A MULTI-GROUP STUDY OF PUBLIC AND PRIVATE BANK CUSTOMERS ON THE IMPACT OF COVID-19 ON BANK GROWTH

ABSTARCT

Purpose: Every country's banking system plays a vital role in its economy. The research focused on examining the impact of bank and Reserve Bank of India (RBI) policies and measures on online and offline services offered during COVID-19, as well as the impact of COVID-19 on the bank's growth from the perspective of banking customers. **Methodology:** A Google Form questionnaire was used to gather information from bank customers. Smart PLS SEM was used to analyze the data collected. A total of 412 responses were taken as a sample size. **Findings:** It can be concluded that customers significantly believe that policies and measures, including online and offline facilities, have significantly impacted the bank's growth. **Originality value:** No study evaluated the impact of policies and measures issued during COVID-19 on online and offline facilities provided by banks. There was no literature review that looked at how customers perceived the growth of the banking sector during COVID-19.

Keywords: Policies and measures, online facilities, offline facilities, bank growth

INTRODUCTION

The banking system is essential to the economy of every country, playing a vital role by meeting the credit needs of all its citizens. India's growth potential is predicated on its strong financial system. The introduction of information technology into the banking sector has drastically transformed the way the industry operates. Banks had no choice but to embrace this new transformation to survive in the new globalized world. India's banking history is a long one. Technology and innovation have changed it a lot. Banking is becoming a financial supermarket, providing a variety of financial services under one roof. The financial system is changing due to intense rivalry among banks. Modern banking seeks new ways to attract and keep consumers, as well as acquire a competitive advantage over competitors.

The Indian banking sector has experienced a growing digital presence, strengthening its influence to enhance financial operations. Indian banks have introduced real-time gross settlement (RTGS) and national electronic funds transfer (NEFT). The Reserve Bank of India (RBI) has implemented measures to ease mobile payments, a pivotal aspect of mobile banking. The National Payments Corporation of India developed the Unified Payments Interface (UPI), a real-time payment system enabling instantaneous money transfers between two bank accounts via a mobile app.

The pandemic in India has increased the significance of digital banking, leading to increased expectations among consumers for prompt and personalized services. Many individuals, while staying at home, are now relying on digital channels, both online and mobile, for their banking transactions. Consequently, there has been a decline in traditional branch visits and face-to-face interactions with bank staff.

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It is imperative for banks to actively encourage customers to utilize existing digital services to help control the spread of COVID-19. The digital footprint in banking has expanded since March 2020, with banks using digital channels to onboard new customers, handle deposits and withdrawals, facilitate remittances, and manage payment collections. The prospects of India's banking industry depend on the speed of the economic recovery from the pandemic. **(Thakor, 2020).** According to a report by Financial Express in January 2021, UPI transactions surpassed cards, net banking, and wallets by 120 percent in 2020, emerging as the preferred mode of payment, especially in tier II and III cities in India. Online transactions increased by 80% inIndia0 in 2020, indicating that digital payments are becoming widely used by consumers for personal and business payments. According to the report, digital payments for utilities and bills will have increased 357 percent by 2020, while mutual fund payments will have increased 382%. Education, e-commerce, and healthcare all grew by 167, 189, and 148%. In February 2022, the India Today report **(*India Today, Eight in Ten Banks*, n.d.)** states that the COVID-19 pandemic has driven consumers toward digital payments as ATM use has declined and, at the same time, digital payment use has increased. Eight out of ten account holders are now using mobile apps for payments. Nirmala Sitharaman, the finance minister,

also suggested in February 2022 that banks should be more customer-friendly to assist entrepreneurs. Banks will need to improve their customer service significantly. It should not be to the point of taking unnecessary risks, but banks should be significantly more customer friendly. **(*Nirmala Sitharaman Bank News: Times of India*, n.d.).**

Based on the preceding discussion, the research will examine the impact of bank and RBI policies and measures on online and offline services offered during COVID-19, as well as the impact of COVID-19 on the bank's growth from the perspective of banking customers. Thus, to study the impact of COVID-19, the research has taken four constructs, namely, policies and measures issued by the RBI and the Bank, online facilities, offline facilities, and bank growth.

REVIEW OF LITERATURE

POLICIES AND MEASURES

(Ramasamy, 2020) stated that approximately 35% of borrowers have taken use of the moratorium option given by banks. The findings of **(Bobade and Alex 2020)** study indicate that there is a desire among banking customers for financial relief. In response to this, the Reserve Bank of India has actively encouraged national banks to develop and implement effective banking policies that cater to the needs and preferences of their customers.

ONLINE FACILTIES

(Perwej , 2020) banks must focus on complete transformation by digitalizing all its operations. In the year 2020, KPMG stated that COVID-19 is a terrific opportunity to encourage people to use their digital skills more. In the most sophisticated economies, there is a chance of an unanticipated worldwide recession **(Latorre et al., 2020).** The total number of online transactions has climbed by 28 % from 2019-2020 to 2020-2021 whereas in terms of value, there has been a drop of roughly 13%. An overall analysis shows that there is a decreasing trend in paper-based transactions compare to digital banking transactions in Covid- 19 period**.(Devi Khandelwal et al., 2022). (Bagewadi & Dhingra, 2020)** observed that infrastructure for online banking has improved a lot since Covid-19. **(Sharma & Mathur, 2022)** stated that banks are modifying their business models for digital payments. Since Covid-19, the number of internet customers has grown. **(Indrasari et al., 2022)** During the Covid-19 epidemic, customer service had no effect on e-banking user satisfaction or loyalty.

(Baicu et al., 2020) investigated how the COVID-19 crisis influenced consumer behaviour in the retail banking sector, with a specific focus on the Romanian banking industry. The study collected 738 valid responses. The results suggest a direct and positive correlation between consumers' perceptions of the impact of the COVID-19 pandemic on their lifestyle and their stance toward internet and mobile banking services. This connection is influenced by factors like the perceived safety of using internet and mobile banking and consumers' trust in banks.

OFFLINE FACILITIES

As per **(Ramasamy, 2020)** Many branches have closed as a result of Covid-19. **(Saldanha & Nitin, 2021)** reported that the pandemic has shaped customers' perceptions of the banking sector. The primary catalysts for change are existing beliefs and practices. Individuals who preferred in-person or physical interactions with their banks faced adverse effects. **(Ozatac et al., 2016)** identified the factors influencing customer satisfaction and service quality in North Cyprus' banking sector. The analysis utilized the SERVQUAL model, revealing that customer satisfaction in banking hinges on robust and enduring relationships, fostering trust between customers and bank employees. Many customers still prefer personal in-branch service, particularly for more sophisticated services and guidance, just as the majority still value local branches**(Devi Khandelwal et al., 2022). (International Finance Corporation, 2021)** stated that Banks should reconsider their business models and shift away from physical customer relationship management toward digital customer relationship management. This implies bridging the digital divide between branches and banks. Banks should use advanced data analytics to help customize offerings to customers.

BANK GROWTH

Covid-19 the level of NPAs in the already fragile banking system will increase precipitously **(Mahendra Dev & Sengupta, 2020). (Demirgüç-Kunt et al., 2021)** suggested that the impact of the COVID-19 shock was more harmful to banks than to corporations or other non-bank financial institutions. This suggests an expectation that banks would absorb the shock, at least to some extent, for the corporate sector.

The success of lending operations is crucial for commercial banks as it constitutes a major revenue stream. A notable increase in loan defaults in recent years has significantly raised the ratio of non-performing advances, negatively impacting the bank's profitability.**(Das & Uppal, 2021). (Mohanty, 2021)**found that Indian public sector banks have higher NPA than private sector banks. **(Selvan & Kumar, 2021)** placed HDFC first when study of seven banks was conducted**.** Based on the Return on Assets (RoA) ratio, the COVID-19 condition shows that the financial sector has low profitability. RoA appears to be declining by 50

to 90 basis points in the coming fiscal year 2021 **(mathew et al., 2019).** According to **(Deloitte Touche Tohmatsu India LLP, 2020)** findings, it has been determined that the anticipated effect of the COVID-19 pandemic on credit growth is predominantly negative, encompassing a wide range of sectors within the economy. In the context of the banking sector, it is plausible to posit that the occurrence of a transient disruption may potentially engender apprehensions pertaining to the ease of access to financial services. The ongoing global pandemic is anticipated to result in a decrease in loan activity and a significant reconfiguration of employee responsibilities. **(Introduction, n.d.)**. stated that banks may be unable to assess the crisis's impact on their customers and their ability to repay loans in the short term, especially when the debt moratorium benefits granted to customers are considered. The pandemic is anticipated to bring about a reduction in loans and a shift in the roles of employees. Financial institutions have initiated efforts to address the pressing need for business continuity in response to current circumstances.

POLCIES AND MEASURE TO ONLINE FACILTIES

(Ramasamy, 2020) suggested that Bank's Digital customer service should be able to handle queries quickly and effectively. Banks should identify essential paper documentation for specific financial products and provide a digital option.

POLCIES AND MEASURE TO BANK GROWTH

PricewaterhouseCoopers (PWC) in its report stated that the banks need to operate on branch hour extension, sales and service planning, leveraging digital assets, optimization of operational cost. The main concern highlighted in this research was method of cost optimization by the banks when revenue is already reducing. **(Pwc, 2020). (Singh, 2020)** suggests that the RBI should implement all possible initiatives to ensure ample liquidity in the financial system. The Government of India is mandated to undertake strategic measures and initiatives aimed at mitigating uncertainty and alleviating economic strain within India. **(Thakor, 2020)** The Government of India is mandated to undertake strategic measures and initiatives aimed at mitigating uncertainty and alleviating economic strain within the nation. According to **(Li et al., 2020),** COVID19 lockdown resulted in the largest ever liquidity shock to the banking system. In late March 2020, bank liquidity demands reached historically unheard-of heights. The study also found that even major banks are experiencing liquidity challenges, primarily because their funds are being utilized rather than saved. As per **(Covid, P. 2021)**, public sector banks outperform private sector banks in terms of the return on equity ratio, with the former exhibiting a higher ratio than the latter. **(Bagewadi & Dhingra, 2020)** observed that the banks in India can reduce overall damage and are working on recovering from the pandemic. (Singh 2020) determined that small private banks may be compelled to reduce lending due to liquidity constraints. The study also found that even after the lifting of the lockdown, the banking sector will require an extended period to return to normalcy. The research paper further suggests that the RBI should take all possible measures to ensure sufficient liquidity in the financial system. Additionally, the Government of India needs to make decisions and implement actions to alleviate ambiguity and financial stress in the economy.

ONLINE FACILTIES TO BANK GROWTH

(Devi Khandelwal et al., 2022) observed that the Covid-19 pandemic directly and positively influenced the adoption of online and mobile banking services by consumers. The pandemic served as a catalyst for the creation of innovative financial products and services, leading to the advancement and introduction of technologically sophisticated financial solutions**.** The banking industry may see an increase in all digital banking transactions. **(Kumari & Balanagalakshmi, 2022)** stated that banking customers who are not competent at using digital banking formations are also obliged to adapt the modifications. Customers are embracing pre-covid 19 horrors like as virtual mode interaction, online lending, and payment. **(Mathew et al., 2019)** reported an increased inclination toward online or digital banking by banks during the pandemic period. The banking industry has had a difficult time adjusting to social changes brought on by the pandemic crisis while also trying to comprehend new behaviours and provide customers with easy services and goods. The research paper also concluded that The Covid 19 pandemic has a direct and positive impact on the development and introduction of Technologically advanced banking products and also volume of digital payments is increasing day by day since Covid-19.

OFFLINE FACILITIES TO BANK GROWTH

According **(Luhana, 2022)**, it is necessary to adhere to a minimum distance of one meter to ensure safety during various banking activities such as cash deposits, withdrawals, and regular teller services. Indian banks, currently involved in various core banking operations, are poised to prioritize a comprehensive transition by digitizing all their activities. **(Kumari & Balanagalakshmi, 2022)** Customers have started adapting to changes which were once considered as nightmare during COVID 19 such as interaction in virtual move online lending and payment. **Ramasamy (2020)** indicated that branches with limited staffing have shut down due to various constraints and a shortage of employees, leading to

adverse effects on the earnings and operations of the banks. Essential tasks such as deposits, withdrawals, loans, pledges, document collections, verifications, and other miscellaneous banking procedures had also experienced its impact.

RESEARCH GAP

There is no research available in which the perception of bank customers is evaluated in relation to policies and measures issued during COVID-19, offline facilities provided by the bank, and bank growth during COVID-19. Although there is a lot of research evaluating the online facilities provided before, during, and after COVID-19, no research has studied the online facilities' impact on bank growth from the perception of banking customers. There is no research available that evaluates the policies and measures issued by the RBI during COVID-19 and their impact on offline facilities during COVID-19. Also, there is no research available that has compared perceptions of public sector and private sector bank customers on bank growth during COVID-19.

OBJECTIVE

- To examine the impact of policies and measures on online and offline facilities provided by public and private sector banks during the COVID-19 period from the perspective of bank customers.
- To look at how policies and measures affected the growth of banks during the COVID-19 period, as seen from the banks' point of view.
- To examine the impact of banks' online and facility activities on bank growth during the COVID-19 period from the perspective of bank

HYPOTHESES

H1: Policies and measures have no significant impact on the online facilities provided by both banks.

H2: Policies and measures have no significant impact on the offline facilities provided by both banks during COVID-19 from the perspective of bank customers.

H3: Policies and measures have no significant impact on the bank's growth during the COVID-19 period from the perspective of bank customers.

H4: Online facilities provided by both the banks have had no significant impact on the bank's growth during the COVID-19 period from the perspective of bank customers.

CONCEPTUAL FRAMEWORK

The global impact of the COVID-19 pandemic has had profound implications for the sustained viability of businesses, intensifying unpredictable environmental conditions, increasing competitiveness, and bringing about unforeseen technological advancements. Banks across the world have played a significant role as systemic stabilizers for their customers by offering online and offline services such as deposit services, credit extension, and simple payment facilitation during COVID-19. As a result, a model is being developed to study the impact of policies and measures, online facilities, and offline facilities on a bank's growth during COVID-19 from the perspective of a banking customer. The study consists mainly of four constructs (Figure 1), namely: policies and measures of the RBI; online facilities provided by the bank; offline facilities provided by the bank; and bank growth during COVID-19.

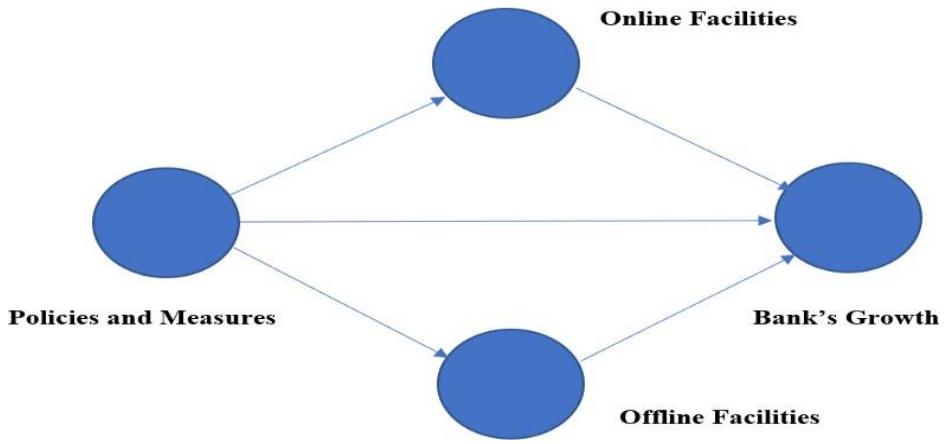

Figure 1: Conceptual Framework

"Policies and measures" include indicators like customers knowing all RBI COVID-19 schemes. This indicator asks if the bank made customers aware of the moratorium provided by the RBI during COVID-19 and if the RBI and the bank helped customers meet their financial needs during COVID-19. The second construct, "Bank online facilities during COVID-19," includes indicators like error-free online transaction services. Customers appreciated their bank's payment gateway and website. Since COVID-19, banks' iOS and Android apps have improved. Banks made online transactions easier. The third construct, "offline facilities provided by the bank during COVID-19," includes indicators like: Customers were satisfied with the bank's offline facilities during COVID-19. The staff knew the bank's products and services. When COVID-19 customers visited banks offline, branch staff were friendly and courteous. The branch followed COVID-19's social distance rules. The fourth construct, "Bank growth during COVID-19," includes indicators like the size of a bank's lending having grown during COVID-19. In COVID, the number of bank customers has decreased 19 times. During COVID-19, the size of the bank's deposit has decreased. The bank's interest income has increased. Non-performing assets for the bank have increased since COVID-19. The market capitalization of banks has increased during the last 19 years. During COVID-19, the bank made a net profit.

RESEARCH METHODOLOGY

A standardized questionnaire using Google Forms was used to collect the data. The adequacy of the sample size was evaluated through the application of Taro Yamane's formula. (Yamane, 1973).The formula is as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = sample size required

N = number of people in the population

e = allowable error (%)

Therefore, the sample size for this research is:

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{5{,}000{,}000}{1 + 5{,}000{,}000(0.05)^2}$$

$$n = 400$$

In this investigation, the formula was tested at a 95% confidence level, with a 5% margin of error (0.05). The anticipated target population was 5,000,000 people. This study's sample size is 400 participants, according to calculations. ***Data from 412 respondents was used in the study. Two independent variables, RBI policies and measures and the online facilities offered by the bank, as well as one dependent variable, the bank's growth, were also examined in the study.*** A Google Form questionnaire and stratified sampling were both used to gather information from bank customers. Smart PLS SEM was used to analyze the data collected.

PILOT STUDY

Smart PLS Sem 3.3.6, the most recent software was used for data analysis for pilot study. There were 28 indications in all for the four constructs (Figure 2). Following a preliminary study of the items, a reliability and validity analysis was performed, and the items with loadings less than 0.70 were eliminated. A total of 18 indicators remained after the initial screening.

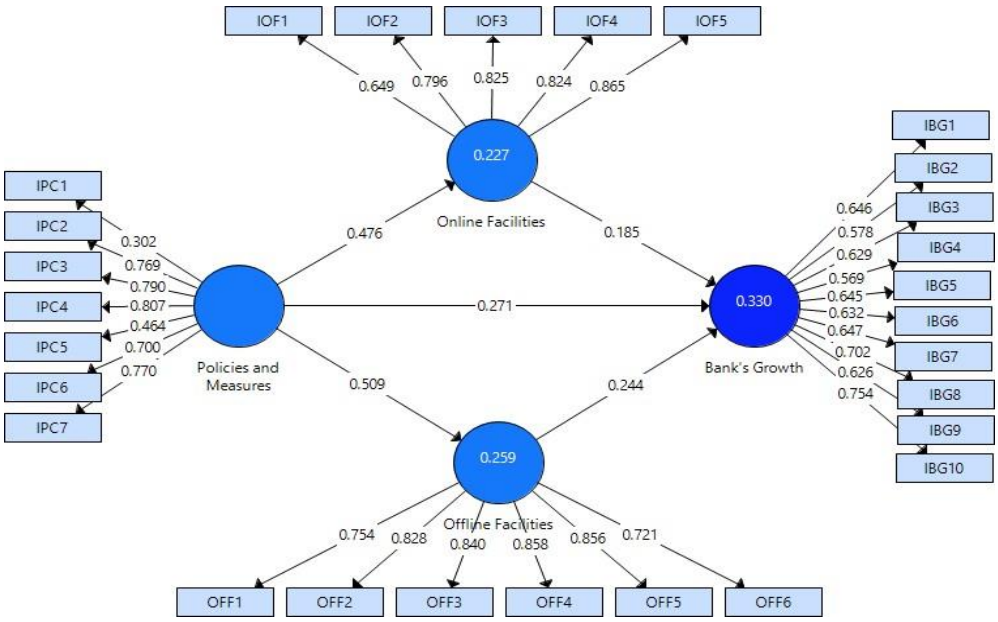

Figure 2: Pretesting of Instrument
Source: The authors utilized SmartPLS to develop their ow n model.

FINDINGS AND ANALYSIS

DEMOGRAPHIC

The information was gathered from 412 bank customers; of those, 219 were female and 193 were male. All of them are bank customers in the state of Madhya Pradesh, India (Table 1). When the ratios of consumers with accounts in public sector banks, private sector banks, and both banks are compared on a male-to-female basis, it can be observed that 34.92% of female customers have accounts only in private sector banks, whereas 65.08% of male customers have bank accounts only in public sector banks. It was further analyzed that 40.17% of females have accounts in both banks, whereas 59.83% of males have accounts in both banks.

When the frequency of customers' ages was compared, it was found that customers between the ages of 26 and 35 made up 8.62% of those with accounts only in public sector banks, 12.70% of those with accounts only in private sector banks, and 27.35% of those with accounts in both public and private sector banks. When the age group of 36 to 50 years was compared, it was found that 9.05% of customers had bank accounts only in public sector banks, 1.59% had bank accounts alone in private sector banks, and 12.82% had accounts in both public and private sector banks. When the status of employment was compared, 35.04% of private sector employees as well as 14.53% of professionals had accounts in both public and private sector banks.

Table 1: Summary of the Demographic Profile

Frequencies of Gender								
Levels	**Public Sector Bank (N=232)**		**Private Sector Bank (N=63)**		**Both Banks (N=117)**		**Total Counts**	**% of Total**
	Counts	**%**	**Counts**	**%**	**Counts**	**%**		

Female	131	56.47	41	65.08	47	40.17	219	53.2
Male	101	43.53	22	34.92	70	59.83	193	46.8
Frequencies of Age								
18-25	186	80.17	52	82.54	66	56.41	304	73.8
26-35	20	8.62	8	12.70	32	27.35	60	14.6
36-50	21	9.05	1	1.59	15	12.82	37	9.0
51-60	4	1.72	1	1.59	4	3.42	9	2.2
61 and above	1	0.43	1	1.59	0	0.00	2	0.5
Frequencies of Qualification								
High School	17	7.33	5	7.94	4	3.42	26	6.3
Pursuing Bachelor's Degree	107	46.12	27	42.86	36	30.77	170	41.3
Completed Bachelor's Degree	55	23.71	17	26.98	24	20.51	96	23.3
Master's Degree	30	12.93	11	17.46	31	26.50	72	17.5
Any such professional degree	23	9.91	3	4.76	22	18.80	48	11.7
Frequencies of Employment Status								
Student	165	71.12	43	68.25	49	41.88	257	62.4
Home Maker	4	1.72	2	3.17	0	0.00	6	1.5
Private Sector Employee	27	11.64	13	20.63	41	35.04	81	19.6
Public Sector Employee	12	5.17	1	1.59	2	1.71	15	3.6
Professional	14	6.03	1	1.59	17	14.53	32	7.8
Business	10	4.31	3	4.76	8	6.84	21	5.1
Frequencies of Household Income								
Less than 2,50,000 INR	84	36.21	17	26.98	27	23.08	128	31.1
2,50,001 INR – 5,00,000 INR	62	26.72	23	36.51	33	28.21	118	28.6
5,00,001 INR – 10,00,000 INR	66	28.45	13	20.63	28	23.93	107	26.0
10,00,001 INR – 25,00,000 INR	16	6.90	8	12.70	22	18.80	46	11.2
25,00,001 INR and above	4	1.72	2	3.17	7	5.98	13	3.2

Frequencies of Type of Bank Account								
Saving	200	86.21	54	85.71	85	72.65	339	82.3
Current	11	4.74	3	4.76	3	2.56	17	4.1
Both	21	9.05	6	9.52	29	24.79	56	13.6

Source: Authors Own Calculations using Jamovi.

CONFIRMATORY COMPOSITE ANALYSIS

Confirmatory composite analysis is a model specification and evaluation technique based on structural equation modeling (SEM). The construct emerges from a composite model as a linear combination of observed variables. Confirmatory composite analysis employed a measurement model to test the model's reliability, discriminant validity to test the model's validity, NFI and SRMR for model fit, and bootstrapping to test the model's hypotheses.

MEASUREMENT MODEL

The factor loading in Smart PLS software is calculated using partial least squares, and it should be more than 0.70.

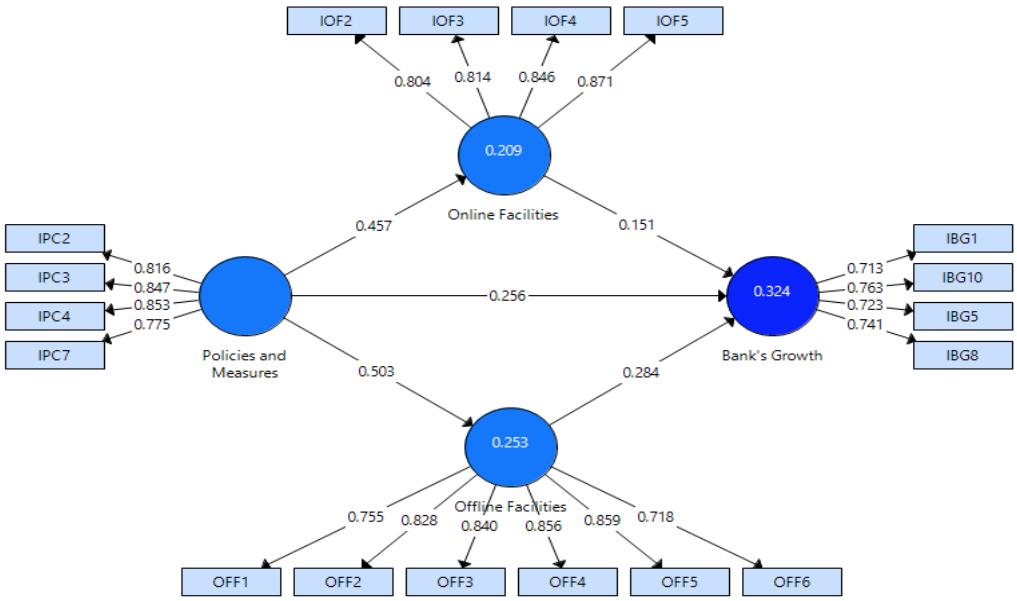

Figure 3: Measurement model
Source: The authors utilized Smart PLS software to perform their own calculations.

As shown in Figure 3, all indicators have a factor loading greater than 0.70, so it is reasonable to conclude that all indicators are adequate, and that no indicator should be reduced further. Following the pilot study, the constructs' reliability was tested using confirmatory composite analysis. Cronbach's alpha, composite reliability, and Rho A with a threshold greater than 0.7 are all acceptable.

Table 2: Construct Reliability and Validity

Constructs and Indicators	Factor Loadings	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Policies and Measures					
Your bank helped you to transfer benefit of RBI scheme during covid 19 **(IPC2)**	**0.816**				
Your bank made you aware of moratorium benefit during Covid 19 **(IPC3)**	**0.847**	**0.841**	**0.842**	**0.894**	**0.678**
RBI and Bank measures helped you in Covid 19 to meet your financial needs **(IPC4)**	**0.853**				
Your Loyalty towards your bank has increased after Covid-19. (**IPC7)**	**0.775**				
Online Facilities					
Online facilities like digital payments, RTGS etc provided by the bank have been increased since Covid-19 **(IOF2)**	**0.804**				
After Covid-19 online transaction service provided by your bank is more error free. **(IOF3)**	**0.814**	**0.854**	**0.858**	**0.901**	**0.695**
You were satisfied with the Digital Payment gateway(like mobile banking, UPI etc.) of bank used during Covid-19 **(IOF4)**	**0.846**				
You were satisfied with the Banks website / online app. **(IOF5)**	**0.871**				
Offline Facilities					
You were satisfied with the offline facilities of bank provided during Covid 19 **(OFF1)**	**0.755**				
The branch staff were having required skills and knowledge about the bank's products and services. **(OFF2)**	**0.828**				
The branch staff were friendly and behave in a courteous manner when dealing with you. **(OFF3)**	**0.840**	**0.895**	**0.897**	**0.920**	**0.658**
The branch staff are professional and have a pleasing and presentable appearance. **(OFF4)**	**0.856**				
The branch staff are willing to listen and respond to your needs on time. **(OFF5)**	**0.859**				
The branch was following all the norms relating to social distancing. **(OFF6)**	**0.718**				
Bank's Growth					
Size of Bank's lending (□□□□) have grown in Covid-19 times. **(IBG1)**	**0.713**				
Interest Income of Bank has increased. **(IBG5)**	**0.723**	**0.718**	**0.717**	**0.824**	**0.540**
Market capitalization (Share Price) of banks has increased during Covid-19 times. **(IBG8)**	**0.741**				
Lower interest rate on FD and Lower lending rate balanced the liquidity of the Bank. **(IBG10)**	**0.763**				

Source: The authors utilized Smart PLS software to perform their own calculations.

All four components displayed Cronbach's alpha, composite reliability, and Rho A scores exceeding 0.7, as reported in Table 2 (Henseler et al., 2015), affirming the questionnaire's reliability according to these models. Additionally, the questionnaire satisfies the AVE criterion, with all AVE values surpassing 0.5, as evidenced in Table 2. Therefore, it can be inferred that the questionnaire meets all the reliability criteria.

DISCRIMINANT VALIDITY

Using discriminant validity, it was determined whether the variables under examination were distinct. Using discriminant variables, one can determine if seemingly unrelated measurements are, in fact, unrelated.

FORNELL-LARCKER CRITERION

The Fornell-Larcker criterion, introduced by Fornell and Larcker in 1981, is a method employed to evaluate the connection between the square root of the average variance extracted for each construct and its correlations with all other constructs in a specific model. This methodology is often known as the degree-to-shared variance approach.

Table 3: Fornell-Larcker Criterion

Constructs	Policies and Measures	Online Facilities	Offline Facilities	Bank's Growth
Policies and Measures	0.823	-	-	-
Online Facilities	0.457	0.834	-	-
Offline Facilities	0.503	0.535	0.811	-
Bank's Growth	0.468	0.420	0.494	0.735

Source: The authors utilized Smart PLS software to perform their own calculations.

As indicated in Table 3, the Fornell-Larcker criteria indicate that the study possesses discriminant validity, as the square root of the average variance exceeds the cross-correlation components.

HETEROTRAIT-MONOTRAIT RATIO (HTMT)

The HTMT, or Heterotrait-Monotrait Ratio of Correlations, is a statistical metric that assesses the average correlation between indicators across distinct constructs compared to the average correlation between indicators within the same construct. This measure facilitates the comparison of correlations across constructs, offering insights into the discriminant validity of the measurement model. The recommended threshold for HTMT, as proposed by Henseler et al. (2015), is set at a maximum value of 0.85

Table 4: Heterotrait-Monotrait Ratio (HTMT)

Constructs	Policies and Measures	Online Facilities	Offline Facilities	Bank's Growth
Policies and Measures	-	-	-	-
Online Facilities	**0.529**	-	-	-
Offline Facilities	**0.572**	**0.610**	-	-
Bank's Growth	**0.591**	**0.531**	**0.603**	-

Source: The authors utilized Smart PLS software to perform their own calculations.

Table 4 illustrates that all values are below 0.85, signifying that the construct demonstrates discriminant validity when assessed through HTMT.

R SQUARE (QUALITY CRITERIA)

R-square is a method for calculating the relationship between a dependent variable's movements and those of an independent variable.

Table 5: R Square

	R Square	R Square Adjusted
Online Facilities	0.209	0.207
Offline Facilities	0.253	0.251
Bank's Growth	0.324	0.319

Source: The authors utilized Smart PLS software to perform their own calculations.

Table 5 provides further detail about R square. Bank's growth is 32.40% dependent on the bank's policies and measures; online facilities are 20.90% dependent on the bank's policies and measures, whereas offline facilities are 25.30% dependent on the policies and measures issued by the banks covered by the study.

MODEL FIT

A more thorough evaluation of model fit was conducted using SRMR. The calculations for model fit are presented in Table 6. The SRMR is 0.067, signifying a well-fitted model, as the threshold for an acceptable model fit is less than 0.08. Additionally, the NFI is 0.854, indicating that the model is also fit according to the NFI criterion (Henseler et al., 2015).

Table 6: Model Fit

	SaturatedModel	Estimated Model
SRMR	0.067	0.102
d_ULS	0.767	1.778
d_G	0.228	0.260
Chi-Square	551.607	600.024
NFI	0.854	0.841

Source: The authors utilized Smart PLS software to perform their own calculations.

STRUCTURAL EQUATION MODEL

A bootstrapping method with 5000 bootstraps and a regression model were used to test the hypothesis and see how well the model could predict the future.

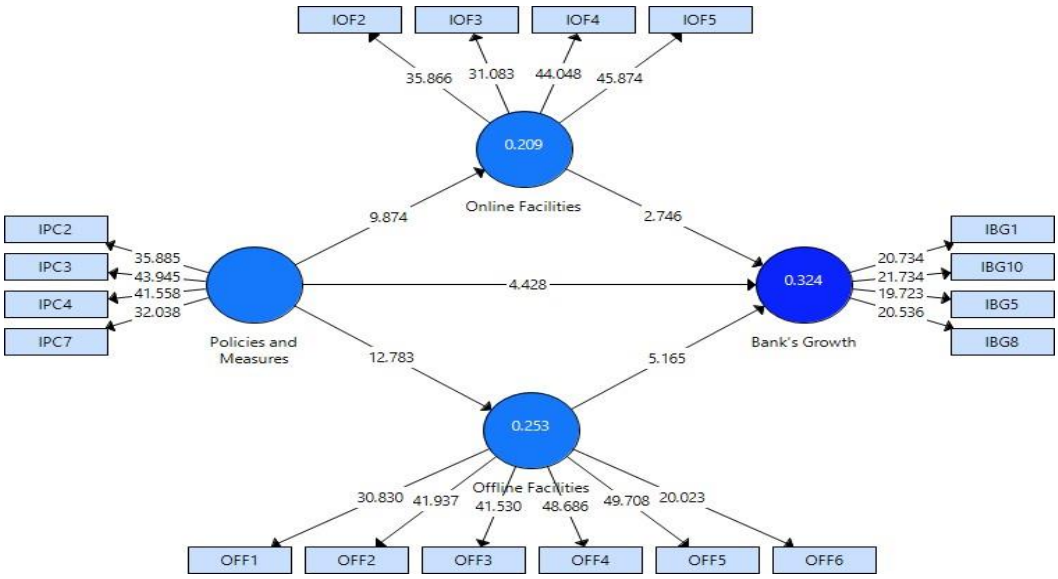

Figure 4: Structural Equation model
Source: The authors utilized Smart PLS software to perform their own calculations.

The T test and the P-value are used to represent the outcomes of the hypothesis. T-values greater than 1.96 indicate statistical significance, whereas p-values less than 0.05 indicate non-statistical significance. Figure 4 and Table 7 illustrate the findings of the analysis. It can be observed that H1, H2, H3, H4, and H5 are rejected because they fail to accept the null hypothesis. From the perspective of customers, it can be said that policies and measures issued by banks, online facilities provided by banks, and offline facilities provided by banks had a significant impact on the bank's growth during the COVID-19 period.

Table 7: Results of Hypotheses Testing

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Supported
H1: There is no significant impact of Policies and Measures on the Online Facilities provided by the banks during Covid-19 period.	0.457	0.458	0.047	9.874	**0.000**	**No**
H2: There is no significant impact of Policies and Measures on the Offline Facilities provided by the banks during Covid-19 period.	0.503	0.505	0.040	12.783	**0.000**	**No**
H3: There is no significant impact of Policies and Measures on the Bank's growth during Covid-19 period.	0.256	0.258	0.057	4.428	**0.000**	**No**
H4: There is no significant impact of Online facilities provided by the banks on the Bank's growth during Covid-19 period.	0.151	0.151	0.055	2.746	**0.006**	**No**
H5: There is no significant impact of Offline facilities provided by the banks on the Bank's growth during Covid-19 period.	0.284	0.286	0.056	5.165	**0.000**	**No**

Source: The authors utilized Smart PLS software to perform their own calculations.

DIRECT AND INDIRECT EFFECT

The direct and indirect effects of policies and measures, online and offline facilities, and bank growth during COVID-19 on each other are also calculated by research using Smart PLS. Table 8 concludes that the bank's online facilities have a 50.30% direct effect on policies and measures. bank's offline facilities have a 64.50% direct effect on bank growth. The bank's growth has a total effect of 46.80% on policies and measures, which consists of a 25.6% direct effect and a 21.2% indirect effect. Bank growth has a 15.1% direct effect on online facilities and a 28.40% direct effect on offline facilities. As a result, offline facilities had the greatest impact (50.30%) on the policies and initiatives issued by banks and the RBI.

Table 8: Direct and Indirect effect

Dependent Variables		**Independent Variables**		
		Policies and Measures	**Online Facilities**	**Offline Facilities**
Online Facilities	**DE**	0.457		
	IE	-		
	TE	**0.457**		
Offline Facilities	**DE**	0.503		
	IE	-		
	TE	**0.503**		
Bank's Growth	**DE**	0.256	0.151	0.284
	IE	0.212	-	-
	TE	**0.468**	**0.151**	**0.284**

Source: The authors utilized Smart PLS software to perform their own calculations.

Note: DE: Direct Effects, IE: Indirect Effects and TE: Total Effects

MULTIGROUP ANALYSIS

Furthermore, a multi-group analysis of Smart PLS was used to determine whether customers of public sector banks and private sector banks had significant differences in their perceptions of the impact of COVID-19 on the financial performance of their respective banks. The results of the multi-group analysis (*Multigroup Analysis (MGA)—SmartPLS*, n.d.) were derived from the bootstrapping of data received from banking customers. Multi-group analysis is offered to three groups, namely, customers who have bank accounts exclusively with the public sector banks, customers who have bank accounts only with private sector banks, and customers who have bank accounts with both banks.

Table 9: Multi group analysis

Customers Perception									
Hypotheses	**Path Coefficients -diff Public &Both**	**Path Coefficients-diff Public - Private**	**Path Coefficients-diff Both-Private**	**p-Value original 1-tailed Public - Both**	**p-Value original 1-tailed Public - Private**	**p-Value original 1-tailed Both-Private**	**p-Value new Public - Both**	**p-Value new B Public - Private Bank**	**p-Value new Both - Private Bank**
Offline Facilities -> Bank's Growth	0.103	-0.277	-0.380	0.214	0.959	0.983	0.427	0.081	0.033
Online Facilities -> Bank's Growth	-0.145	-0.050	0.095	0.873	0.630	0.301	0.254	0.740	0.601
Policies and Measures -> Bank's Growth	-0.002	0.269	0.271	0.508	0.035	0.065	0.984	0.069	0.129
Policies and Measures -> Offline Facilities	-0.107	-0.223	-0.116	0.892	0.981	0.861	0.217	0.039	0.278
Policies and Measures -> Online Facilities	0.052	-0.129	-0.181	0.314	0.873	0.913	0.628	0.254	0.173

Source: The authors utilized Smart PLS software to perform their own calculations.

Customers' perceptions of having an account in a public sector and private sector bank can be compared in Table 9. P-values are used to assess comparative perception. Customers having only private accounts were compared with customers having only bank accounts in public sector banks, and it was observed that both groups perceived the same about all indicators except the impact of policies and measures on offline facilities, where the P-value was 0.039, thus making it significant. Further, customers having accounts only in public sector banks and customers having accounts in both banks have no different perceptions of the bank's growth during COVID-19. When customers with accounts only in the private sector were compared to those with accounts in both banks, it was discovered that both groups perceived the impact of offline facilities on the bank's growth differently, with a P-value of 0.033. Both groups perceived the same impact of policies and measures issued by the RBI and online facilities on the bank's growth.

CONCLUSION

Consumer behavior worldwide has been radically impacted by COVID-19. Banks are uncertain about the longevity of these changes and whether they will persist once the pandemic subsides. From the perspective of the customer, researchers have evaluated the impact of policies and measures, including online and offline facilities provided by the bank, on bank growth in Madhya Pradesh. Customers strongly believe that policies and measures, both online and offline, have had a significant impact on the bank's growth, thus rejecting all the hypotheses.

Further Customers with only private accounts and public-sector bank customers had the same perceptions of all indicators except the influence of policies and measures on offline facilities. Customers with accounts only in public sector banks and customers with accounts in both banks perceive the bank's growth during COVID-19 similarly.

RECOMMENDATION

Public sector and private sector banks both need to improve customer satisfaction, as COVID-19 had a substantial impact on customer perceptions. Banks must attempt to convince customers that the financial system will continue to operate regularly following COVID-19. Customers of both banks perceive that COVID-19 has significantly impacted the offline facilities of both banks; thus, banks must make an attempt to ensure that all offline facilities are made available to them.

LIMITATION AND FURTHER STUDY

The study concentrated solely on the banking industry and covered only the state of Madhya Pradesh, India. Respondents shared their perspectives, experiences, and information about their respective banks' operations. Only customers of public and private sector banks in the Indian state of Madhya Pradesh were questioned. When the sample size or geographic distribution of respondents is altered, the study's findings may vary.

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