

An Innovative ATM Cardless Withdrawal Service: Need of Today for Better Tomorrow

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Abstract

The current state of the global environment is characterized by an increasing predominance of interactions and transactions facilitated by technological advancements. The recent period has witnessed a substantial increase in customers' propensity to embrace self-service technologies. Hence, the objective of this study is to investigate the impact of service quality provided by self-service technologies, specifically ATM-Cardless Withdrawal, on customer satisfaction and loyalty in the retail banking sector in India and to examine the moderating influence of social distance on the relationship between customer satisfaction and customer loyalty. The two-stage partial least squares structural equation modeling (PLS-SEM) approach was used to assess the conceptual framework and proposed relationships. Within the realm of retail banking, there exists a dearth of empirical inquiry that explores the potential moderating impact of individuals' attitudes towards social distancing on the association between customer satisfaction and service quality, particularly in the post-COVID-19 era.

Keywords: Cardless withdrawal, self-service technology, service quality, customer satisfaction, customer loyalty, and attitude towards social distance.

Impact of ATM-Cardless Withdrawal Service Quality on Customer Satisfaction

Abstract

This study is an attempt to investigate the impact of self-service technology (ATM-Cardless Withdrawal) service quality on customer satisfaction, and customer loyalty in the Indian retail banking industry and to study the moderating effect of attitude towards social distance on customer satisfaction and customer loyalty. A two-stage partial least squares structural equation modeling (PLS-SEM) method was applied to empirically evaluate the conceived model and proposed linkages. The study's findings indicated that attitude towards social distance had moderating impact on the relationship between self-service technology (ATM-Cardless Withdrawal) service quality and customer loyalty and satisfaction in Indian retail banking services.

Keywords- Cardless Withdrawal, Self-Service Technology, Service Quality, Customer Satisfaction, Customer Loyalty, Attitude towards Social Distance

1. Introduction

The goal of banks is to get a competitive edge that will increase their market share. A few of the technology options in the banking industry include ATMs, contact centers, mobile applications for banking, and the Internet for online banking called net banking (Kahlilov *et al.*, 2012). The banking sector now places a high priority on regulatory and technological reforms in its quest for higher service quality. Abdullah *et al.*, (2010) claim that the majority of financial institutions have realigned their current business processes to incorporate new technologies due to the rising demand for excellent quality service delivered through enhanced service offerings. Technology innovation is a key component of efficient and effective banking systems since it enables businesses to sell their goods more effectively and efficiently (Shin & Perdue, 2019). Following the COVID-19 outbreaks, minimizing unnecessary client-staff interaction has also been the norm for numerous service industries (Maras, 2020). Self-service technology has been proven to improve customer satisfaction and loyalty (Collier & Barnes, 2015). The majority of the study to date has been devoted to identifying the qualities or elements that customers must have when considering adopting such alternatives, or, to put it another way, investigating the variables

that affect consumers' decisions about the usage of self-service devices (Dabholkar, Bobbitt, & Lee, 2003). Yilmaz *et al.*, (2018), most of the studies have acknowledged how the service quality evaluation process affects customer satisfaction and loyalty, and the majority have found evidence that service quality plays a substantial role in predicting customer contentment. However, no study hasn't been done to date on the potential moderating effects of attitude towards social distance on the relationship between customer satisfaction and service quality in the retail banking industry after the Covid-19 pandemic. Additionally, having an understanding of the latter would be very helpful in helping banks create appropriate quality improvement efforts as part of their effort to please and keep their customers. Therefore, this study is an attempt to investigate the impact of self-service technology (ATM- Cardless Withdrawal) service quality on customer satisfaction, and customer loyalty in the Indian retail banking industry and also to study the moderating effect of attitude towards social distance on customer satisfaction and customer loyalty.

2. Theoretical Framework

2.1 Retail Banking in India (Cardless Withdrawal)

To enhance India's economic growth, the Ministry of Finance and the Reserve Bank of India collaborated to expand the banking network, particularly among the poor and in rural regions. The implementation of cloud-based operations has increased bank responsiveness. Because consumers may now handle their accounts remotely, the introduction of core banking products has increased transaction volumes. To boost their business practices while boosting customer satisfaction, nearly every one of the public and private sector banks use data analytics and automation technologies. The retail banking industry is driven by many government programs such as increasing the number of banks' public service units in rural regions, the Pradhan Mantri Jan Dhan Yojana program, and free credit and debit cards with minimal transaction limitations. According to Market Research.com, Yes Bank Limited, Axis Bank Limited, Bandhan Bank Limited, State Bank of India Limited, and HDFC Bank Limited are among the industry's major companies. Indian Banks have made innovations in self-service technology (Kiosks) so that customer can personalize their debit card issuance, this can be done by new as well as by existing customers here, personalization means debit cards with photographs affixed to them. Customers can have personalized checkbook issuance and also Indian banks have provided a facility of video KYC process for their new users onboarding and for the existing customers Re -KYC when KYC is due. Due to advancements in self-service technology, the same kiosk can be used for cash deposits also. One of the major choices taken by the RBI's Monetary Policy Committee (MPC) was the proposal to make a cardless cash withdrawal option available at all ATMs, independent of banks, using the Unified Payment Interface (UPI). Currently, a small number of banks, including ICICI Bank, Kotak Mahindra Bank, HDFC Bank, and SBI, permit their customers to use their ATMs to make cash withdrawals without a card. This provision was implemented in the aftermath of the Covid-19 outbreak. With cardless ATMs, customers may use the bank app on their smartphone to conduct ATM transactions. If they forget their debit card or would prefer to minimize the touch of their bank ATM screen less frequently, this method to access money can be proved convenient to their respective banking customers.

2.2 Self-Service Technology Service Quality

Events like the COVID-19 outbreak and the Russia-Ukraine war, which are causing economic instability in the world, underline the significance of making informed choices almost immediately. Businesses realized the importance of flexibility in the face of rapidly changing economic conditions and technological advancement globally. Customers chose contactless payments during COVID-19. With the rapid advancement of self-service technology, the operational paradigm has undergone significant changes. Self-service kiosks and quick-service devices are expected to be in high demand as a result of shifting customer behavior, the development of autonomous technology, and the proliferation of AI-powered products. With this improvement, self-service machine operators could be able to create intelligent, digitally-based workplaces that employ fewer people. Market Research Future (MRFR) predicts that the market for "Self-Service Technology Market" information by Machine Type, Interface, Application, and Region - Forecast to 2030" will develop at a compound annual growth rate of 11.27% and reach USD 72.51 billion by 2030. According to the Bank Administration Institute (BAI), 61% of clients want their bank services to be digital by 2024. Most research in the literature has examined or investigated the notion of service quality of SST in various sectors and nations. There have been various studies conducted to assess the quality of SST services. It is crucial to note that SSTQUAL shares many commonalities with other scales. Many dimensions in earlier scales are quite close and seem like SSTQUAL. It is crucial to remember, however, that these scales are typically centered on e-services. Dabholkar (1996) initially identified the importance of regular service quality measures for SST which are- speed of delivery, ease of use, reliability, enjoyment, and control. The Dabholkar (1996) SST quality model is used in this investigation. As a result, SSTQUAL has widely been utilized as a basic model for evaluating other forms of SSTs, such as self-service kiosks (ATMs) used in the banking industry (Radomir

& Nistor, 2012).

2.3 Self-Service Technology Service Quality and Customer Satisfaction

Customer satisfaction is defined in marketing terms as a gauge of how well a company's goods or services live up to consumers' expectations. This is a crucial element in ensuring a company succeeds since client happiness will decide the organization's future market expansion. The degree of product quality, the caliber of the services rendered, the place of purchase, and the cost of the good or service are used to gauge customer satisfaction. When ATMs were first introduced to the banking business, banks believed that they would be able to decrease needless traffic in the banking hall, provide clients with rapid access to their accounts, and, to a certain extent, make life more convenient. Similarly, a Self-Service technology must have a sufficient number of machines, a safe location for the machines, and a user-friendly system based on fast speed, few mistakes, high uptime, cash backup, cheap cost, and with a variety of services covered (Dillijonas *et al.*, 2009).

2.4 Customer Satisfaction and Customer Loyalty

It has been demonstrated that customer loyalty is a key factor in determining the long-term financial performance of commercial organizations, and comparable findings have been made about banks in particular (Belás and Gabcová, 2016). As increasing customer satisfaction has been proven to have a significant impact on customer loyalty, retail banks concentrate on developing tactics to do so (Anderson and Fornell, 2000). The S-O-R hypothesis predicts that customer satisfaction (organism) would directly influence customer loyalty (response) and serve as a mediator between service quality and customer loyalty, therefore proposed conceptual framework is shown in Figure-1. Research has experimentally demonstrated that, by the S-O-R theory and Bagozzi's coping paradigm, customer loyalty is the behavioral reaction to customer pleasure as an emotional condition. Across cultures and sectors, the relationship between customer pleasure and customer loyalty has been thoroughly researched and scientifically evaluated (Ladhari, 2009).

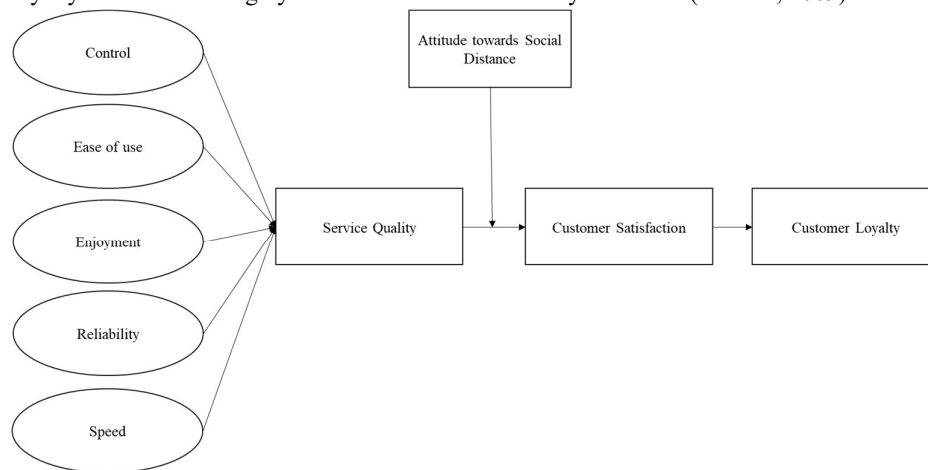


Figure- 1 Conceptual Framework

2.5 Moderating Effect of Attitude towards Social Distance

Everything has altered as a result of the Covid-19 epidemic, including how individuals obtain information, interact, and even make purchases. Due to these developments, organizations must reconsider their approach to reaching out to customers and develop fresh strategies for fostering loyalty. Along with this, workplace culture has undergone a profound transformation. Working from 9 to 5 is no longer the norm; remote and hybrid working have taken their place. Companies have been compelled to reevaluate how teams may collaborate and communicate to promote economic success as a result of this significant change. A lack of public health infrastructure, a large population, and extensive geographic areas increased the impact of the COVID-19 pandemic on low-income and low-middle-income nations like India. Governments and individuals have both modified their behaviors in response to the current COVID-19 pandemic in an effort to stop the virus' transmission or lower its severity. According to Buchan et al. (2006), social distance is a gauge of how closely individuals are related during an engagement. In order to reduce or slow down the pace and breadth of disease transmission in a community, social distancing is non-pharmaceutical prevention and control of infections technique used to avoid/decrease contact between people who are infected with a disease-causing pathogen and those who are not. This finally results in a decrease in the disease's spread, morbidity, and death (MOHFW, 2020). Open-air dining is preferable whenever possible and physical separation between tables must be at least one metre (MOHFW, 2020). Many major

businesses, including banking, the retail sector, traveling, the hospitality industry, institutions of higher learning, and others have begun to operate remotely or do tasks online or digitally as a result of these warnings. However, some people are unable to access the Internet or their online banking account owing to a lack of technological resources. For access to financial services, they must go to banks for cash withdrawals or visit nearby ATMs as all people were unable to make payments digitally. People were compelled to remain in their homes during the COVID-19 outbreak in order to prevent close contact with others. The lockdown was declared in India, and residents were prohibited from leaving their residences. People took advantage of the loosening of the limitations by going shopping and using vital services including banking, hospitals, couriers, and insurance. Larger public segments, however, did not heed the warnings and chose to ignore them (Prosser et al., 2020). The explanation makes it obvious that social segregation practices during a pandemic may result in two main user categories: those who favour them and those who reject them. Based on the discussion above, we put forward the following hypotheses:

H₁: Cardless Withdrawal service quality has a significant impact on customer satisfaction in Indian retail banking services.

H₂: Customer satisfaction has a significant impact on customer loyalty in Indian retail banking services.

H_{3a}: The association between Cardless Withdrawal service quality and customer satisfaction is strongly moderated by attitude towards social distance in Indian retail banking services.

H_{3b}: The association between customer satisfaction and customer loyalty is strongly moderated by attitude towards social distance in Indian retail banking services.

3. Methodology and Analysis

3.1 Data Collection Process

Using the survey design method, we gathered primary data (Saunders *et al.*, 2016). Direct distribution of the surveys to Indian bank clients. Due to confidentiality concerns, a sample frame was unavailable, therefore we employed a non-probability sampling method instead-the judgmental sampling method (Teeroovengadam and Nunkoo, 2018). Only those who had a bank account and had frequently used bank services over the previous two years were asked to answer the survey, ensuring that they at least had the bare minimal familiarity with bank services. The respondents were given the assurance that their comments would be entirely anonymous and confidential to reduce social desirability bias in their responses (Podsakoff *et al.*, 2003).

3.2 Measurement Scales

Indicators using a seven-point Likert-type answer structure, ranging from "strongly disagree" to "strongly agree," were used to measure all categories. Instead of using the more popular five-point response format, a seven-point response format was employed for all indicators to increase responder specificity (Shamdasani *et al.*, 2008). All of the construct measures used in this study were drawn from scales already validated. An established, two-item scale created by Dabholkar (1996) was used to measure the speed of service. Shamdasani *et al.*, (2008), already applied this scale in their research. The ease of use was assessed using a recognized scale developed by Dabholkar (1996) that appeared as a four-item scale. Shamdasani *et al.*, (2008) had previously used this scale in research. A well-known scale developed by Olorunniwo *et al.*, (2006) appeared as a two-item scale and was previously applied in the study to test reliability. The study of Park, S *et al.*, (2021) employed a scale previously developed by Dabholkar & Bagozzi, (2002) that expresses enjoyment as a three-item scale to measure enjoyment. A recognized scale created by Dabholkar (1996) that manifested as a four-item scale was used to test control; Shamdasani *et al.*, (2008) had previously applied this scale in research. An existing three-item scale created by Wu (2011) was used to assess customer satisfaction. Park, S *et al.*, (2021) study has previously employed this scale. In a recent study by Park S *et al.*, (2021) customer loyalty was assessed using a well-established scale developed by Caruana (2002) that was expressed as a four-item scale. Also, a variety of statistical and methodological techniques were applied to account for the common method variance. To begin with, the questionnaire only had 22 items. Hence, it was brief enough to prevent fatigue and confusion, which might impair respondents' ability to properly answer the questions. Second, the wording used in the items was clear, concise, and deliberate. Third, an expert assessment was conducted to confirm the suitability of the research instruments (Podsakoff *et al.*, 2003). To further guarantee the presence of objective answers, the inner VIF is also evaluated. If all the VIFs in the inner model are less than equal to 3.3, the model can be safely considered to be free of CMB (Kock, N, 2015). Therefore, in our study, 2.512 is the maximum inner VIF value which is less than 3.3.

3.3 Tool for Data Analysis

A two-stage partial least squares structural equation modeling (PLS-SEM) method was applied to empirically evaluate the conceived model and proposed linkages. The PLS-SEM evaluations for the measurement model, structural model, postulated association, and multigroup analysis (MGA) for attitude towards social distance was performed using the Smart

PLS v.4.0.8.8 software. Because of its better prediction powers, multidimensional (i.e., formative higher-order) evaluations, ability to handle non-normal distributions, and ability to overcome normalcy assumptions, PLS-SEM has gained widespread acceptance as the most favored SEM approach for exploratory research (Hair *et al.*, 2016). Because of the unique features of this inquiry, the nature of the survey data, and the smaller samples chosen for the targeted bank clients, PLS-SEM was thus the appropriate method for the current study (Zaman, 2020). The bootstrapping approach with 5000-subsamples was used to establish path coefficients and their significance level through corresponding values by PLS-SEM suggested recommendations for two-stage evaluations (Hair *et al.*, 2016). PLS-SEM was effectively used in studies by Avkiran and Ringle (2018) that focused on the banking sector.

3.4 Sample Profile

An a priori power analysis was carried out to determine the minimal sample size needed for the research model. According to Faul *et al.*, (2007), the recommended sample size for each nation was assessed using the popular G*Power program. The minimum sample size to test the hypothesized relationships was found to be 218 respondents when taking into account the higher-order formative construct (i.e., Service Quality) as a predictor in the model, as well as the desired significance level ($p \leq 0.05$), low effect size ($f^2 \leq 0.05$), and statistical power of 0.95. (Hameed *et al.*, 2021). Furthermore, according to the suggested sample size for the structural equation model (Hair *et al.*, 2016), a total number of 345 completed survey forms by bank customers were finally used for the PLS-SEM assessments, and their information is shown in Table-1.

Table-1 Demographic Characteristics of the Sample (n=345)

Characteristics	Frequency (n)	Percentage (%)
Gender		
Male	245	71.01
Female	100	28.98
Age group		
18-29	90	26.09
30-39	45	13.05
40-49	77	22.31
50 and above	133	38.55
Level of education		
High school	112	32.46
Below graduate level	136	39.42
Graduate level	50	14.49
Post-graduate level	47	13.63
Employment status		
Employed (or self-employed)	178	51.60
Unemployed	118	34.20
Retired	49	14.20
Income level		
Below Rs 20000	125	36.23
Rs 20000-Rs 40000	69	20.00
Rs40001-Rs 60000	65	18.84
Rs 60001-Rs 80000	20	5.80
Rs 80001-Rs 100000	40	11.59
Above Rs 100000	26	7.54

3.5 Evaluation of Measurement Model and Structural Model

The structure of this study incorporates two reflecting constructs, customer satisfaction, and loyalty, as well as one formative construct, service quality. Five reflective dimensions comprise an overall service quality construct: control, ease of use, enjoyment, reliability, and speed of service. As a result, the second-order reflective-formative construct in the model is service quality. The current study's second-order constructs were established using a two-step technique, with the first stage entailing an evaluation of the measurement model to do so (Ali *et al.*, 2018). Therefore, we assessed 7 reflective first-order constructs in the first stage (i.e., control, ease of use, enjoyment, reliability, speed of service, customer satisfaction, and customer loyalty). Checking the validity and reliability of the reflective measurement models is necessary for evaluation (Ali *et al.*, 2018). The outer loading of each item on its related construct should be larger than 0.7 to evaluate each item's reliability (Hair *et al.*, 2017). Table 2 reveals that the majority of the items had outer loadings greater than 0.7. It is important to first cross-check with the average variance extracted (AVE) and composite reliability (CR) for items with loadings of 0.5-0.7. If CR and AVE satisfy the requirement, these items may be kept. Internal consistency is established when the CR and rho-A criterion are higher than 0.7, which is used to measure construct reliability (Hair *et al.*, 17). Table 2 demonstrates that all first-order constructions had CR and rho-A values higher than 0.7, establishing internal consistency for all included reflective constructs. AVE may be used to evaluate the convergent validity of the reflective concept; however, for the AVE to be deemed acceptable, it must be more than 0.5. (Hair *et al.*, 2017). According

to Table 2, all reflective first-order structures had an AVE greater than 0.5. All constructs may be kept in the framework since they all have loadings between 0.5 and 0.7, which are above the CR and AVE thresholds. To determine how one concept differs from other constructs in the model, discriminant validity is used (Hair *et al.*, 2017). Several criteria have been suggested for evaluating discriminant validity. The Heterotrait-Monotrait (HTMT) ratio is the most conservative criterion for evaluating the discriminant validity of reflective constructs, at least in terms of conventional evaluation techniques like the Fornell-Larcker criterion (Voorhees *et al.*, 2016). Hence, in this research, the HTMT was employed to evaluate discriminant validity. Each construct's HTMT value must be less than 0.90 to prove discriminant validity (Henseler *et al.*, 2015). The HTMT values are less than 0.90 for the data displayed in Tables 3 and 4. Using the first stage's scores for the corresponding dimensions, we next established the second-order formative service quality construct. Therefore, control, ease of use, enjoyment, reliability, and speed of service established service quality formatively in the second stage. In conclusion, two reflecting constructs (i.e., customer satisfaction and customer loyalty) and one formative construct are included in the framework for this study's second stage (i.e., service quality). The findings of this stage's reliability, convergent validity, and discriminant validity checks for each of the reflective constructs supported the reflective measurement model's second stage's acceptable reliability and validity. Unfortunately, we are unable to apply the same standards as in the first stage to evaluate the formative structures. Finding the multi-collinearity between the items using the variance inflation factor (VIF) is the first and most crucial component in evaluating a formative concept (Hair *et al.*, 2017). Each item's VIF should be less than 5. (Hair *et al.*, 2017). The VIFs for each service quality item, as shown in Table 5, were lower than 5. Also, we should consider the objects' outer weight, which should be considered, about the reflective construct. The literature advises examining their outer loadings for formative construct items with insignificant outer weights. If the outer loading is considerable, the items can be kept; if the researcher chooses to keep the items, items that don't load considerably can also be kept (Hair *et al.*, 2017). The outside weights/loadings of every item are crucial in our investigation. Thus, we decide to keep the items as shown in Figure-2. In the next step for the PLS evaluation of the structural model, the coefficient of determination R^2 values (variance explained) were used to assess the model's prediction accuracy. Table 6 shows that the two endogenous variables have significant R^2 values (Customer Satisfaction = 0.281, Customer Loyalty = 0.438). This finding indicates that service quality (ATM-Cardless Withdrawal) explains 28.10% of customer satisfaction and 43.80% of customer loyalty.

Table- 2 Items Outer Loadings and Construct Reliability & Validity

Constructs	Outer Loadings	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Customer Loyalty		0.874	0.897	0.923	0.800
cl1	0.886				
cl2	0.943				
cl3	0.851				
Control		0.892	0.894	0.949	0.902
con1	0.952				
con2	0.947				
Customer Satisfaction		0.781	0.801	0.858	0.603
cs1	0.696				
cs2	0.823				
cs3	0.758				
cs4	0.823				
Ease of Use		0.852	0.875	0.899	0.690
ease1	0.813				
ease2	0.865				

HTMT Criterion Construct

	Customer Loyalty	Control	Customer Satisfaction	Ease of Use	Enjoyment	Reliability	Speed
Customer Loyalty							
Control	0.189						
Customer Satisfaction	0.776	0.260					
Ease of Use	0.242	0.824	0.380				
Enjoyment	0.671	0.462	0.584	0.510			
Reliability	0.674	0.506	0.647	0.643	0.733		
Speed	0.469	0.669	0.447	0.825	0.679	0.665	
ease3	0.788	0.785	0.797	0.874	0.698	0.774	0.809
ease4	0.856						
Enjoyment							
enj1	0.838						
enj2	0.812	0.710	0.719	0.873	0.774	0.809	0.899
enj3	0.855						
Reliability							
reliability1	0.897	0.766	0.790	0.894	0.809	0.899	0.899
reliability2	0.862						
Speed		0.766	0.790	0.894	0.809	0.899	0.899
speed1	0.921						
speed2	0.877						

Table-3 Discriminant Validity

Table-4 Fornell Larcker Criterion

	Customer Loyalty	Control	Customer Satisfaction	Ease of Use	Enjoyment	Reliability	Speed
Customer Loyalty	0.894						
Control	0.166	0.950					
Customer Satisfaction	0.662	0.224	0.777				
Ease of Use	0.223	0.712	0.320	0.831			
Enjoyment	0.556	0.392	0.465	0.440	0.835		
Reliability	0.530	0.398	0.496	0.517	0.698	0.880	
Speed	0.380	0.561	0.346	0.684	0.542	0.492	0.899

Concerning the effect sizes f^2 of the structural model relationship, which analyses the influence of exogenous variables on endogenous latent variables. Cohen (1988) defines small, medium, and large effect sizes as f^2 values of 0.02, 0.15, and 0.35, respectively. As a consequence, the service quality has a large effect size of 0.390 on customer satisfaction, the customer satisfaction has a 0.781 large effect size on customer loyalty.

Furthermore, the blindfolding method was used to examine the cross-validated redundancy of Stone-Geisser's Q^2 values. According to Hair et al. (2019), Q^2 values larger than zero show the structural model's predictive accuracy for that endogenous construct, whereas values greater than zero, 0.25, and 0.50 indicate small, medium, and large predictive accuracy, respectively. As a result, as shown in Table 6, the suggested framework has a medium predictive relevance for the two endogenous components (Customer Satisfaction = 0.253, Customer Loyalty = 0.277).

The bootstrapping procedure was then used with 5000 resamples to analyze the statistical significance of the path coefficients. The path coefficients for the hypothesized direct effects are shown in Table 6. Service quality (ATM-Cardless Withdrawal) has a positive impact on customer satisfaction ($\beta = 0.530$, $t = 11.502$, $p < 0.001$) supporting H1. Based on the results, customer satisfaction has a strong positive impact on customer loyalty ($\beta = 0.662$, $t = 13.550$, $p < 0.001$), This suggests that H2 is also supported. The PLS path model's standardized root mean squared residual (SRMR) value was determined to determine the overall model fit. The computed SRMR value for the PLS model (SRMR = 0.071) likewise indicated within the allowed range based on suggestions for overall model fitness (SRMR < 0.08) (Hair et al., 2016).

Figure-2 Conceptual Model Assessment Result



Table-5 Assessment Results of the Measurement Model after Creating Second-order Constructs

Construct/ Associated items	Type of Construct	t-value	VIF	p-value
Customer Loyalty	Reflective			
cl1		47.925	2.682	0.000
cl2		163.907	3.459	0.000
cl3		33.825	2.023	0.000
Customer Satisfaction	Reflective			
cs1		15.230	1.492	0.000
cs2		34.336	1.883	0.000
cs3		24.368	1.496	0.000
cs4		39.374	1.592	0.000
Service Quality	Formative			
control		4.922	2.087	0.000
ease of use		7.434	2.850	0.000
enjoyment		18.803	2.197	0.000
reliability		26.951	2.188	0.000
speed		8.980	2.197	0.000

Table-6 Structural Model Assessment

	PLS CRITERIA					
	R-square	R-square adjusted	Q ² predict	F-square		
				Service Quality	Customer Loyalty	Customer Satisfaction
Service Quality						0.390
Customer Loyalty	0.438	0.437	0.277			
Customer Satisfaction	0.281	0.279	0.253		0.781	

Hypothesized Path

	β	T statistics	P values	Result
SERVICE QUALITY -> cs	0.530	11.502	0.000	Supported
cs -> cl	0.662	13.550	0.000	Supported

3.6 Multigroup Analysis

Henseler *et al.*, (2016) propose the measurement invariance of composites (MICOM) technique to evaluate measurement invariance using PLS-SEM as a composite model. The MICOM method consists of three steps: (a) test configuration invariance, (b) test composition invariance, and (c) test mean and variance equality. Passing all three steps means that a full inequality test can be performed for both groups while passing only the first two steps indicates that only partial inequality testing can be performed for both groups. For MGA purposes we only need to prove a partial measure of inequality. The findings of the MICOM assessment for attitude towards social distance are shown in Table 7, which also demonstrates the development of partial measurement variation. The establishment of complete measurement invariance for the groups is supported by Step 3. Hence, MGA may be used to compare and analyze the PLS-SEM results shown in Table 8 for both groups' attitudes towards social distance. The hypotheses in this study compared the variances in predictions between the two groups. To compare group-specific bootstraps, the estimation of each bootstrap group by MGA was employed. Consequently, Henseler's bootstrap-based MGA (Henseler *et al.*, 2009) and the permutation test (Chin & Dibbern, 2010) were used as two non-parametric approaches. An indication of a 5% level of significant differences in path coefficients between the two groups of attitudes towards social distance is a p-value of differences between path coefficients below 0.05 or more than 0.95 (Henseler *et al.*, 2016). The permutation test likewise yields a p-value, but the differences are only significant at the 5% level if the p-value is less than 0.05. The outcomes of Henseler's MGA are shown in Table 8 using both the permutation approach and Henseler's MGA.

Table- 7 Results of Invariance Measurement Testing Using Permutation

Moderating Variable	Construct	Configural Invariance (Same Algorithms For)	Compositional Invariance Correlation n=1		Partial Measurement Invariance Established	Equal Mean Assessment			Equal Variance Assessment			Full Invariance Established
			CI	Confidence Interval		Mean Differences	Confidence Interval	Equal	Variance Differences	Confidence Interval	Equal	

		Both Gro up)										
Attit ude towa rds socia l dista nce	Service Quality	YES	0. 8 5 1	[0.77 3, 1.000]	YES	0.04 2	[- 0.216, 0.217]	Y E S	- 0.02 8	[- 0.281, 0.317]	Y E S	YES
	Customer Loyalty	YES	0. 9 9 9	[0.99 9, 1.000]	YES	- 0.02 7	[- 0.215, 0.215]	Y E S	0.73 9	[- 0.326, 0.462]	N o	No
	Customer Satisfacti on	YES	0. 9 9 5	[0.99 5, 1.000]	YES	- 0.12 5	[- 0.218, 0.210]	Y E S	0.49 3	[- 0.279, 0.331]	N o	No

Table- 8 Result of the Nested Model Comparison between Attitude towards Social Distance

From Table 8, we can find that there is a significant effect of social distance on the association between self-service (ATM-Cardless Withdrawal) service quality and customer satisfaction, and customer loyalty. Moreover, we can find that

	Negative Attitude (N-269)					Positive Attitude (N-76)					Difference (Negative- Positive)	Differ P val
	β	Mean	STDEV	t value	p value	β	Mean	STDEV	t value	p value		
SERVICE QUALITY -> cs	0.521	0.536	0.052	10.115	0.000	0.666	0.694	0.074	8.955	0.000	-0.145	0.03
cs -> cl	0.646	0.649	0.055	11.693	0.000	0.798	0.802	0.056	14.167	0.000	-0.152	0.05
	R square					R square					R Square Difference	Per
CI	0.418					0.637					-0.220	
Cs	0.272					0.444					-0.172	

there is a significant difference between R^2 on customer satisfaction and customer loyalty across both groups (Negative Attitude and Positive Attitude) Therefore, based on the result, we can conclude that H3a and 3b are supported.

4 Discussion

This study employs the PLS-SEM technique to investigate the potential moderating effect of attitude towards social distance on the correlation between self-service (ATM-Cardless Withdrawal) service quality dimensions (service speed, ease of use, reliability, enjoyment, and control) and customer satisfaction & loyalty in the Indian retail banking industry. Although the relationship between self-service (ATM-Cardless Withdrawal) service quality, customer satisfaction, and customer loyalty has been extensively investigated in a variety of service contexts, including the banking industry's attitude towards social distance has not been studied before in the context of the self-service (ATM-Cardless Withdrawal). As a result, the empirical findings of this study contribute significantly to the literature. This study's major contribution is to investigate the moderating effect of attitude towards social distance on the relationships between self-service technology (ATM-Cardless Withdrawal) service quality aspects and bank customer satisfaction & loyalty. Customers with a positive attitude towards social distance have a stronger relationship between self-service (ATM-Cardless Withdrawal) service quality and customer satisfaction and loyalty than customers with a negative attitude towards social distance because customers with a positive attitude towards social distance expect better service from their banks and can avoid unnecessary branch or ATM visits. As a result, if banks fail to give better or desired service to their clients, it may have an impact on their satisfaction and loyalty.

5. Conclusion

Our finding is that consumers having negative attitudes or positive attitudes towards social distance respond to self-service (ATM-Cardless Withdrawal) quality stimuli differently in the context of bank services has substantial consequences. The retail banking industry in India is very competitive, and private banks' survival has become increasingly difficult in recent years. Customer satisfaction and loyalty are critical for banks since it ensures the protection and security of their customers' hard-earned money. During the present pandemic issue, health safety has become a new component in customer satisfaction and loyalty. Therefore, customers who are concerned about their wellness and perceive a risk of contracting the virus may enjoy the customer entry screen and shows a positive attitude towards social distancing. It is suggested that banks develop distinct strategies based on the clients they are trying to reach. As the self-service technology market is expected to increase significantly in terms of revenue. The widespread adoption of self-service devices would be a major driving force in market expansion. Several research studies have reported that self-service technology has several advantages in terms of improving the consumer experience by actually engaging them with a business. ATMs and other self-service machines have become essential for convenient banking. One method bank may make switching easier for consumers is to provide a smooth, all-digital onboarding experience. It means abandoning the previous hybrid method of luring clients with a digital offer but then requiring them to finish the application procedure in person at a branch. Consumers are becoming more technologically aware; they understand that 'wet' signatures on paper forms and in-person inspections are no longer required for safe identification. Consumers do not want the annoyance of unnecessary branch visits when they know that contemporary banks have the ability and data to validate who they are remote. Challenger banks and financial services leaders will push the adoption of self-service technologies. Those that do not adjust will lose market share. At the same time, they want their digital services to provide a more human-like connection. The technological issue currently is to provide such services. The challenge for technology now is to make such services even more engaging and immersive. The goal is to make clients feel appreciated as individuals while eliminating the need to visit a branch. Smart financial institutions are concentrating on assisting and connecting with their consumers in their daily lives to compete and stay relevant in this digital everywhere world. While users will continue to seek better applications, there is also a rising trend for integrated banking, which may imply that apps may eventually become obsolete. Gartner predicts that integrated payments would reach \$141 billion by 2025. Customers may access banking services when and when they need them the most, which is almost often in a non-bank setting. Although this study has many management and theoretical implications, it is not without limits. The first drawback is that only customer satisfaction is taken into account when examining the relationship between customer loyalty and customer satisfaction. Other pertinent categories, such as corporate image, customer relationship management constructs, and perceived customer value, have already been discovered in research as mediators. Future research may take these dimensions into account when examining the moderating effects of demographic variables. In India, small finance banks are giving heavy competition to big banks therefore, their customer segment is also large and needs to be studied.

References

1. Abdullah, F., Andrew, J. V., & Ho, V. B. (2010). Identifying and validating dimensions of service quality for the banking industry in Malaysia. *Journal of Global Business and Economics*, 1(1), 79-98.
2. Ali, F., Rasoolimanesh, S. M., Sarstedt, M., Ringle, C. M., & Ryu, K. (2018). An assessment of the use of partial least squares structural equation modeling (PLS-SEM) in hospitality research. *International Journal of Contemporary Hospitality Management*, 30(1), 514-538.
3. Anderson, E.W. and Fornell, C. (2000). Foundations of the American customer satisfaction index. *Total Quality Management*, 11(7), 869-882.
4. Avkiran, N.K. and Ringle, C.M. (2018). *Partial Least Squares Structural Equation Modeling: Recent Advances in Banking and Finance*, Eds, Springer, Cham.
5. Belás, J. and Gab_cová, L. (2016). The relationship among customer satisfaction, loyalty, and financial performance of commercial banks. *E a M: Ekonomie a Management*, 19 (1), 132-147.
6. Buchan, N. R., Johnson, E. J., & Croson, R. T. A. (2006). Let's get personal: An international examination of the influence of communication, culture and social distance on other regarding preferences. *Journal of Economic Behavior & Organization*, 60(3), 373-398.
7. Caruana, A. (2002). Service loyalty: The effects of service quality and the mediating role of customer satisfaction. *European Journal of Marketing*, 36(7/8), 811-828.
8. Cohen, J. B. (1988). *Statistical power analysis for the behavioral sciences*. Lawrence Erlbaum, Hillsdale.

9. Dabholkar, P.A. (1996). Consumer evaluations of new technology-based self-service options: an investigation of alternative models of service quality. *International Journal of Research in Marketing*, 13(1), 29-51.
10. Dabholkar, P.A., Bobbitt, M.L., & Lee, E.J. (2003). Understanding consumer motivation and behavior related to self-scanning in retailing: implications for strategy and research on technology-based self-service. *International Journal of Service Industry Management*, 14(1), 5-95.
11. Dilijonas, D., Kriksciunien, D., Sakalauskas, V., & Simutis, R. 2009. Sustainability Based Service Quality Approach for Automated Teller Machine Network. *International Vilnius Conference EURO Mini Conference: Knowledge-Based Technologies and Methodologies for Strategic Decisions of Sustainable Development*, 241-246.
12. Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. Behavior Research.
13. Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). A primer on partial least squares structural equation modeling (PLSSEM). Sage publications.
14. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24.
15. Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2017), A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM), 2nd Edition, SAGE, Thousand Oaks, CA.
16. Hameed, W. U., Nisar, Q. A., & Wu, H.-C. (2021). Relationships between external knowledge, internal innovation, firms' open innovation performance, service innovation and business performance in the Pakistani hotel industry. *International Journal of Hospitality Management*, 92(January), 102745.
17. Henseler, J., Ringle, C. M., & Sarstedt, M. (2016). Testing measurement invariance of composites using partial least squares. *International Marketing Review*, 33(3), 405-431.
18. Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In R. R. Sinkovics & P. N. Ghauri (Eds.), *New challenges to international marketing (Advances in international marketing)* (Vol. 20, pp. 277-319). Bingley: Emerald Group.
19. Johnston, R. (1995). The determinants of service quality: Satisfiers and dissatisfiers. *International Journal of Service Industry Management*, 6(5), 53-71.
20. Jones, T.O. and Sasser, W.E. Jr (1995). Why satisfied customers defect. *Harvard Business Review*, 73, 88-99.
21. Khalilov C., M., Gündebahar, M. (2012). XTM : An Alternative Delivery Channel in Turkish Banking Sector. *International Conference on Asia Pasific Business Innovation and Technology Management*, 57, 373-380.
22. Klinger, E. (1971). *Structure and functions of fantasy*. Wiley-Interscience.
23. Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration*, 11(4), 1-10.
24. Ladhari, R. (2009). A review of twenty years of SERVQUAL research. *International Journal of Quality and Service Sciences*, 1 (2), 172-198.
25. Olorunniwo, F., Hsu, M. K., & Udo, G. J. (2006). Service quality, customer satisfaction, and behavioral intentions in the service factory. *Journal of Services Marketing*, 20(1), 59-72.
26. Podsakoff, P.M., MacKenzie, S.B., Lee, J.-Y. and Podsakoff, N.P. (2003). Common method variance in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.
27. Prosser, A. M., Judge, M., Bolderdijk, J. W., Blackwood, L., & Kurz, T. (2020). 'Distancers' and 'non-distancers'? The potential social psychological impact of moralizing COVID-19 mitigating practices on sustained behaviour change. *British Journal of Social Psychology*, 59(3), 653-662.
28. Radomir, L., Nistor, C.V. (2012). High-Educated Consumer Perceptions of Service Quality: An Assessment of the SSTQUAL Scale in the Romanian Banking Industry. *Procedia Economics and Finance*, 3, 858.
29. Saunders, M., Lewis, P. and Thornhill, A. (2016), *Research Methods for Business Students*, 7th edition, Pearson, Essex. Science, 43(1), 115-135.
30. Shamdasani, P., Mukherjee, A., & Malhotra, N. (2008). Antecedents and consequences of service quality in consumer evaluation of self-service internet technologies. *Service Industries Journal*, 28(1), 117-138.

31. Shin, H., & Perdue, R. R. (2019). Self-service technology research: A bibliometric co-citation visualization analysis. *International Journal of Hospitality Management*, 80, 101-112.
32. Soona Park, David J. Kwun, Jeong-Yeol Park & Diego Bufquin (2021). Service Quality Dimensions in Hotel Service Delivery Options: Comparison between Human Interaction Service and Self-Service Technology, *International Journal of Hospitality & Tourism Administration. Strategic Decisions of Sustainable Development*, 241-246.
33. Teeroovengadum, V. and Nunkoo, R. (2018), "Sampling Design in Tourism and Hospitality Research", in Nunkoo, R, *Handbook of Research Methods for Tourism and Hospitality Management*, Edward Elgar Publishing, Cheltenham, pp. 477-488.
34. Voorhees, C. M., Brady, M. K., Calantone, R., & Ramirez, E. (2016). Discriminant validity testing in marketing: An analysis, causes for concern, and proposed remedies. *Journal of the Academy of Marketing Science*, 44(1), 119-134.
35. Wu, L. W. (2011). Satisfaction, inertia, and customer loyalty in the varying levels of the zone of tolerance and alternative attractiveness. *Journal of Service Marketing*, 25(5), 310-322.
36. Yilmaz, V., Ari, E. and Gürbüz, H. (2018). Investigating the relationship between service quality dimensions, customer satisfaction and loyalty in Turkish banking sector: an application of structural equation model. *International Journal of Bank Marketing*, 36(3), 423-440.
37. Zaman, U. (2020). Examining the effect of xenophobia on "transnational" mega construction project (MCP) success. *Engineering, Construction and Architectural Management*, 27 (5), 1119-1143.
38. Zeithaml, V.A., Berry, L.L. and Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, 60(2), 31-46.

Appendix

Speed of Service	1. Using an ATM-Cardless Withdrawal service to complete my transaction is fast. 2. It takes a long time to use the ATM-Cardless Withdrawal.
Ease of Use	1. It is difficult to use the ATM-Cardless Withdrawal service. 2. ATM-Cardless Withdrawal service is difficult to use. 3. It takes a lot of effort to use ATM-Cardless Withdrawal service. 4. Using the ATM-Cardless Withdrawal service is time-consuming.
Reliability	1. Transaction mistakes may occur as a result of using the ATM-Cardless Withdrawal service. 2. The ATM-Cardless Withdrawal service is untrustworthy.
Enjoyment	1. It's enjoyable to use the ATM-Cardless Withdrawal service. 2. It's entertaining to use the ATM-Cardless Withdrawal service. 3. It's interesting to use the ATM-Cardless Withdrawal service.
Control	1. Using the ATM-Cardless Withdrawal service ensures that the transaction is completed in the manner that I choose. 2. The ATM-Cardless Withdrawal service functions well.
Customer Satisfaction	1. I felt satisfied with the ATM-Cardless Withdrawal service's overall service quality. 2. When I received help from the ATM-Cardless Withdrawal service, I left in a happy mood. 3. In general, I felt satisfied with the ATM-Cardless Withdrawal service.

Customer Loyalty	1. I will tell others how satisfied I was with the ATM-Cardless Withdrawal service banking procedure. 2. When I use banking services, I expect to continue using the ATM-Cardless Withdrawal service. 3. I like using an ATM-Cardless Withdrawal service for banking services. 4. My first select for banking services is a ATM-Cardless Withdrawal service.
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