of October 9, 2020.

### Use of services before and during the COVID-19 crisis<sup>1</sup>



<sup>1</sup> <https://www2.deloitte.com/ch/en/pages/financial-services/articles/corona-krise-digitalisierungsschub-im-retailbanng.html>

COVID-19 pandemics has changed the way and manner people shop, work, socialize, banking and make payments. As the pandemic continues, the new trend of work-from-home emerged due to the closing-down of most banking halls and branches altogether, many customers were left with no options other than to change their pattern of banking and payment. As a necessity, some customers were forced to embrace digital options as a means of payments, while others moved to digital options for the first time. Hence the influence of COVID-19 pandemics on customer's decision to use online banking and e-payment services is very high.

## 2. Literature Review

**Lelissa (2020):** The study highlights that how COVID-19 has impacted on private sector banking of Ethiopia. Taking remedial action and looking forward to the growth to boost the e-commerce services, digitalization, e-banking programs, etc. which will help for the speedy recovery. An intermediation approach of the input-output method has been used to select the variables over time and to examine their sensitivities to the stocks. It concludes that Ethiopian banks are censure for the use and adoption of technology like debit cards, real-time gross settlement, ATMs, core banking system mobile, internet banking, etc.

**Bishwas & Ashrafy (2020):** In this study, the author has stated that how this pandemic has affected very badly to the economy and many other industries and particularly the banking industry as Banks are considered mainstream for the economic development of the country. The objective was as the internet is being a most important thing in the world and every important aspect is done with the help of internet and also many countries are building a cashless society. The discussion was made that as the world is facing the pandemic and people have to maintain the social distance so they were demanding for the digital banking services which include internet banking mobile banking etc. and is increasing during this pandemic.

**Haq & Awan (2020):** The study aimed to explore the service quality of e-banking and its impact on e-banking loyalty. The survey was undertaken with the help of the structured questionnaire from that it was found that because of COVID-19 more and more people started using the online banking services just because of reliability and website design proved that increase the loyalty and people will give more importance only when they feel it secure and private. Many theories were also used like CMR theory which helps to study the relationship between e-banking service quality and e-banking loyalty.

**SUDARSONO & NUGROHOWATI et al. (2020):** This study aims to look at the impact of perceived utility (PU), perceived ease of use (PEU), trust (TR), subjective norm (SN), and attitude (AT) on customer's Intention to adopt Internet Banking at Muslim banks and traditional banks before and through the COVID-19 pandemic in country. The analysis model relies on the Theory of Planned Behavior (TPB) and therefore the Technology Acceptance Model (TAM). Data was analyzed with the help of partial least square (PLS) regression with the Structural Equation Model (SEM) method. The results confirm that before COVID-19 showed that AT and SN influence IAIB in Muslim banks.

**Thakor (2020):** The author says that the COVID-19 has impacted on the various banks all over the world which became very challenging for the banks and bank employees to do their task as the social distance and sanitizing was mandatory. This creates importance for the digitalization in banking which will

eliminate the paper and employee intervention within banks. This situation will not only gear up the adoption of technology but will renew the following features in an area of banking are taking advantage of new technologies, Channels of Digitization, Security, Privacy and Customer Trust, Policy and Compliance i.e., the focus should be made on digital payment infrastructure especially in rural areas.

**Moşteanu & Faccia (2020):** The study was undertaken to estimate the level of digitalization in the banking sector and to achieve the objective the author has work out in detail regarding changes in demand and supply of banking services, financial digitalization and digitalization changes in the banking sector on a global level, and the benefits of digitalization for individuals and businesses at the same level. Along with it they were making aware and educating the population in the use of new digital technologies.

**Perwej (2020):** The study highlights the pandemic impact on Indian Banking System where the Rating Agency Moody's has revised the Indian Banking system from stable to negative and there was due to disruption in economic activity caused by COVID-19. It was also mentioned that the quality of assets will decline across corporate, small, and medium enterprises and retail segments, which will cause pressure on profitability and capital for lenders.

**Lachhwani & Kanwar (2020):** This research paper was written in July 2020. The main objective of this study is to analyze the adoption of digital banking by consumer during COVID 19 pandemic. And the second objective is to understand the preference of customers with respect to digital service at Ahmedabad. The test applied in this research paper is chi-square and correlation. The total number of respondents was 101 and out of which 52 was female and 49 were male. It was found that 73% of the respondents started adopting digital banking during pandemic period.

**Sudha & Sornaganesh et al. (2020):** This research paper was written in august 2020. The objectives of this paper are to seek out the effect of Covid-19 on Digital payments, to compare the respondents buying behaviour before lockdown and through the lockdown, to analyze the mode of payment done by the respondents before lockdown and through lockdown, to seek out the web payment site employed by the respondents and to analyze the issues faced by them while during online payment. Data from 220 respondents have been collected and they applied t-test, ANOVA and chi-square test to draw a right conclusion. They found that people are positively responding to the digital banking.

### 3. Gap of the Study

The Researcher has gone through the various literatures to come up with a specific title of the Study and to develop the variables of the study to frame the questionnaire. Research Gap shows that many studies have been undertaken during COVID 19 for Online Banking Services in many places but none of the study has been under taken to find out the impact of COVID 19 pandemic on usage of online banking for the bankers and people of Surat City. This kind of study will help banks to find out the impact of COVID 19 on online services usage which guide them for further expansion of their business.

### 4. Objectives of the study

- To know the preferences of consumer towards online banking
- To find out the factors affecting usage of online banking during Covid-19.

## 5. Hypothesis

H1: There significance difference in response across occupation category.

H1: There is significance difference in sum of rank between two independent groups, Male and Female.

H1: There is significance relationship between age group and current level of trust in online/internet banking services during the COVID19 pandemic.

## 6. Research Methodology

- Descriptive **Research design** is applied for this research paper to come at the conclusion.
- Non-Probability Convenient **Sampling Method** Snow-Ball Sampling Method have been used to select sample from Surat City, to collect data from the selected sample and to generalize the result for the population of Surat City.
- Contact number of respondents has been collected from various banks and through indirect contacts.
- Structured questionnaire is a **data collection tool** to survey the respondents from Surat City and collect the data. Survey period is October, 2020 – December, 2020.
- 305 responses have been collected as a **sample size** through Google a docs, which have been sent through whatsapp and email.
- Data has been formatted through MS-Excel and SPSS-20. Descriptive Statistics, Kruskal-Wallis Test, Chi Square Test and M1ann Whitney U Test was applied have been applied for data analysis and findings.
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## 7. Summary of Primary Data Collection

Demographic Profile of Respondents		Frequency	Total
Gender	Female	158	305
	Male	147	
Age	18-24	174	
	25-35	70	
	36-44	33	
	45 & above	28	
Annual Income	Below 2,50,000	104	
	2,50,001-5,00,000	101	

	5,00,001-10,00,000	71
	Above 10,00,000	29
<b>Education</b>	HSC or Below	49
	Graduate	163
	Post Graduate	82
	Diploma	11
<b>Occupation</b>	Private Sector	98
	Government Sector	21
	Retired	5
	Student	127
	Does not work	11
	Businessman	25
	Housewife	18

### Use of Internet/Online Banking through:

	Frequency	Percent
<b>Mobile</b>	186	61.0
<b>Desktop</b>	43	14.1
<b>Laptop</b>	42	13.8
<b>Tablet</b>	34	11.1
<b>Total</b>	<b>305</b>	<b>100.0</b>

**Reason behind using internet/online banking transaction during covid-19:**

	Frequency	Percent
No access of cash through ATM	153	50.2
Fear of contacting the coronavirus through paper currency	171	56.1
Convenience of cashless transactions	185	60.7
Availability of Digital Resource	126	41.3
<b>Total</b>	<b>635</b>	<b>208.3</b>

**Types of Services of online banking used most during pandemic (MCQ):**

	Frequency	Percent
Pay the bills	254	83.3
Pay rent and so on	159	52.1
Check the account	193	63.3
Transfer money between accounts	157	51.5
Requesting for credit cards	44	14.4
Stock transaction	47	15.4
For booking railway, airway reservation	139	45.6
Transaction history	88	28.9
Obtaining loans online	35	11.5
For online shopping	217	71.1
Payment of instalments due on loans held	63	20.7
Other	29	9.5
<b>Total</b>	<b>1425</b>	<b>467.3</b>

**8. Use of Statistical Tests**

**Kruskal Wallis Test**

H0: There is no significance difference in response across occupation category.

H1: There is significance difference in response across occupation category.

Statement No	Null Hypothesis	Sig.	Decision
1.	The distribution of online banking transaction procedures are simple and straightforward. It is the same across categories of Occupation.	0.092	Failed to reject the Null Hypothesis
2.	The distribution of online transactions are complex. It is the same across categories of Occupation.	0.518	Failed to reject the Null Hypothesis
3.	The distribution of online banking is easy service. It is the same across categories of Occupation.	0.575	Failed to reject the Null Hypothesis
4.	The distribution of Banks gives enough information about the internet/online banking service. It is the same across categories of Occupation.	0.197	Failed to reject the Null Hypothesis
5.	The distribution of Internet/online banking is more effective than branch about time saving. It is the same across categories of Occupation.	0.146	Failed to reject the Null Hypothesis
6.	The distribution of It is convenient because it eliminates the risk of carrying cash. It is the same across categories of Occupation.	0.101	Failed to reject the Null Hypothesis
7.	The distribution of If I have any problem about internet/online banking service, banks provide support. It is the same across categories of Occupation.	0.101	Failed to reject the Null Hypothesis
8.	The distribution of It is 24*7 available. It is the same across categories of Occupation.	0.109	Failed to reject the Null Hypothesis
9.	The distribution of Transaction cost is cheap. It is the same across categories of Occupation.	0.246	Failed to reject the Null Hypothesis
10.	The distribution of It ensures security and safety of transaction. It is the same across categories of Occupation.	0.721	Failed to reject the Null Hypothesis
11.	The distribution of Easy accessibility. It is the same across categories of Occupation.	0.729	Failed to reject the Null Hypothesis

### Mann Whitney U Test

H0: There is no significance difference in sum of rank between two independent groups, Male and Female.

H1: There is significance difference in sum of rank between two independent groups, Male and Female.

Statement No.	Null Hypothesis	Sig.	Decision
1.	The distribution of online banking service is less costly than other banking service. (Branch, ATM, Mobile banking) is the same across categories of Gender.	0.191	Failed to reject Null Hypothesis
2.	The distribution of online banking transaction procedures are simple and straightforward. It is the same across categories of Gender.	0.489	Failed to reject Null Hypothesis
3.	The distribution of online transactions are complex. It is the same across categories of Gender.	0.413	Failed to reject Null Hypothesis
4.	The distribution of online banking is easy service. It is the same across categories of Gender.	0.508	Failed to reject Null Hypothesis
5.	The distribution of I am satisfied with internet/online banking because I do not have to go bank. It is the same across categories of Gender.	0.742	Failed to reject Null Hypothesis
6.	The distribution of Banks gives enough information about the internet/online banking service. It is the same across categories of Gender.	0.267	Failed to reject Null Hypothesis
7.	The distribution of Internet/online banking is more effective than branch about time saving. It is the same across categories of Gender.	0.387	Failed to reject Null Hypothesis
8.	The distribution of It is convenient because it eliminates the risk of carrying cash. It is the same across categories of Gender.	0.131	Failed to reject Null Hypothesis
9.	The distribution of If I have any problem about internet/online banking service, banks provide support. It is the same across categories of Gender.	0.232	Failed to reject Null Hypothesis
10.	The distribution of It is 24*7 available. It is the same across categories of Gender.	0.781	Failed to reject Null Hypothesis

11.	The distribution of Transaction cost is cheap. It is the same across categories of Gender.	0.127	Failed to reject Null Hypothesis
12.	The distribution of It ensures security and safety of transaction. It is the same across categories Gender.	0.565	Failed to reject Null Hypothesis
13.	The distribution of Easy accessibility. It is the same across categories of Gender.	0.283	Failed to reject Null Hypothesis

### Chi Square Test

H0: There is no significance relationship between age group and current level of trust in online/internet banking services during the COVID19 pandemic.

H1: There is significance relationship between age group and current level of trust in online/internet banking services during the COVID19 pandemic.

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	38.897 <sup>a</sup>	9	.000
Likelihood Ratio	35.258	9	.000
Linear-by-Linear Association	26.361	1	.000
N of Valid Cases	305		

Symmetric Measures			
		Value	Approximate Significance
Nominal by Nominal	Phi	.357	.000
	Cramer's V	.206	.000
N of Valid Cases		305	

## 9. Interpretations and Findings from data analysis:

- 61% of the respondents use online banking via mobile and rest of them use it through desktop and the tablet. 47% of the respondents were agreed that during this pandemic the use of internet/online banking services has increases the quality and efficiency of their banking services and very few of the respondents disagree with this statement.
- 44.9% of the respondents were using ATMs only once a month whereas few of the respondents were never using ATMs during this pandemic and very few of the respondents were using ATMs more than once a week.
- 69.2% of the respondents were having a high level of trust in online/internet banking services during this Covid-19 pandemic and only few of respondents were having a low level of trust in online/internet banking services.
- 60.7% of the respondents were using online/internet banking because they felt the convenience of cashless transactions and some was having the fear of contacting the coronavirus through paper currency.
- 78% of the respondents said yes that online banking transaction was one of the factors that gave smooth functioning to day-to-day life during covid-19, some of the respondents said maybe to this statement and only few of the respondents said no to this statement.
- 47.5% of the respondents said that during the covid-19 pandemic the usage of online banking services has been increased by them and only few of the respondents said that it has not changed.
- 88.5% of the respondents were using online banking services for the payment of bills, for online shopping, for checking the account, transferring the money between accounts, and many other services while only a few respondents were obtaining a loan online.
- 68.9% of the respondents preferred banking cards i.e., debit or credit card, some of them preferred mobile payment, and other modes of payment while doing the online transaction and only few of the respondents preferred bank transfers while doing online transaction.
- It has been found that major factors responsible for the e-banking transaction are cheaper costs, easy online banking services, no need of travelling, Banks give enough information about the internet/online banking service, Internet/online banking is more effective than branch about time saving, convenient because of elimination of risk of carrying cash, 24\*7 services availability, ensures security and safety of transaction, and Easy accessibility.
- By applying Kruskal Wallis Test it can be found that there is no significance difference in response across category of occupation when it comes to online banking service and there is no significance difference in other response across occupation category during the COVID-19 pandemic.
- By applying Mann Whitney U Test it has been found that there is no difference in response across gender category for factors considered while selecting and using the online banking services during the COVID-19 pandemic.
- By applying Chi Square Test it is found that age of the online banking services users is affecting to the usage of the online banking services during COVID 19 pandemic period. It shows that old age people resist to use the online banking services because of lack of technological knowledge and lack of trust on online banking services.

## 10. Conclusion

It can be concluded that people used to prefer online banking during this COVID – 19 pandemic period and they prefer to use online banking transactions via mobile phones. The respondents were agreed with the fact that during this pandemic the use of internet/online banking services has increased and it has improved the quality and efficiency of their banking services. During this pandemic, their trust level was also increases for doing online banking transactions. Fear of contacting the coronavirus through paper currency, lower transaction cost, easy to use and good support from banks, and age of the online banking services users are the major factors responsible for increased usage of e-banking services during this COVID-19 pandemic. It has also been concluded that there is no difference in various types of occupation and gender on the usage of online banking services.

## 11. Recommendations

- Banking customers should use online banking services with proper precautions to avoid future dispute with e-banking service provider.
- Banks must improve the features of e-banking service to strengthen the trust of e-banking users and to build a good customer base.

## 12. Implication of the Study

- When Banks frame the future policy for business expansion, they should consider lower transaction cost, easy to use, good support from banks and age of the online banking services users are important factors.
- Types of occupations and gender are not considerable factors while offering any new or updated online banking service.

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