

# Customer Satisfaction in the Digital Age: Analyzing Private Sector Banks Online Services Quality in Agra (U.P.)

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**Abstract**— Banks are crucial players in the operations of financial markets and have a significant impact on maintaining the stability and functionality of a country's economy. In the current highly competitive business landscape, the quality of services plays a vital role in improving consumer satisfaction and fostering customer loyalty. The current study's aim is to better evaluate the context of customer satisfaction with online banking services and to signify the impact of the same. The present study is also stretched towards finding the determinants that have a high level of influence on customer satisfaction towards online banking services. For the investigation of the work, Agra (Uttar - Pradesh) is considered as the study region, the reason being the mixed population (urban and semi-urban) count in the study region. The study collects data from primary sources using a 5-point Likert scale questionnaire to investigate consumer satisfaction with the attributes of online banking services. By using the purposive sampling method, 400 self-administrated survey questionnaires were distributed to customers of different private banks operating in Agra via social media, from which 250 responses completed the survey. The analysis of the study has shown that the determinants of quality of service have an insightful effect on customer satisfaction with online banking services. In the current study dimensions for service quality -responsiveness, reliability, tangibility, empathy, technological advancement, and customer support were measured. Based on the current state of knowledge for online banking services to provide more insights for the policymakers and decision-making authorities. The banking system always tried to grasp better efforts to understand customer satisfaction.

**Keywords:** customer satisfaction; online banking; service quality; technological advancements; customer complaints.

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## I. INTRODUCTION

Online banking services are a modern approach that allows customers to conduct financial transactions online without the need to physically visit a traditional bank branch [1]. The adoption of electronic banking plays a crucial role in the bank's efforts to modernize and enhance its offerings and methods of customer service delivery. Therefore, it is regarded as a significant and effective resource in the advancement, expansion, and promotion of innovation, as well as in the enhancement of banks' competitiveness [2].

An effective banking system has a favorable impact on the economic development of a country [3]. Nevertheless, the professionals in this field encounter several sophisticated obstacles when doing their enterprises in a constantly changing and competitive environment. Hence, it is imperative for banks to get a deeper comprehension of these difficulties and adapt to the evolving demands of clients in order to enhance their competitive edge over other service providers. In light of this, it is imperative for banks to provide a wide range of competitive services and continuously update their offerings to cater to the evolving demands of their consumers. Customer satisfaction has been used as a metric for assessing corporate performance and offerings [4].

In order to appropriately understand satisfaction in the e-commerce environment, it is important to have a clear awareness of the concept of client perception. An emotional and cognitive assessment is needed to make a way out toward customer satisfaction, in which the perceived performance is matched to a reference standard. Dissatisfaction among customers will occur if the perceived falls are short of the expected. On the other hand, if the observed functioning fulfills expectations, customers are counted towards a satisfactory node [5]. Conducting an in-depth customer satisfaction study is a crucial prerequisite for success in the competitive digital market.

The advent of E-Banking in the 21st century has virtualized a reflective impact on all aspects of human life [6]. Prior studies have shown that the quality of services for online banking services has had a positive influence on customer satisfaction and also has contributed to the adoption of the services [7]. In order to flourish and maintain a presence in the market, a company must mark enhancement towards the factors defining customer satisfaction [8]. Hence, it is quite mandated to fully comprehend the demands of consumers and immediately fulfill their desires in order to maintain customers.

Quality of service is regarded as the primary determinant for survival in a viable economy. Attaining a sustainable competitive advantage may be accomplished by delivering the highest quality services. Service providers may distinguish themselves from rivals and improve their profitability by offering high service quality. This can attract fresh customers, reduce costs, increase stakeholders' happiness, improve customer retention, and enhance the company image [9]. In addition, positive word of mouth serves as a means to recruit new customers [10]. Essentially, the degree of customer satisfaction is intimately associated with the service quality of the delivered services. Consequently, improving consumer satisfaction results in increased customer loyalty [11, 12].

Hence, in order to differentiate this research from prior studies, the current study carried out the following procedures: Initially, the study extended the existing approach by integrating additional elements related to work in addition to the quality criteria. These additional dimensions contribute to customer satisfaction, resulting in a continuous process of improvement and refinement. Furthermore, the study enhances the scope of the study by including complaints and resolution as influential elements in determining customer happiness with online banking services. The procedure presents a more widespread comprehension of customer satisfaction in online banking, serving as a reliable measure of the success of online banking. Therefore, in this field of study, the present paper proposes a multitude of contributions. Firstly, this study's objective is to provide a broad knowledge of how the primary elements of service quality and the process of resolving complaints affect consumer satisfaction after adopting a service. The second objective is to examine the indirect influence of several determinants of online banking related to the quality of services, such as parameters associated with the service process, environmental structure, towards customer satisfaction. This will be done by exploring the role of rewards and incentives.

For the present study, the paper is organized in the following manner: firstly, it begins by addressing the research topic and provides background information to situate the study. Subsequently, an examination of the existing body of knowledge pertaining to service quality, technical progress, customer feedback and complaints, and satisfaction in the context of online banking. Additionally, the study delves into the significance of the framework in the field of management and business. Subsequently, the study's hypotheses provide a concise summary and findings derived from the data-gathering procedure that allows the researchers to engage in a discussion and offer management implications, limitations, and suggestions for future study.

## II. LITERATURE MODEL AND RESEARCH HYPOTHESIS

The majority of the services focused on customers' requirements. Consideration of customer satisfaction is counted among the determining factors for the successful implementation of any business [13]. The behavior towards picked services from customers ends after usage or continuation usage is somehow termed as customer satisfaction for the product or service offered by the organization. Customer satisfaction provides a general orientation of the services/goods for any organization [14]. Many of the literature studies have defined customer satisfaction as the gap between the requirements and what is delivered [15]. Customer satisfaction is directly associated with the performance of the offered services [16]. The phrase "customer's relative feelings" pertains to the emotions that a customer experiences when there is a difference between their expectations and their experience [17].

The concept of "Service Quality" has received significant and intellectual research focus in the scientific literature [18]. Quality of Service may be described as the disparity between the anticipated opportunities of a client and the experience they encounter. The notion may be seen as a detailed evaluation by customers of a particular service, assessing the level by which their perceived opportunities and level of satisfaction [19].

Expectations pertain to consumers' anticipations regarding the service and the specific experiences they might encounter throughout the transaction. Customers' expectations might differ based on their level of familiarity with a product or service [20]. Several variables beyond one's control can impact customers' expectations, including their prior experiences with other companies and their promotional efforts, their

psychological state during service delivery, dimensions related to cultural being, demographics, thinking about the product, and also the brand image cultural norms, beliefs, and background, as well as the perceived image of the products that are offered [21].

### **a. Reviews related to Service Quality (Responsiveness, Reliability, Tangibility, Empathy) and Customer Satisfaction**

Many studies have emphasized the utmost importance of security in Internet banking. The tangibles dimension encompasses the physical assets, such as equipment, buildings, persons, and materials, that are involved in communication [22], [23].

Similarly, the study of [24], [25] has evaluated the effectiveness of the service quality-related parameters contributing towards customer satisfaction for online banking services, and the works have evaluated some other factors, such as security/privacy, trust, and ease of use. In another study [26], a specific conclusion was drawn regarding service assurance, empathy of the services, responsiveness, reliability of the services and tangibility for online banking services.

In the same row, the author [27] evaluated and confirmed the effectiveness of the responsiveness of the services as the major tool for client assistance and providing a better service experience. Responsiveness, in the context of customer satisfaction, pertains to the ability to fulfill consumer needs in a manner that aligns with their expectations. Responsive staff is characterized by their willingness to assist consumers and provide service [28], [29] evaluated the characteristics of online banking for quality of services, including timeliness, dependability, reliability, ease of use, accessibility, usefulness, privacy, and security, are essential for establishing client satisfaction and loyalty.

In a study [30] author evaluated the quality of service-related factors and also showed the influence on customer satisfaction. Specifically, the author has defined and focused the entire study on dimensions such as empathy, assurance, reliability, responsiveness, and tangibility of online banking services. Along with many of the contributing dimensions, a common dimension with most of the research is the ease of use contributes towards customer satisfaction for e-banking services [31]. Authors [32, 33] evaluated the determinants contributing to customer satisfaction for online banking services. Dimensions such as time consumption, ease of use, privacy/security, and data confidentiality are among some factors that banks need to target at most to enhance customer satisfaction with the offered services. In the row [34] marked that along with many quality-based factors and functional dimensions. The networking paradigm has offered various levels of encryption tools and techniques for which the customers have some to zero information, which makes them more concerned about security and privacy. Majorly the dimensions, ease of use and privacy/security brand value are among those dimensions that mark a high level of impact on customer satisfaction [35].

*H1: Service Quality (Responsiveness, Reliability, Tangibility, and Empathy) has a positive impact on customer satisfaction towards online banking services.*

### **b. Reviews related to Technological Advancement Interface and Customer Satisfaction**

The study [36] revealed that Information Technology (I.T.) enables the creation of new technology services and the implementation of effective strategies, facilitating connections with individuals from other nations, industries, geographic locations, and diversified marketplaces.

The main goal of the study was to provide insight into the recent surge in growth within the financial sector [37], specifically targeting the role of technological advancement in explaining the position of FinTech in the overall financial sector, with a special emphasis on its impact on the banking sector.

The work has evaluated the autonomous state of the banking services. Authors in the work [38] have evaluated the work on the basis of open-ended interviews to detect the effective determinants and have defined seven in the study as stability of the provider, current status, investments, auxiliary features, ease of use, individual finances, discovery, etc. The study also concluded that the banking organizations dealing with online banking services are supposed to be more attentive toward the requirements marked by the young customers. Authors [39] have shown the effective relationship between technological advancement quality of services for an effective banking system. A study [40] conducted in Nigeria to determine the main determinants of online banking services resulting in customer satisfaction, friendliness with the services, queue management, usability of the services, stability of the provider, transfer of funds and time consumed are some factors identified on the basis of close-ended questionnaire-based interview. The study has revealed that about 88% of customers have counted online banking services as a convenient and scalable form of service.

*H2: Technological advancement has a positive impact on customer satisfaction with online banking services,*

### **c. Reviews Related Customer Complaints/Resolution and Service Quality**

Customer feedback is a viable source for resolving many issues facing an organization [41]. It is an effective and efficient strategy for expanding the management horizon for providing adequate satisfaction to her numerous customers [42]. In other words, it develops management insights on how best to provide the various needs and wants of their customers. Twenty-first-century customers are very knowledgeable, highly demanding and adept to the extent that they can even educate providers of services on how to provide satisfactory services to them [43].

Indeed, organizations reorient their products and services through the invaluable information gathered through customer feedback [44]. Customer feedback is a very important marketing strategy that is highly solicited from management via focus group interviews, focused customer satisfaction surveys, complaints [45], suggestions or comments and compliments. They are used to satisfy customer expectations and ensure continuous service improvement if and when resolved amicably [46]. Customers can equally communicate their experiences by offering unsolicited feedback [47]. Customer feedback management guarantees competitive advantage, company performance, good customer relationships, effective decision-making, organization learning and service quality improvement.

However, customer complaints management is the process of identifying and correcting the causes of various customer complaints and dissatisfaction through the conveyance of credible information [48]. According to them, it refers to strategic means of resolving customer

grievances from the company's past mistakes in order to restore customer confidence and trust. Thus, of great significance is the information gathered from customer complaints for the quality management process, which can be applied to correcting and gaining adequate knowledge about product quality and delivery system's weaknesses and failures.

*H3: Customer complaints/issues resolutions have a positive relation towards service Quality.*

### III. PROBLEM STATEMENT

The gap in the services from the customer's point of view is the disparity between the expectations customers have and their real impressions. This gap occurs when the management fails to accurately grasp the desires and preferences of the consumers. Customer expectations are the predetermined criteria or benchmarks that consumers have in mind before engaging in a service, whereas customer perceptions are the personal evaluations of the actual service encounters. Ensuring alignment between client expectations and perceptions is crucial for providing high-quality service. As per the change seen in the way of delivering the banking services the customer perception and requirements with time are changing. Customer picks different medium always have certain factors that decide the adoption and continuation and also the satisfaction level for the service applicability. It is mandated for the banking organizations to study and evaluate the gap that exists between the provided services and the requirements of the customers. This tries to detect the gap within the same via studying the factors responsible for customer satisfaction towards online service.

#### a. Research Objectives

- I. To examine the impact of service quality on customer satisfaction in the digital banking environment.
- II. To explore the role of technological advancement in shaping the satisfaction of the customer for service quality.
- III. To analyze the relationship between service quality and customer complaints or issues.

#### b. Research Model

Below mentioned figure 1 represents the dimensions of online banking service quality that significantly impact customer satisfaction. The complete work analysis is further depicted on the basis of certain variables, as marked in the model below. The categories with which the variables are counted are quality of service, customer complaints/resolution, and technological advancement. On the basis of these variables and defined categories, research hypotheses are defined and validated using statistical analysis via certain tools and techniques as defined in the next section to be followed.

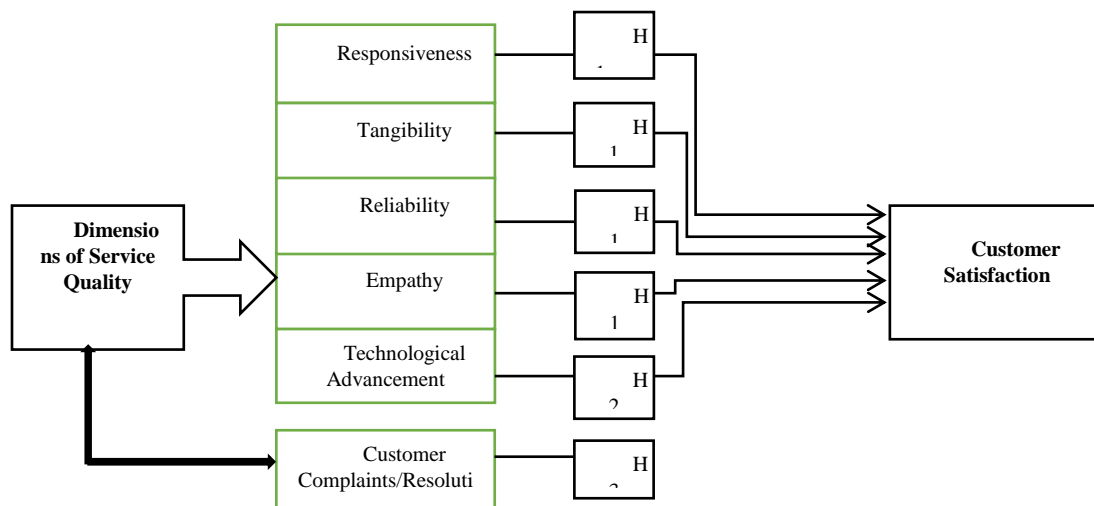


Figure 1: Research model based on Hypothesis.

Source: Own elaboration.

### IV. RESEARCH INSTRUMENT

The study employed a combination of descriptive and explanatory approaches to address the issue statement. The descriptive technique was employed to ascertain the correlation between independent and dependent variables, and it is advantageous for distinguishing elements and hypothetical constructs. The study utilized an explanatory research approach to examine the direct relationship between the use of online banking services and customer satisfaction, in keeping with the study's goal. The explanatory research technique is appropriate for assessing the influence of independent factors, such as service quality (reliability, tangibility, responsiveness, assurance, empathy) and technical development, on the dependent variable of customer satisfaction.

The study utilizes primary data acquired from customers of private sector banks in Agra, Uttar Pradesh. Additionally, the research was facilitated by the utilization of secondary data, which was also employed to acquire knowledge about the results of other field researchers (empirical study). The study would gather associated information, such as the definitions of Internet banking, its historical background, and its advantages, from secondary sources such as library books, journals, business newspapers, and magazines.

The questionnaire survey was done on customers of several banks in Agra (Uttar Pradesh) who had been using Internet banking for at least 1 year. It illustrates that each user has a significant level of online banking expertise. This ensured that all participants had ample expertise in online banking. The questionnaire is meticulously developed, with the exception of the statements/questions pertaining to respondent's identification, it is semi-open. Each closed question/statement in the Likert scale is accompanied by available options to mark reply: 1 for SDA (strongly disagree), 2 for DA (disagree), 3 for N (Neutral), 4 for A (Agree), and 5 for S.A. (strongly disagree).

The defined questionnaire is further considered in two portions. The initial portion focuses on the respondent's demographic profile. The next portion includes items that measure the independent variables: Tangibility, reliability, empathy, and Responsiveness. Customer Satisfaction is also further evaluated as the dependent variable, Customer Satisfaction in this section.

The self-generated questionnaire underwent thorough validation prior to distribution to the respondents, including pilot research with 50 participants. The Cronbach's alpha test is commonly considered to evaluate the reliability and stability of questionnaires that measure latent variables. The results pertaining to the pilot study for the entire questionnaire are partitioned into two parts.

## V. RESULTS

The work seeks to examine primary determinants that lead to customer satisfaction with online banking services in Agra (U.P.). Hence, the population of this study encompasses all individuals who utilize online banking services in Agra and Uttar Pradesh. Due to the unavailability of a comprehensive list of Online banking clients in Agra (U.P.), a non-probability convenience sampling method was used to choose the participants for the research. Employing this methodology can assist in acquiring a sufficient sample size [49].

### a. Sample and data collection

There can be various applicable mediums to distribute the survey copy to the participants like social media platforms, personal, text services, and emails [50]. For many mediums like SMS and email, a list of emails and mobile numbers is required, which actually seems infeasible because data collection is a tedious task via an individual base, and banks will never share the same because of data integrity issues. Hence, social media is the available option that offers a wide range of options for collecting the data and responses from the potential respondents. Facebook is among the widely used platforms that have the base of almost all categories of population of varied age demographic range. In the current the survey is distributed over Facebook by following 18 banking communities related to the banking services. On the shared questionnaire, 1765 impressions were marked from 250 respondents who completed the survey, for which the response rate is calculated as the total of completed responses divided by the total impressions and out is multiplied by 100 as  $250/1765 * 100 = 14.16\%$ . According to the literature available, this response rate is quite acceptable for any survey criteria [51]. The response data was further encoded into the analytical tool SPSS 26.0 for further descriptive analysis by analyzing the demographics and characteristics defined in the practical work process.

### b. Pilot Study

Following the questionnaire generation, a pilot study is carried out to verify the absence of any uncertainty in the questionnaire and to assess the amount of time needed for survey completion. The internal consistency of the research model is assessed using a pilot study by employing Cronbach's alpha as a testing tool [52]. The pilot research was carried out for one week in June 2023, during which social media-based distribution of the survey sheet was delivered to respondents.

The study uses a questionnaire to gather data. The current pilot study employs the random sampling of bank customers who are somehow enrolled with online banking services and are specifically residents of Agra. To justify the effectiveness of the tools for the survey pilot study comprised 50 participants, which actually are justifiable to mark a valid pilot study [53]. Cronbach's Alpha is marked to proof the assessment of the study, which actually is evaluated using SPSS 25. Prior to starting the analysis, it is critical to assess a questionnaire's dependability. A questionnaire's dependability determines how accurate it is. When assessing a measuring procedure's reliability, Cronbach's Alpha (C.A.) is often employed. Cronbach's Alpha values close to 1 showed that every element contained inside the construct was consistent in terms of scope and meaning (Cronbach, 1971). "The Cronbach's Alpha value of the different dimensions considered in the questionnaire is 0.830 for tangibility, 0.815 for Responsiveness, 0.826 for reliability, 0.895 for empathy, 0.814 for Technological advancement, 0.817 for customer support and 0.819 for customer satisfaction, indicating the reliability of the questionnaire" as the value is greater to 0.70. The Bartlett sphericity test and Kaiser-Meyer-Olkin (KMO) are selected because their degree of measurement attributes exposes their measurement impact, and when their validity is greater, it aligns with the goal of the questionnaire test [54]. The KMO value is 0.500 for tangibility, responsiveness, reliability, empathy and technological advancement, 0.716 for customer support and 0.683 for customer satisfaction, suggesting that the validity of the questionnaire has been established because the value is either equal to or more than 0.50.

Table 1: Result of Cronbach's alpha and KMO of Pilot Study.

Variables	Number of Items	Cronbach's alpha values	KMO Values
Tangibility	2	0.830	0.5
Responsiveness	2	0.815	0.5
Reliability	2	0.826	0.5
Empathy	2	0.895	0.5
Technological Advancement	2	0.814	0.5
Customer Complaints/Resolution	3	0.817	0.5
Customer Satisfaction	3	0.819	0.716

Source: Own elaboration.

### c. Data Analysis and Findings

For the work analysis, respondents were selected from different banks operating in Agra (U.P.). The survey sample was distributed randomly to the respondents, from which 42% of females and 58% of males contributed to the response list. As per the observation drawn from the received responses, relatively young age respondents participated actively in the survey, and about 30.8% of the respondents were below 25 years; from the age group 25-34 years contributed about 30%, 20.8% of the participants were above 36 years. The education section of the participants was that about 49.6% of the participants had graduate degrees or more, 23.6% had bachelor's courses, and the rest others like students. The demographic analysis also includes the year of usage for online banking services, and the analysis of the respondents shows that about 72.8% of the respondents had 1 or more than 1 year of usage experience. The statistical records for the demographics-related parameters are marked in Table 2.

Table 2: Descriptive Statistics.

Descriptive		Number	%
<b>Gender</b>	Female	105	42
	Male	145	58
<b>Age</b>	Less than 18 Years	25	10
	18-24 years	77	30.8
	25-34 years	75	30
	35-50 years	52	20.8
	More than 50 years	21	8.4
<b>Education</b>	Less than High School	20	8.0
	High School	47	18.8
	Diploma	59	23.6
	Under Graduate	51	20.4
	Post Graduate or Above	73	29.2
<b>Occupation</b>	Student	47	18.8
	Unemployed	38	15.2
	Self-employed	54	21.6
	Servicemen	88	35.2
	Others	23	9.2
<b>Experience</b>	Less than one year	68	27.2
	1-2 years	66	26.4
	More than 2 years	116	46.4
<b>Products</b>	Basic account information	27	10.8
	Making online payments	104	41.6
	Checking account balance	44	17.6
	Bank Transfer	42	16.8
	Others	33	13.2
<b>Residence</b>	Rural	79	31.6
	Urban	123	49.2
	Semi-Urban	48	19.2
<b>Frequency usage of online banking</b>	Every day	64	25.6
	Several times a week	57	22.8
	Several times in a month	101	40.4
	Once a month	28	11.2

Source: Own elaboration.

H1: There is a significant impact of service quality (Tangibility, Responsiveness, Reliability and Empathy) on customer satisfaction in the digital banking environment.

Table 3: Regression Analysis.

Hypothesis	Regression Weights	Beta Coefficient	R2	F	t-value	p-value	Hypothesis Result
<b>H1</b>	Service Quality>Customer Satisfaction	0.131	0.017	4.326	2.080	0.039	<b>Supported</b>

Source: Own elaboration.

The above Table 3 Regression analysis shows that the independent variable Service Quality (Empathy, Responsiveness, Reliability and Tangibility) significantly affected the dependent variable customer satisfaction. H1 is tested by regression. The beta coefficients are dependent on the units of the predictor variables. Here, the beta coefficient value is .131, which means a 0.131 increase in customer satisfaction is associated with each one-unit increase in Service Quality. R2 shows only a 0.017 variance, which is directly marked by the quality of service. A statistically significant model is validated on the basis of p-value, as the p-value should be less than 0.05 (significance level). In the case when the value of p-value is less than the significance level means that the overall regression model is statistically significant. In this case, with a p-value of 0.039, the model is statistically significant.

H2: There is a significant impact of Technological Advancement (role of technology, user interface, and digital innovation) in shaping customer satisfaction toward service quality.



Table 4: Regression Analysis.

Hypothesis	Regression Weights	Beta Coefficient	R2	F	t-value	p-value	Hypothesis Result
H2	Technological Advancement > Customer Satisfaction	0.136	0.018	4.653	2.157	0.032	Supported

Source: Own elaboration.

The above Table 4 Regression analysis represents that the independent variable technological advancement (role of technology, user interface, and digital innovation) significantly affected dependent viable customer satisfaction. H2 is tested by regression. The beta coefficient is dependent on the units of the predictor variables. Here, the beta coefficient value is .136, which means a 0.136 increase in customer satisfaction is associated with each one-unit increase in technological advancements. R2 shows only .018% of the variance for customer satisfaction can be evaluated via technological advancements. A p-value less than the significance level (commonly 0.05) shows that the overall regression model is statistically significant. A p-value less than the significance level (commonly 0.05) suggests that the overall regression model is statistically significant. In this case, with a p-value of 0.032, the model is statistically significant.

H3: There is a significant relationship between service quality and customer complaints or issues.

Table 5: Correlation Analysis.

Hypothesis	Factor			Correlation		Hypotheses Supported
		Mean	SD	Pearson Correlation (r)	Sig value	
H3	Service Quality	27.6200	4.29013	.130*	0.041	Supported
	Customer Complaints/Resolution	10.8600	2.51270			

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

Source: Own elaboration.

The above table 5 represents the relationship between Service Quality and Customer Complaints/Resolution. For "Service Quality," the mean is 27.6200, and the standard deviation is 4.29013. For "Customer Complaints/Resolution," the mean is 10.8600, and the standard deviation is 2.51270. Service Quality and Customer Complaints/Resolution showed a favorable and statistically significant Pearson association (r = .130, p <.05). The correlation between service quality and customer complaints/resolution is 0.130, indicating a positive but relatively weak correlation. H3 was, therefore, supported.

## VI. DISCUSSION

As far as the literature and the current research study are concerned, policymakers are to think more toward customer-oriented policies considering the identified dimensions for customer satisfaction. Most of the literature studies have reflected the positive reflection of the service quality of online banking services towards customer satisfaction. The behavioural and structural aspects highly contribute the customer feedback for the services provided, and also, the system-related dimensions are needed to be specifically considered. On the basis of the literature analysis and current work, online banking services have a positive impact on customer satisfaction. The satisfaction level towards the business process always reflects on the service continuation and trust of the providers and also contributes to the marketing in an indirect way [55].

The integration of the digital medium into banking services actually contributes highly to the growth of the banking sector. Online banking format has contributed in almost every direction of the banking sector and has shown a high impact on customer satisfaction by providing valued and timely managed services in one click. The literature and current work have shown that online banking has limitless opportunities that can be beneficial for the customer and also for the policymakers as well. Online banking services depend on many factors, among which some have been counted as the major contributors as system and service quality, customer support, customer experience in terms of transparency, ease of use, etc [56]. Quality of service for online banking services always has shown a high consideration towards customer satisfaction by representing a greater customer experience.

On the basis of the presented analysis, two main outcomes have been seen as the evaluation outcome; for the first contribution, various dimensions contributing towards customer satisfaction for online banking services are outlined, for which the extensive literature is considered for some recent years. The study found that quality of services with fewer other dimensions among the determinants which highly mark impact towards customer satisfaction and the current work adds value to the state-of-the-art literature stating the impact of various factors contributing responsible for customer satisfaction for online banking services.

In the second phase, the study evaluated the impact of quality of service-related factors, technological advancements and consumer complaints/resolution on customer satisfaction towards online banking services. This research within marked Hypothesis, which proved to have a high level of impact on customer satisfaction when considering the variables related to service quality. Online banking has direct effects on customer satisfaction with dimensions such as technological advancement and customer complaints/resolution. The current work, along with the literature exploration proven to consider system quality, technological advancement and customer support to customer satisfaction towards online banking services.

The current study, in terms of the study region, is limited to a single city, Agra (U.P.), which adds as a limitation of the work as the variations in the demographic based on the region may impact the overall study's generalizability. As the study marks greater in and out sample predictive power, the study can be directly picked for other study contexts for future research.

### a. Managerial implications

The current works provide a brief insight into the customer orientation for the banking managers. The study has marked the quality of service parameters (responsiveness, reliability, tangibility, empathy, technological advancement) as the factors highly contributing towards

customer satisfaction, with which the banking policymakers can directly pick the highlighted context to drift the orientation more concerned about customers. Among other quality of service parameters, responsiveness is marked as a major influencer, and the same marks the presence of the banking organizations for further consideration in the service infrastructure via informatic/technological improvements to mark the best way available service criteria to the customers.

The current work provides an enhanced value to the customer satisfaction for the online banking services. The findings of the study have shown that the quality of service parameters has a high level of influence on customer satisfaction, which indicates that the majorly considered/defined dimensions should be counted while employing the service flow and policy designing. On the basis of the current study's evaluation and also considering the literature exploration, factors like empathy, accessibility, attractiveness, responsiveness, reliability, and advancements mark the higher impact on customer satisfaction for online banking services. Timeliness, completeness, and accuracy of the services ensure the information quality and serve towards customer wellbeing and satisfaction. The study evaluated the quality of service as among the major factors that highly influence the customer and work towards the integrity and ability of the organization to deliver efficient and continuous services.

## VII. CONCLUSIONS

In the literature review of the recent two decades, many of the researches have been conducted to detect the factors that highly contribute towards customer satisfaction for online banking services. So as to clarify the customer opinion, it is just important to redeem the information about the dimensions of customer satisfaction to make the most in the digital era. In the current study, contextual literature and primary analysis are being conducted to mark light or to detect the determining factors of customer satisfaction for online banking services. Various studies have marked the relevance of the service quality factors over customer satisfaction for online banking and also have defined certain other parameters of contribution. The current work has shown a relationship between the service quality parameters (Responsiveness, Tangibility, reliability, and empathy) with customer satisfaction and has also evaluated the context of technological advancement and customer complaint/resolution. On the basis of the tested Hypothesis, the findings of Table 3 have shown a positive impact for the four service quality determinants (Responsiveness, Tangibility, reliability, and empathy) towards customer satisfaction because the significant value for hypothesis 1 is 0.036 that is less than 0.05 ( $\beta = 0.036$ ,  $p < 0.05$ ). The Findings presented in Table 4 reveal that technological advancement has a significant and positive impact on customer satisfaction ( $\beta = 0.032$ ,  $p < 0.05$ ). However, the findings of Table 5 Regression analysis show that customer complaints/resolution have a relationship with online banking services on customer satisfaction ( $\beta = 0.041$ ,  $p < 0.05$ ).

### a. Limitation and Future Scope

The current investigation possesses a limited number of constraints, which might be regarded as a prospect for future research. Additional moderating variables can be incorporated to examine how E-banking services may influence customer satisfaction towards online banking services quality. The study somehow is limited for the context as the limited population size of respondents is considered by which the outcomes may be strengthened considering more portion of the population. Also, the study is limited to a city (Agra (U.P.) with which it is a lot harder to make a common perception for the population and all around with different societal and professional contexts. The study has various reflections that can be directly picked by the financial organization to create a competitive process and to enhance customer engagement and satisfaction towards the offered services. The central banking units or the banking governing bodies have to ensure that the banking organizations are considering the quality services most for the listed services to make the most for customer satisfaction for better market representation.

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