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## A STUDY OF CUSTOMERS INCLINATION TOWARDS E-BANKING SERVICES POST PANDEMIC

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### Abstract

The outbreak of the Covid-19 pandemic is a severe blow to the Indian economy. Almost 162 countries are present closure and businesses around the world are operating out of fear of an imminent collapse of global finance markets. This situation, accompanied by slow economic growth in the previous year and in the present, especially in a developing country like India is experiencing extremely volatile economic conditions. The impacts of the pandemic will increase unemployment, interest rates and fiscal deficit. The current state of the Indian economy is like adding gasoline the fire of the new coronavirus that is causing shocks in the Indian economy. The worst impact of the pandemic is increasing day by day, it is determined that the future Indian economy will have a big impact in the future days, and the Indian people prepare to face the future consequences of the post-pandemic shock.

**Keywords:** E Banking, Covid-19, Finance, Digital Trends.

### Introduction

The World Health Organization (WHO) has declared coronavirus 2019 (COVID-19) as an epidemic. A concerted effort is needed to stem the tide of viral transmission. The epidemic is described as "It occurs in a large area and affects something different a high percentage of people." The last reported global outbreak was the H1N1 flu epidemic in 2009. On December 31, 2019, a group of pneumonia cases of unknown cause in Wuhan City, Hubei Province in China, reports to World Health Organization. In January 2020, a new the virus, later renamed the new coronavirus 2019, was obtained. In cases and genetic analysis showed that this was the cause of the outbreak. This new coronavirus is called Coronavirus Disease 2019 (COVID-19) by WHO in February 2020. The virus is known as SARS-CoV-2 and the associated disease is COVID-19. Governments around the world are working hard to establish common ground very serious side effects. The healthcare business coordinates the flow of data and issues guidelines and guidelines for better mitigation of the impact of the threat. At the same time, scientists around the world work tirelessly with information about transmission processes, the clinical spectrum of the disease, new methods of diagnosis and prevention and treatment it develops rapidly. A lot of uncertainty remains about the combination of viruses hosted by epidemic, with specific reference to when it will reach the top of it. Currently, treatment programs intended to treat infections are only supported and prevention aimed at reducing public transmission is our greatest weapon. Anti-aggression measures in China have led to further reduction of cases. In Italy, the northern regions are located at the beginning and therefore, throughout the peninsula, politically as well health authorities are making strenuous efforts to address the shocking difficulties in the health system.

### Trends for Mobile Banking in Post COVID Era

Mobile wallets, on demand banking apps and the new trend of digital assistants like SIRI, ALEXA are at the forefront of mobile banking wave. Consumers who act as prime movers of innovation are increasingly demanding and want self-service, personalization, and immediate assistance.

- **Voice payments:** Voice commands are making waves with global consumers and by 2020 nearly one-third of browsing searches will be screen less. Consumers are highly conscious of security concerns, banks have already introduced voice recognition as one method for two-way authentication. Fin tech is providing access to private banking through applications like Alexa and Siri.
- **Detecting frauds using Big data:** As banks and financial institutions grow their revenue and expand services they run into heightened risk. The expected loss incurred on credit, debit, pre-paid cards surpass over \$12 billion. Another significant trend in mobile banking can help fin-tech businesses safeguard their resources and protect their customers' identity. The use of big data engines enables banks and financial institutions to improve risk assessment processes and jump ahead of the competition by providing streamlined customer experience while reducing the impact of fraud. With the help of big data, banks and financial institutions can extract and aggregate vast pools of customer data from a variety of sources, such as financial statements, mobile banking history, or even social media. This capability makes it possible for them to investigate every customer's historical behaviour, identify common patterns, and develop a holistic view of each account. Based on that analysis, predictive models of fraud detection can be developed, which will raise the red flag whenever some irregularities are detected.
- **Use of machine learning and chat bots to enhance customer service:** The ability to offer highly personalized real-time experience is becoming one of the critical differentiators for financial providers. The pressure to provide service to customers at a required time is high, despite this a staggering of 94% banks will fail to reach customers expectations. One of the best way to enhance user experience and loyalty is the usage of machine learning and chatbots. These chat bots use machine learning, predictive analytics, and cognitive communication to help consumers conduct every piece of financial transactions, from making



payments and saving money to paying down debt. It's anticipated that a smart bot can make much better predictions and decisions than a bank clerk could, so look out for increased, deeper insights into consumer behaviour thanks to smart bots.

- **The use of card less ATM withdrawals:** Mobile banking trend is not entirely new, the increasing adoption of this solution by banks attests to its swelling popularity. First, credit and debit cards were pushed out by mobile wallets for online and in-store purchases; now, it's their turn to step down at ATMs. Depending on a bank or financial provider (you may use Google Pay or Apple Pay, for example), two ways are available to withdraw money: via an app-generated code or near-field communication (NFC). The first method involves validating transactions with a QR code displayed in your banking app. This mobile banking technology appeals to consumers with its speed and convenience. However, those two advantages aside, card less withdrawals can also help reduce cloned cards fraud, as even if an ATM has been tampered with, all your assets are safe with encrypted transactions.
- **Debt pay-offs will go up:** The next mobile banking trend offers a quick and easy way for consumers to get back on track with their finances. A range of mobile savings apps and repayment tools are available that help loan holders get hold of their debt fast. Round-up apps automatically round up a user's purchases to the nearest dollar and deposit the difference to their saving's account or toward paying off debt. Other debt reduction solutions like Debt Payoff Assistant or Un debt, it helps users better manage debt by providing detailed spending breakdowns, tracking debt and interests, and suggesting the optimal, customized payoff strategies.
- **Open banking through mobile services:** Open Banking is a new standard for financial institutions that enables banks to share user data with third-party providers through the use of open application programming interfaces. By leveraging this concept, banks and financial institutions can build a network of financial services accessible from a single integrated point of control chosen by the consumer. Benefits include a more transparent view of one's finances, quick and direct payments, faster and more convenient credit reporting, and enhanced user experience.

## Review of Literature

[ **IBRAHIM EI 2018** ] The purpose of this study was to examine the relationship between the magnitude of E-Banking service quality and customer satisfaction to determine which size could have a significant impact on customer satisfaction. The data was collected using a screening tool, which was distributed to bank customers in the Lebanese banking sector. Data were analyzed statistically using the systematic rating model by SPSS and Amos (20). The findings show that reliability, efficiency, and ease of use for feedback and communication; and security and privacy all have a significant impact on customer satisfaction, honestly a measure of great impact. E-Banking has become one of the most important banking services that can, if used properly, increase customer satisfaction, and give banks a competitive advantage. Knowing the relative importance of maximum service quality can help the banking industry focus on what satisfies customers the most.

[ **PRIYA 2017** ] Advances in technology have opened up new avenues for bringing banking institutions to customer, such as ATMs and Internet Banking. So, banks have come a long way from their traditional banking methods. This research paper sheds light on E-Banking's response services by Indian customers. It has been more than thirty years since E-Banking The idea came up, it is very important to study the current state of the Internet banking in the context of Indians. The primary purpose of this study is to determine the percentage of customers using online banking in Pune and its suburbs. It also aims to suggest certain approaches by making online banking successful in a developing country like India. This paper shows to study the various E-Banking institutions offered by the private sector, public sector and affiliated banks in Pune and its suburbs and how Indian customers respond in relation to the same

[ **Sriram Devulapalli 2019** ] Following the result of demon possession, digital money became a hotcake among Indian citizens. Digital cash and online transactions in the current market environment have a positive effect on e-banking and digital of the bank. e-banking is made up mainly of electronic money transfers and the use of online banking services. Electronic banking was initially offered by international banks as the flow of digital currency was not prominent in the Indian market until the arrival of demons. E-banking plays a major role in current bank operations. Electronic banking is aimed at security and safety, as opposed to physical of the bank. e-banking ensures better bank performance compared to traditional banking. Still, it has our limitations and challenges when it comes to security, instead. Chat across the paper focuses on the challenges that Indian banks face in terms of e-banking, an opportunity for expansion awareness and measures adopted for the safety and security of e-banking. This paper goes on to try to discuss the best practices in the world.

[ **ShubharaJindal 2016** ] Information transformation has led to the evolution of the Internet, leading to E-Commerce continuing the evolution of E-Banking. Banking was previously done in a very traditional way, there was no such thing as new. E-Banking or Electronic Banking is major innovations in the banking sector. Banking is now no longer permitted at the branches where one has to speak to the branch at person, withdraw money or make a check or request a statement of accounts. In a real internet banking, any questioning or activity is processed online without any reference to the branch (any banking) at any time. The provision of online banking is on the rise it becomes a "need for" there is a "good service" to be. Net banking, therefore, is now more common than many



countries have developed because it is the cheapest way to provide banking services. Rapid development of E-banking services have risks and benefits. This research paper will present you via e-banking and provide a description, functions, types, benefits and challenges to e-banking acceptance. It also aims to suggest ways to make e-banking more effective at a developing country like India.

### Objectives

- To Analyze the impact of covid-19 on Indian banking
- To study the impact of covid-19 on customers preference towards e banking
- To evaluate the customers perceptions towards E-banking services in India

### Research Methodology

The data required for this study is collected from both primary sources and secondary sources and this study takes up under descriptive method of research

**Primary Data:** The primary data for the study is collected through the questionnaire with open ended and close ended questions.

**Secondary Data:** The secondary data for the study is collected from various sources like journals, magazines and websites.

**Sampling Design:** This study uses a combination of exploratory and descriptive research and the responses for the questionnaire has been recorded from 100 people using random sampling method

### Results and Analysis

#### Demographics

S. No.	Category	Description	Gender		No. of Respondents	(% of Respondents)
			Male	Female		
01.	Age 31-40 41-50 51-60 60 and above	20-30	16	09	25	50
		07	08	15	30	
		02	04	06	12	
		03	-	03	06	
		01	-	01	02	
TOTAL			29	21	50	100
02.	Gender Female	Male	29	-	29	58
		-	21	21	42	
TOTAL			29	21	50	100
03.	Qualification PUC Graduate Post Graduate Professional Degree	Up to SSLC	04	-	04	08
		02	04	06	12	
		09	08	17	34	
		06	06	12	24	
		08	03	11	22	
TOTAL			29	21	50	100
04.	Occupation	Agriculturist	-	01	01	02
		Business	11	03	14	28
		Professional	02	03	05	10
		Employee in Public Sector	05	01	06	12
		Employee in Private Sector	08	08	16	32
		Student	02	05	07	14
		Retired Employee	01	-	01	02
TOTAL			29	21	50	100
05.	Monthly Income	Below 10,000	02	06	08	16
		10,000-20,000	08	06	14	28
		20,000-30,000	12	05	17	34
		30,000-40,000	03	03	06	12
		40,000-50,000	02	01	03	06



		50,000-1,00,000	01	-	01	02
		1,00,000 and above	01	-	01	02
TOTAL			29	21	50	100
06.	Marital Status	Single	17	10	27	54
		Married	12	11	23	46
TOTAL			29	21	50	100
07.	Family Members	Up To 3	07	05	12	24
		4-6	21	14	35	70
		6 and above	01	02	03	06
TOTAL			29	21	50	100
08.	Type Of Account	Savings A/C	17	19	36	72
		Current A/c	12	02	14	28
TOTAL			29	21	50	100

**Table 1**

Table 1 above shows the social and economic profile of selected online banking users in Coimbatore. 50% of customers in the 20 - 30 age group in the Coimbatore region use the Internet of the bank. In this case, 58% are male. It is also clear that graduates may use the Internet banking; 32% of customers work online banking in private organizations. 34% of the Internet bank users come from a middle-income group. The majority of Internet Banking Married users at 54% and 72% of bank savings account holders using online banking services

**Customers Awareness about e security**

Sl. No.	Types of Security /Protection Mode	SA		A		N		D		SD	
		No	%								
01.	Security Code	19	38	21	42	05	10	03	06	02	04
02.	Password protection	23	46	21	42	05	10	01	02	00	00
03.	Transaction Security	14	28	20	40	09	18	05	10	02	04
04.	Confidentiality	06	12	12	24	07	14	15	30	10	20
05.	Authentication Security	04	08	09	18	10	20	16	32	11	22
06.	Hardware Security	05	10	09	18	08	16	14	28	14	28
07.	Database Security	09	18	16	32	02	04	12	24	11	22
08.	Memory Protection	07	14	20	40	04	08	13	26	06	12
09.	File Security	10	20	22	44	06	12	05	10	07	14

**Table 2**

Table 2 shows the level of online banking security awareness among selected customers at the ADU centre. It turns out that 42% of respondents know the security code for using online banking; 46% of respondents are aware of password protection; 40% are aware of transaction security; 24% of people know about privacy security; 18% know hardware security; 32% of respondents are aware of database security; 40% are aware of memory protection; and 44% of respondents know file security. It shows that top customers know the security of password protection.

**Advantages of traditional banking**

S. No.	Banking Services / Facilities	SA		A		N		D		SD	
		No	%								
1.	Interaction with Banker	07	14	21	42	02	04	18	36	02	04
2.	Easy Deposit and Withdrawal	03	06	12	24	04	08	22	44	09	18
3.	Collection Of Cheque	08	16	22	44	01	02	13	26	06	12
4.	Demand Draft	14	28	25	50	01	02	09	18	01	02
5.	Security	10	20	32	64	03	06	04	08	01	02
6.	Security Lockers	17	34	20	40	02	04	06	12	05	10

**Table 3**

Table 3 shows the benefits of the traditional banking system. It revealed that 42% of respondents agreed on the benefits of communicating with bank employees; 44% of respondents disagree with the benefits of easy deposit and withdrawal; 44% of



respondents agree with the benefits of check collection; 50% of respondents agree with the benefits of the desired framework; 64% of people agree on safety benefits; and 40% of respondents agree with the benefits of security locks. It is evident that the elite have benefited from a secure traditional bank.

#### Use of E- banking services

S. No.	Usage of Internet Banking Services	SA		A		N		D		SD	
		No	%								
1.	Secured Transaction	-	-	02	04	03	06	25	50	20	40
2.	Quick Settlement	21	42	28	56	01	02	-	-	-	-
3.	Electronic Fund Transfer	13	26	33	66	02	04	02	04	-	-
4.	Electronic Clearing Services	12	24	31	62	03	06	04	08	-	-
5.	Electronic Payment Services	11	22	22	44	02	04	11	22	04	08
6.	National Electronic Fund Transfer	16	32	24	48	04	08	03	06	03	06
7.	Real Time Gross Settlement	11	22	25	50	06	12	04	08	04	08
8.	Core Banking System	03	06	13	26	02	04	17	34	15	30

**Table 4**

Table 4 shows the use of Internet banking services. It sees 50% of respondents disagree with the use of secure transactions; 56% of respondents agree with the use of immediate stay; 66% of respondents agreed with the use of electronic wallet transfers; 62% of respondents approved the use of electronic clearing services (ECS); 44% of respondents approved the use of an electronic payment service; 48% of respondents approve of the use of the national fund transfer; 50% of respondents agree with the use of real-time payment (RTGS); 34% of respondents disagree with the central banking system. It concludes that senior respondents have approved the use of electronic wallet transfers

#### E Banking preferred for .....

S. No.	Description	SA		A		N		D		SD	
		No	%								
1.	Online Ticket Booking	37	74	11	22	02	04	-	-	-	-
2.	Online Bill Payment	37	74	09	18	03	06	01	02	-	-
3.	Balance Enquiry	36	72	11	22	03	06	-	-	-	-
4.	Request for Cheque Book	02	04	06	12	09	18	18	36	15	30
5.	Income Tax/TDS Payment	09	18	22	44	07	14	10	20	02	04
6.	Service Tax/Central Excise	11	22	17	34	07	14	13	26	02	04
7.	Insurance Premium Payment	02	04	11	22	06	12	23	46	08	16
8.	Online Shares Trading	09	18	10	20	07	14	15	30	09	18
9.	TNEB Payments	27	54	15	30	04	08	04	08	-	-
10.	Online Shopping	28	56	19	38	-	-	03	06	-	-

**Table 5**

Table 5 shows the purpose of using the Internet banking services. It shows that 74% of respondents use online banking to book tickets online; 74% of respondents use online banking to pay online bills 72% check balance; 44% of Income Tax Payment; 54% of TNBE payments; and 56% online shopping. It has also been found that respondents do not use online banking to pay for insurance and online stock trading. It is evident that top responders use online banking to book tickets online and pay bills online.

#### Hypothetical Testing

H<sub>1</sub>: Internet banking has no significant relationship with traditional banking system.

Correlations														
Description	Correlations	IWB	Dw	CC	DD	secu- rity	SL	TS	ATB	AWB	EA	NQ	EM	FR
IWB	Pearson Correlation	1	0.52	-0.81	-.261	.039	.104	-.086	-.203	-.212	-.021	-.061	.014	.208
	Sig.		.721	.578	.067	.787	.472	.553	.158	.139	.886	.674	.921	.147



	(2-tailed)													
DW	Pearson Correlation	.052	1	-.029	.099	-.034	.353*	.048	-.128	-.023	-.222	-.031	-.346*	-.101
	Sig. (2-tailed)	.721		.843	.492	.816	.012	.743	.375	.874	.121	.830	.014	.483
CC	Pearson Correlation	-.081	-.029	1	.015	.157	.071	-.141	-.026	-.018	.138	.012	.209	.008
	Sig. (2-tailed)	.578	.843		.917	.275	.625	.328	.858	.902	.341	.933	.145	.957
DD	Pearson Correlation	-.261	.099	.015	1	-.077	-.239	.040	.123	.209	.339*	-.155	-.069	-.304*
	Sig. (2-tailed)	.067	.492	.917		.593	.094	.781	.395	.145	.016	.284	.633	.032
Security	Pearson Correlation	.039	-.034	.157	-.077	1	-.052	-.120	.077	-.090	.229	.109	.140	.032
	Sig. (2-tailed)	.787	.816	.275	.593		.718	.405	.596	.534	.110	.452	.333	.825
SL	Pearson Correlation	.104	.353*	.071	-.239	-.052	1	-.111	-.286*	-.121	-.246	.149	-.053	.191
	Sig. (2-tailed)	.472	.012	.625	.094	.718		.443	.044	.403	.086	.302	.714	.184
TS	Pearson Correlation	-.086	.048	-.141	.040	-.120	-.111	1	.539**	.520**	.254	-.030	.170	-.105
	Sig. (2-tailed)	.553	.743	.328	.781	.405	.443		.000	.000	.075	.836	.237	.467
ATB	Pearson Correlation	-.203	-.128	-.026	.123	.077	-.286*	.539**	1	.764**	.317*	.176	.015	-.243
	Sig. (2-tailed)	.158	.375	.858	.395	.596	.044	.000		.000	.025	.221	.918	.089
AWB	Pearson Correlation	-.212	-.023	-.018	.209	-.090	-.121	.520**	.764**	1	.274	.140	.133	-.266
	Sig. (2-tailed)	.139	.874	.902	.145	.534	.403	.000	.000		.054	.332	.358	.062
EA	Pearson Correlation	-.021	-.222	.138	.339*	.229	-.246	.254	.317*	.274	1	-.298*	.504*	.056
	Sig. (2-tailed)	.886	.121	.341	.016	.110	.086	.075	.025	.054		.036	.000	.697
NQ	Pearson Correlation	-.061	-.031	.012	-.155	.109	.149	-.030	.176	.140	-.298*	1	-.334*	-.136
	Sig. (2-tailed)	.674	.830	.933	.284	.452	.302	.836	.221	.332	.036		.018	.347
EM	Pearson Correlation	.014	-.346*	.209	-.069	.140	-.053	.170	.015	.133	.504*	-.334*	1	.445**
	Sig. (2-tailed)	.921	.014	.145	.633	.333	.714	.237	.918	.358	.000	.018		.001
FR	Pearson Correlation	.208	-.101	.008	-.304*	.032	.191	-.105	-.243	-.266	.056	-.136	.445*	1
	Sig. (2-tailed)	.147	.483	.957	.032	.825	.184	.467	.089	.062	.697	.347	.001	
* Correlation is significant at the 0.05 level														
Correlations														

Table 6



Pearson's integration value ranges from 1 to +1 with negative numbers representing negative combinations (such as one variable rise, another variable decreasing) and positive numbers representing positive interactions (such as increasing one variation, some also increasing). When the value is very close to -1 or +1 the strength of the relationship is between the variables. There is a good relationship between the traditional banking system and the Internet banking system. The above results do not indicate any significant correlation between traditional and online banking system. Therefore, the null hypothesis, H01, was adopted.

H<sub>2</sub>: Internet banking security has no significant impact on the customers

Correlations										
Description	Correlations	SCG	PPS	TS	CS	AS	HS	DS	MPS	FS
SCG	Pearson Correlation	1	-.122	-.046	-.052	.060	-.045	-.039	-.035	-.280*
	Sig. (2-tailed)		.399	.753	.722	.679	.758	.786	.808	.049
PPS	Pearson Correlation	-.122	1	.064	.154	-.183	-.198	-.037	-.145	.139
	Sig. (2-tailed)	.399		.661	.285	.203	.169	.798	.314	.334
TS	Pearson Correlation	-.046	.064	1	.064	-.144	-.251	-.427	-.015	.029
	Sig. (2-tailed)	.753	.661		.661	.318	.079	.002	.920	.840
CS	Pearson Correlation	-.052	.154	.064	1	-.068	-.091	-.266	-.082	-.207
	Sig. (2-tailed)	.722	.285	.661		.637	.529	.062	.573	.148
AS	Pearson Correlation	.060	-.183	-.144	-.068	1	-.166	-.055	-.216	.021
	Sig. (2-tailed)	.679	.203	.318	.637		.248	.704	.132	.887
HS	Pearson Correlation	-.045	-.198	-.251	-.091	-.166	1	.266	.072	.076
	Sig. (2-tailed)	.758	.169	.079	.529	.248		.062	.622	.599
DS	Pearson Correlation	-.039	-.037	-.427**	-.266	-.055	.266	1	.253	-.304*
	Sig. (2-tailed)	.786	.798	.002	.062	.704	.062		.076	.032
MPS	Pearson Correlation	-.035	-.145	-.015	-.082	-.216	.072	.253	1	-.157
	Sig. (2-tailed)	.808	.314	.920	.573	.132	.622	.076		.277
FS	Pearson Correlation	-.280*	.139	.029	-.207	.021	.076	-.304*	-.157	1
	Sig. (2-tailed)	.049	.334	.840	.148	.887	.599	.032	.277	

\* Correlation is significant at the 0.05 level(2 – tailed)

Table 7

The results from Table 7 show that there is a significant and negative correlation between SCG and FS. There is also an inconsistent and significant interaction between DS and FS. The above results show that online banking security does not have a significant impact on customers. Therefore, the null hypothesis, H02, was adopted.

**Conclusion**

The pandemic is affecting the financial services industry in a number of ways, from going concern operational issues and considerations on the overall financial perspective. Financial services companies are mobilizing and by taking steps to minimize these impacts, they are likely to face short- and long-term implications in both returns and balance sheet items. And the central bank has announced a series of measures to help banks and borrowers overcome this crisis. In the first set of measures, the RBI announced a rate of 75 basis points cutoff, liquidity measures in the amount of Rs 3.74 lakh crore, including the long-term repurchase operation (TLTRO) worth Rs 1 crore lakh. And the pre-impact of Covid-19 is different from the post- impact, and the post-impact can affect the much of the Indian economy.



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