

The Study of the Customer Satisfaction in the Banking Sector in Kolkata: A Quantitative Approach

Sk Shahid Ahmed

Department of Master of Business Administration

Budge Budge Institute of Technology, Nishchintapur, Kolkata, West Bengal, India

Abstract: *This study looks into the important aspects of customer satisfaction in Kolkata, India's banking sector. Kolkata, one of the nation's principal financial centres, has a competitive and diverse banking market, thus it is critical for banks to put client happiness first in order to stay ahead of the competition. The purpose of this study is to determine the major variables affecting customer satisfaction and the degree to which these variables affect the entire banking experience in Kolkata. Structured questionnaires were utilized to collect quantitative data from a broad sample of bank customers, and in-depth interviews with specific individuals were employed to provide qualitative insights. The results of the study were then subjected to theme analysis and statistical methods.*

Keywords: Customer Satisfaction, Customer Loyalty, Financial Sector in Kolkata, Financial Service

I. INTRODUCTION

In the banking industry, marketing has encountered many challenges, and making strides in the competitive arena has not always been simple. Since restrictions were eliminated, the banking industry has undergone an upsurge, and aside from size, little separates one financial institution from another (Richardson & Robinson, 2007). While still prevalent in many other nations, the adoption and use of the marketing concept by banking institutions has been gradual but lucrative in many. However, conventional product-focused banks have grown more and more customer-focused, putting a greater emphasis on loyalty to clients. The banking sector is increasingly conducted online today; financial institutions offer their services through a variety of digital channels, and the significance of a conventional network of banks has diminished. The business sector is experiencing increasing global competitiveness. To stand out from other businesses in the market, a company must offer exceptional services. In today's market, a company's ability to satisfy its customers is essential. It is a mindset derived from information and prior experience. In today's cutthroat business environment, every corporation prioritizes a high level of respectable consumer satisfaction. Financial institutions think that attracting consumer happiness is essential to business. Because of this, financial institutions are increasingly focused on retaining and satisfying their clients (Zairi, 2000). Every worker engaged in any phase of the customer service procedure experiences a feeling of accomplishment and achievement when client satisfaction is measured. Measuring pleasure in this way motivates people to put in more effort and produce more. When client happiness is quantified, all staff members engaged in any phase of the customer service process have a feeling of achievement and accomplishment. Measuring contentment in this way motivates people to put forth more effort and produce more. (Yasin et al., 2004). Customer service is the cornerstone of any business and is regarded as such by all sectors. The rapid advancements in internet-based technologies are causing a shift in the basic ways that different organisations connect.

The relationship between an organization and its customers is the same in this regard. It has been difficult to establish a link between customer satisfaction and service quality across different service organizations due to the intangible nature of services. (Hong & James, 2004). India's financial system has significantly grown during the past 20 years. But it is faced with a number of obstacles and difficulties, such as rising awareness among consumers and demand, intensifying competition, an aging population, etc. In addition to them, technological improvements pose a serious problem for the sector. The quick development of the industry has resulted in the emergence of several new private banks. Consumers

therefore have several options when selecting a financial service provider. Consumers are starting to favor banks that can live up to their expectations and provide standard services as their understanding of banks increases. In the Indian market, where many financial institutions offer nearly identical services and products, a bank can be distinguished by its need-based, efficient customer care and service quality. The relatively modest variations in financial goods and services, along with an ever-more demanding consumer, have caused a major shift in the role of financial institutions in today's extremely competitive, complicated, and rapidly changing marketplace (Beerli et al., 2004). Numerous developments have changed the retail banking industry, primarily as a result of new ways to market and distribute banking services (Verhoef et al., 2002). All employees taking part in any stage of the customer service process feel an understanding of achievement when client satisfaction is measured. Measuring contentment in this way motivates people to put forth more effort and produce more (Wild, 1980). Customer loyalty is linked to customer happiness, and both are linked to a bank's profitability. For service firms, customer satisfaction is a crucial component that is closely tied. They are all connected by the level of service quality; as service quality improves, customer happiness will rise as well. This will result in more stable connections between a bank and its customers, which will boost loyalty and profitability. Nevertheless, it is nearly impossible to consistently infuse a whole organization with something as elusive and ephemeral as customer satisfaction.

II. DEFINING CUSTOMER SATISFACTION

According to the Cambridge dictionary, the definition of customer is "a person who buys goods and services". Three parties are involved in consumer services: the seller, the buyer, and the goods or services. Therefore, consumer service is the combination of all these entities working for the mutual advantage of all parties involved in the purchasing and selling procedure. Over the past few years, both academics and practitioners have become interested in the concept of consumer pleasure because customers represent the majority of market participants' primary source of income (Tam, 2004). When customers purchase and use something after considering the costs and advantages of the purchase in relation to the anticipated results, they are more satisfied (Churchill & Surprenant, 1982). The basic objective of financial services, according to India's Talwar Committee (1977), should be "to create and deliver customer-needed services in a customer-satisfying manner." This implies that for financial services, both generating and providing services are required. Customer satisfaction refers to a person's contentment or dissatisfaction with the perceived efficacy of a product in proportion to his or her expectations. The basic formula for customer satisfaction was defined by Rao (2008).

Customer Satisfaction = Customer perception of the service received - Customer expectation of service.

In this method, it is straightforward to assume that client satisfaction will be high if the belief in the service obtained exceeds the expectation of the service. According to this method, it is straightforward to make the generalization that customer satisfaction will be high if the perceived quality of the provided service exceeds the customer's expectations. Satisfaction is a sensation or a fleeting attitude that can change based on the circumstances. It is internal to the user and distinct from outward activities like product selection, complaints, or repeat purchases (Hokanson, 1995). Some banks do not believe that customer satisfaction is important enough to be a focal point of their marketing strategies. (Aldisert, 1999) It is simpler to assess how well a company's products and services live up to expectations when customers are satisfied. It serves as a crucial performance measure for business. The level of customer satisfaction is typically measured by service companies using several measures, like the Likert scale, which is primarily based on the service interaction experienced on a client's most recent visit (Peterson & Wilson, 1992). Recent consumer interpretations now frame contentment as a fulfillment reaction. Understanding a consuming purpose, such as the basic drives of hunger, thirst, and safety, is necessary for feeling satisfied. The phrase "customer satisfaction" is most commonly used in trade and industry, and it is a dependent variable in the present research. However, this evaluation of the firm's products and services is a reflection of the effort made to guarantee that it lives up to the expectations of its customers. Pleasurable in this context suggests that satisfaction brings pleasure or lessens suffering. As a result, people can be satisfied to restore normalcy, such as when an aversive state is eliminated. Furthermore, fulfillment isn't always restricted to situations in which demands are met. Under-fulfillment can be satisfying if it gives greater enjoyment than one thinks in a particular setting, while over-fulfillment can be satisfying if it brings additional surprise pleasure (Oliver, 2014).

III. RESEARCH OBJECTIVE

Due to technological improvements and changing consumer tastes, Kolkata, India's dynamic banking market, has seen considerable changes recently. Because of this, it is now essential to look into the factors that, in the context of commercial banking, influence customer satisfaction and loyalty. The goals of this research piece are as follows:

1. To identify the key elements impacting customer satisfaction in Kolkata's commercial banking
2. To evaluate the amount of customer loyalty for Kolkata's banking services.
3. To determine the satisfaction level of customers with the commercial bank's level of service in Kolkata.
4. To measure the extent of client impressions regarding security in commercial banks in Kolkata

IV. STUDY LIMITATION

The current study gathers pertinent information from various sources from the respondents' perspectives. There are around 2310 banks in Kolkata. This study is confined to only 91 branches at different banks. These results need to be applied broadly in order to describe customer satisfaction with banks in Kolkata to the general public. Nevertheless, the findings are not transferable to other types of bank clients. The study's completion of the data collection, processing, and interpretation in a mere 16 weeks represents another constraint. I ought to devote more attention to improving the caliber and outcomes of the research.

V. DATA

The research was conducted with a sample of 31 branches from different banks in Kolkata and a random sample of 203 individuals. The information was gathered using a standardized questionnaire. In order to carry out the research, the author used the primary method of data gathering. Each set of questionnaires consists of five parts. Each set of questionnaires consists of 19 questions and contains two dimensions (service quality dimension and customer satisfaction dimension), all of which were answered by all respondents. Part one of the questionnaire consists of the **demographic** profile of the respondents, while part two is about the **satisfaction** level of customers with banks' products; the third part is about **customer service quality**; the fourth part is about the **loyalty of customers** toward banks; and the last part is about the satisfaction level of **security**. Out of four variables, customer satisfaction is a dependent variable, and the other three are independent variables.

According to the principles of validity, reliability, and assessment, the Likert scale was deemed to be the most suitable scale. The researcher uses questions with a Likert scale to make data analysis simpler. Strongly disagree is graded on a Likert scale of 1, not agree is graded on a Likert scale of 2, not sure is graded on a Likert scale of 3, agree is graded on a Likert scale of 4, and strongly agree is graded on a Likert scale of 5. The field survey was carried out outside of the significant financial organizations' branches during the three months of 2023. The SPSS software, version V.26, was used for analyzing the data.

VI. DEFINING INDEPENDENT VARIABLES

SERVICE QUALITY

Delivering high-quality goods and services has moved up the marketing priority list since the 1980s. However, manufacturers of tangible goods have more accurate means of defining and quantifying quality (Leonard F., 1982). The client's expectations for service performance prior to the service encounter and their evaluation of the services obtained can be used to gauge the quality of the service (Asubonteng, 1996). Customer perceptions of service quality are subjective comparisons between the desired level of service and what they actually obtain.

CUSTOMER LOYALTY

Customer loyalty is the desire of a client to stay an ongoing consumer of an organization or brand, frequently choosing it over rivals. Loyal customers are more inclined to make repeat purchases, which can produce a steady and dependable cash stream (Oliver, 1996). Loyal clients have a tendency to spend more money with a company over time because they trust the brand and are more open to exploring additional goods or services. Compared to keeping current customers, acquiring new one's costs more (Rosenberg, 1984). Generally speaking, acquiring new customers is more expensive than retaining current ones. It takes less marketing and advertising to keep loyal consumers happy and their businesses afloat.

SECURITY

In many aspects, the security of a bank transaction is similar to that of a transaction that normally belongs to a separate business entity. Though a large portion of the population is aware that continuing computer security is necessary for banking software, The rising awareness of this issue may have been influenced by the connection to automated money transfers and the significant reliance on extraordinarily large international personal telephone networks. However, there are other genuine programs in use around the bank. There are several security processes that are similar to those used by another small firm. Customers of the bank may be able to instantly verify the security of bank programs.

VII. THEORETICAL FRAMEWORK

This study looks at how service quality affects customer loyalty and security as dependent variables (customer satisfaction). How each variable in the model is related to the others affects how the impact of service quality on customer satisfaction is calculated.



Fig 1: relations between dependent and independent variable

VIII. HYPOTHESIS DEVELOPMENT

According to Sharma et al. (2020), customer loyalty and customer satisfaction are positively correlated. So, in this study, we can assume:

H1: In Kolkata's banking industry, customer loyalty and customer satisfaction are positively and significantly correlated.

According to a study by Rama and Barusman (2019), customer satisfaction and security have a substantial relationship. We will assume that, for the purposes of this study:

H2: In the financial sector of Kolkata, customer loyalty and customer satisfaction are positively and significantly correlated.

According to a study by de Ruyter et al. (1997), using a modified SERVQUAL scale, he found that customer pleasure and service quality are positively correlated. Therefore, we will assume the following in this study:

H3: Customer satisfaction and service quality in Kolkata's banking industry have an important and positive connection.

IX. METHODOLOGY

DESCRIPTIVE ANALYSIS

Identifying trends and connections in recent and past data is the objective of descriptive analytics. because it doesn't delve deeper; it just highlights relationships and patterns. It's sometimes called the most fundamental type of statistical analysis. Inferential descriptive statistics will be employed. The premise of the research structure will be assessed using a variety of statistical validity tests and examinations, including descriptive analyses, regression tests, correlation tests, and reliability tests.

Normality

to ascertain whether or not a normal distribution appropriately describes a given data set, statisticians employ the normality test. The skewness and kurtosis tests, among others, will be employed in the current study to determine the normalcy and form of a data distribution. Finding necessary and sufficient conditions to ensure that all parameter estimations are asymptotically normal under non-Normality is challenging.

A measure of an unbalanced or distorted symmetrical distribution in a collection of data is called skewness. Skewness is the term used to describe when the data points on a bell-shaped curve are not equally distributed on the left and right sides of the median. If the bell curve is skewed to the right or left, it is said to be skewed. There are different degrees of

left (negative) or right (positive) skewness in distributions. A distribution with a bell shape is regular and has zero skewness.

A metric called kurtosis shows how near a normal distribution heavy- or light-tailed data points are. Stated differently, large outliers or heavy tails are more likely to occur in data sets with a high kurtosis. There are frequently few outliers and light tails in data sets with low kurtosis. An even distribution would be the worst-case situation. In case the normal distribution the value of kurtosis is 0. Additionally, kurtosis describes how peaked or flat the distribution is, so high peak data is referred to as leptokurtic. The extreme flatness data is referred to as Platykurtic, and the ideal normal distribution of the dataset is called Mesokurtic, (Michael George Bulmer, 1979). The general ± 3 cut-off for kurtosis. According to George and Mallery (2010), asymmetry and kurtosis values between -2 and +2 are suitable for illustrating a normal univariate distribution. The data is deemed normal if the skewness and kurtosis, respectively, are between -2 and +2 and -7 and +7 (Hair et al, 2010).

Levene's test

Using Levene's test, an inferential statistic, statisticians can determine if the variances of a variable measured for two or more groups are the same. Many commonly used statistical methods assume that the populations from which the samples were drawn have identical variances. The Levene test is used to verify this assumption. The letter F represents Levene's test, which is used to determine an observation's absolute deviation from its group means. (Schultz, 1985). Levene's test uses the absolute value of the difference between a score and the mean of the group to which it corresponds as the dependent variable, much like a one-way between-groups analysis of variance (ANOVA) (O'Brien, 2007).

Multicollinearity

In a regression model, it often occurs when there is a correlation between the independent variables. This link is unexpected because the independent variables are assumed to be independent. High correlation may make it challenging to anticipate model results with precision. The degree of multi-collinearity is evaluated by the variance inflation factor (VIF), which is often used to determine how much an independent variable interacts with the other independent variables in a regression model. Consequently, multi-collinearity is deemed substantial and ought to be decreased by eliminating any number of variables if the VIF score approaches 10 (O'Brien, 2007).

CORRELATION ANALYSIS

A type of bivariate analysis known as "correlation" evaluates the presence and strength of a relationship between two variables. The value of the correlation coefficient might range from +1 to -1, depending on how strong the association is. A value of 1 indicates the total degree of correlation between the two variables. As the correlation coefficient number gets closer to zero, the relationship between the two variables will become less strong. The coefficient's sign indicates the direction of the link; a + sign denotes a positive relationship, and a - sign denotes a negative relationship. More relationships are a sign of greater accuracy. The magnitude of the correlation value also indicates how accurate the forecast is in the specified direction. (Reinard, 2006).

Using Losh's (2004) correlation interpretation guide, the association measures are explained as follows to make clear how the independent factors and dependent variables relate to one another. "Perfect" relationship with $r = 1.0$ "Very strong" connection of 0.76 to 0.99 Relationship: "Strong": 0.51 to 0.75. "Moderate" relationship: 0.26 to 0.50. "Weak" connection, 0.11 to 0.25. "Very weak" link between 0.01 and 0.10. Likewise, 0 means "No relationship" (Reinard, 2006).

REGRESSION ANALYSIS

A statistical technique for displaying the relationship between two or more variables is regression analysis. The method looks at the relationship between the independent and dependent variables using frequently shown graphs. When the dependent variable(s) changes, regression analysis seeks out the variables that have the biggest impact on the independent variable(s). While non-linear regression is used to assess associations that don't follow a straight line, multiple regression analysis is used to look at correlations involving more than two variables. (Buglear, 2001).

X. FINDINGS AND THE ANALYSIS

As previously mentioned, in order to address the research objective and test the hypotheses that have previously surfaced in this study, the existing data will be analyzed using SPSS version 26 using Several statistical analyses, such as those pertaining to descriptive statistics, normality, multicollinearity, correlation analysis, linearity, and multiple regression, are pertinent to the study's main objective.

		Customer Satisfaction	Service Quality	Customer Loyalty	Security
N	Valid	203	203	203	203
	Missing	0	0	0	0
Mean		4.14	3.96	4.16	4.31
Std. Deviation		.727	.798	.767	.748
Minimum		3	3	3	3
Maximum		5	5	5	5

Table 1: descriptive statistics table

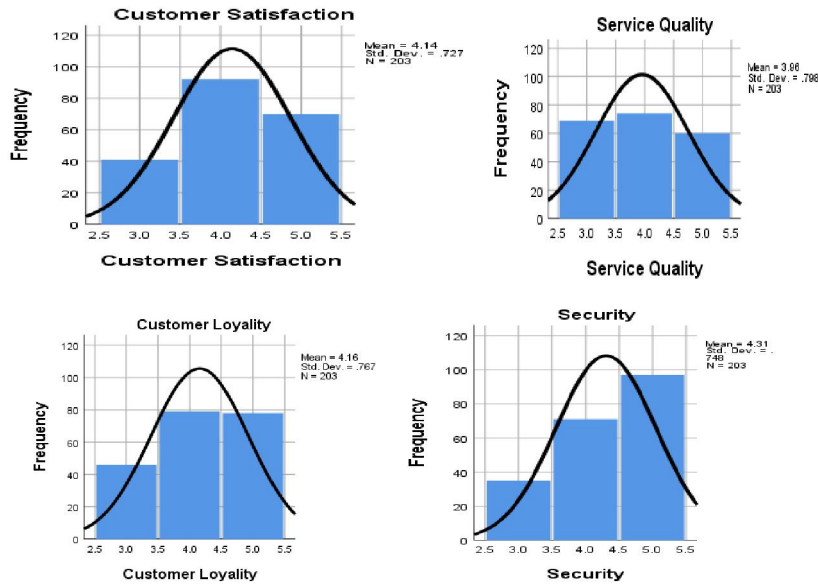
Table 1 shows the data of 203 individuals in descriptive statistics. The dependent variable, customer satisfaction, has a mean of 4.14 and a standard deviation of 0.727. The maximum and minimum values are 3 and 5. One of the independent variables, service quality, shows a mean value of 3.96 with a standard deviation of 0.798. The minimum and maximum values for service quality are 3 and 5. Another two independent variables are customer loyalty (mean 4.16, standard deviation 0.767) and security (mean 4.31, standard deviation 0.748). The minimum and maximum values for both variables are 3 and 5, respectively.

Data distribution

		Customer Satisfaction	Service Quality	Customer Loyalty	Security
N	Valid	203	203	203	203
	Missing	0	0	0	0
Skewness		-.226	.080	-.277	-.566
Std. Error of Skewness		.171	.171	.171	.171
Kurtosis		-1.081	-1.423	-1.252	-1.013
Std. Error of Kurtosis		.340	.340	.340	.340

Table 2: Skewness and kurtosis analysis

As per Table 2, the skewness values of customer satisfaction, service quality, customer loyalty, and security are -0.226, 0.080, -0.277, and -0.566 (histograms: 1, 2, 3, 4), respectively, on the basis of the standard error of skewness 0.171. That means the distribution of variables with (-) values is negatively skewed. In simple terms, the data points are clustered towards the right-handed side of the distribution, and some very low numbers of data points shift the mean value towards the left. The kurtosis value of customer satisfaction, service quality, customer loyalty, and security is negative: -1.081, -1.423, -1.252, -1.013; all of this distribution is platykurtic. The standard error of distribution for kurtosis is 0.340. All of these histograms are shown below. Hence, the assumptions of normality are not violated for this data set.



		Levene Statistic	df1	df2	Sig.
Customer Satisfaction	Based on Mean	5.161	2	200	.007
	Based on Median	3.719	2	200	.026
	Based on Median and with adjusted df	3.719	2	199.284	.026
	Based on trimmed mean	5.200	2	200	.006

Table 3: Test of Homogeneity of Variance

Table 3 demonstrates that the variances are not comparable since the significance level is less than 0.05. $F(2, 200) = 5.161, p = 0.007$.

Multicollinearity test

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	1.585	.339		4.670	.000	.915	2.254		
Service Quality	.053	.058	.059	.920	.359	-.061	.168	.926	1.080
Customer Loyalty	.283	.064	.298	4.428	.000	.157	.409	.827	1.209
Security	.272	.068	.280	4.016	.000	.138	.406	.774	1.292

a. Dependent Variable: Customer Satisfaction

Table 4: Multicollinearity test

As per the analysis of Table 4, there are multicollinearity issues in the data set. The value for the VIF of all independent variables is 1.080, 1.210, and 1.292. These values are less than 10, so the prediction of multicollinearity is not violated for this data set.

Correlation analysis

After the analysis of normality, homogeneity, and multicollinearity, we are now going to analyze the relationships between dependent and independent variables. For this analysis, we shall use Pearson’s correlation method, which is most commonly used for this purpose.

Table 5 demonstrates that there is a strong statistical link and a positive, highly moderate association between customer happiness and customer loyalty ($r = 0.421, p < 0.01$). However, there is a weak correlation between service quality and customer happiness ($r = 0.165, p < 0.001$). Customers' happiness and security have a favorable and very modest link. ($r = 0.420, p < 0.01$). The table also shows that the relationship between customer loyalty and service quality is also highly moderate ($r = 0.416, p < 0.01$). Conversely, there is a positive but weak association between values and customer loyalty and security ($r = 0.100, p > 0.77$). However, there is a positive and moderate association in terms of values between security and service quality ($r = 0.272, p < 0.001$).

		Customer Satisfaction	Service Quality	Customer Loyalty	Security
Customer Satisfaction	Pearson Correlation	1	.165**	.421**	.420**
	Sig. (1-tailed)		.009	.000	.000
Service Quality	Pearson Correlation	.165**	1	.100	.272**
	Sig. (1-tailed)	.009		.077	.000
Customer Loyalty	Pearson Correlation	.421**	.100	1	.416**
	Sig. (1-tailed)	.000	.077		.000
Security	Pearson Correlation	.420**	.272**	.416**	1
	Sig. (1-tailed)	.000	.000	.000	

** . Correlation is significant at the 0.01 level (1-tailed).

Table 5: correlation analysis

ANOVA ANALYSIS

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26.996	3	8.999	22.423	.000 ^b
	Residual	79.861	199	.401		
	Total	106.857	202			

a. Dependent Variable: Customer Satisfaction

b. Predictors: (Constant), Security, Service Quality , Customer Loyalty

Table 6: ANOVA test between variables

The ANOVA test provides every model's inferential test. The rows of f and df denote how good the model is. Although each predictor variable has a varied degree of significance as an indicator of the result of customer satisfaction, their combined influence is greater on the dependent variable, and it is presented as ($F = 22.423, df = 3, p < 0.05$) as per table 6. In this case, the variables that are utilized as predictors are listed in a multiple regression test. As a result, there are three predictor variables: service quality, customer security, and customer loyalty. Customer happiness, on the other hand, is the sole outcome variable.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.503 ^a	.253	.241	.633

a. Predictors: (Constant), Security, Service Quality, Customer Loyalty

Table 7: Model Summary

The summary of the regression model, together with R, R square, corrected R square, and the estimate's standard error, are shown in Table 7. Here R represents the multiple correlation coefficients with values of R = 0.503. R square is represented to measure how much dependent variable is accounted for in the model. The value of R square is 0.253. About 25.3% of customer happiness, as predicted by three independent factors, is explained by it. Adjusted R squared is used to try and take the model's complexity into account. More complex models will explain more variance than simpler models. With a 1% change in three independent variables, Table 7's adjusted R square value of 0.241 significantly explains 24.1% of the variance in customer satisfaction. R square values should be almost the same, and adjusted R square shows that models are highly fit.

COEFFICIENT ANALYSIS

Table 4 shows that all models have p values less than 0.05 and are statistically significant, with the exception of service quality (0.359), which indicates that security and customer loyalty have a higher impact on customer satisfaction than does service quality.

XI. DISCUSSION OF FINDINGS

From the table of multicollinearity test result indicates that change in 1% of customer loyalty increase of 29.8 % of customer satisfactions. Between client loyalty and satisfaction, there is a strong and positive association (t- statistics = 4.428, $p < 0.01$). this result suggested that the customer loyalty is major influencer of customer satisfaction. This result also supported the previous study of (Sharma et al., 2020). So, the first hypothesis **“H1: In Kolkata's banking industry, Customer loyalty and customer satisfaction are positively and significantly correlated”** is accepted.

On the other side, 1% changes in security increase customer satisfaction by 28%. So, there is a positive and significant correlation between customer satisfaction and security (t-statistics = 4.016, $p < 0.01$). So, the influence of security on customer satisfaction is almost the same as customer loyalty. Hence, the second hypothesis, **“H2: In the financial sector of Kolkata, customer loyalty and customer satisfaction are positively and significantly correlated,”** is accepted too.

According to t statistics = 0.920, $p > 0.01$, a 1% change in service quality results in an increase of 5.9% in customer satisfaction. The relationship between customer happiness and service quality is positively correlated, but not very significantly. So, the third hypothesis, **“H3: Customer satisfaction and service quality in Kolkata's banking industry have an important and positive connection,”** is partially, but not completely, accepted.

XII. CONCLUSION AND RECOMMENDATIONS

The study's goal is to accomplish the following goals: 1. To identify the key elements impacting customer satisfaction in Kolkata's commercial banking 2. To evaluate the amount of customer loyalty for Kolkata's banking services. 3. To determine the satisfaction level of customers with the commercial bank's level of service in Kolkata. 4. To measure the extent of client impressions regarding security in commercial banks in Kolkata

The study's goal, which had a favorable association, was attained. The study's goal was as follows:

The main factor that has the most impact on customer satisfaction is customer loyalty. The statistics indicate that 1% changes in customer loyalty lead to a 29.8% increase in customer satisfaction. This result suggests that this is the most influential factor for customer satisfaction.

The degree of customer loyalty in the financial sector in Kolkata is 0.298, which means a 1% increase in customer loyalty will increase 29.8% of customer satisfaction.

The degree of service quality in banks in Kolkata is 0.059, which means a 1% change in service quality will change 5.9% of customer satisfaction levels.

It evaluated customer satisfaction with the security provided by Kolkata's bank. The degree of security is 0.280, which means 1% changes in security increase 28% of customer satisfaction.

With such a wide range of responses, public and commercial banks must consider the weak points in order to meet the needs of their clients. Therefore, in order for banks to succeed in the banking industry, they must either match or surpass their customers' expectations in terms of service. This study provides bank managers and other policymakers with some guidance for making decisions that will raise the caliber of services provided by Kolkata's banking sector.

REFERANCES

- [1] P. Asubonteng, K. J. McCleary, and J. E. Swan, "SERVQUAL revisited: a critical review of service quality," *Journal of Services Marketing*, vol. 10, no. 6, pp. 62-81, 1996
- [2] L. Aldisert, "Customer service or customer satisfaction?," *Bank Marketing*, vol. 31, no. 5, p. 55, 1999.
- [3] A. Beerli, J. D. Martin, and A. Quintana, "A model of customer loyalty in the retail banking market," *European Journal of Marketing*, vol. 38, no. 1/2, pp. 253-275, 2004.
- [4] J. F. Hair and W. C. Black, with contributions from B. J. Babin and R. E. Anderson, "Multivariate Data Analysis," 2010.
- [5] S. Hokanson, "The deeper you analyze, the more you satisfy customers," *Marketing News*, vol. 29, no. 1, pp. 16, 1995.
- [6] B. A. Richardson and C. G. Robinson, "The impact of internal marketing on customer service in a retail bank," *International Journal of Bank Marketing*, vol. 4, no. 5, pp. 3-30, 1986.
- [7] L. J. Rosenberg and J. A. Czepiel, "A marketing approach for customer retention," *Journal of Consumer Marketing*, vol. 1, no. 2, pp. 45-51, 1984.
- [8] M. M. Yasin, J. Alavi, M. Kunt, and T. W. Zimmerer, "TQM practices in service organizations: an exploratory study into the implementation, outcome and effectiveness," *Managing Service Quality: An International Journal*, vol. 14, no. 5, pp. 377-389, 2004.
- [9] M. Zairi, "Managing customer dissatisfaction through effective complaints management systems," *The TQM Magazine*, vol. 12, no. 5, pp. 331-337, 2000.
- [10] R. Wild, "Operations management : a policy framework," , 1980, Available: <https://cir.nii.ac.jp/crid/1130282270155006720>
- [11] J. Buglear, *Stats means business : a guide to business statistics*. Oxford: Elsevier, 2007.
- [12] G. A. Churchill and C. Surprenant, "An Investigation into the Determinants of Customer Satisfaction," *Journal of Marketing Research*, vol. 19, no. 4, pp. 491-504, Nov. 1982, doi: <https://doi.org/10.1177/002224378201900410>.
- [13] K. de Ruyter, J. Bloemer, and P. Peeters, "Merging service quality and service satisfaction. An empirical test of an integrative model," *Journal of Economic Psychology*, vol. 18, no. 4, pp. 387-406, Jun. 1997, doi: [https://doi.org/10.1016/s0167-4870\(97\)00014-7](https://doi.org/10.1016/s0167-4870(97)00014-7).
- [14] D. George and P. Mallery, *SPSS for Windows step by step : a simple guide and reference, 15.0 update*. Boston: Pearson, 2008.
- [15] S.-C. Hong and Y. J. James. Goo, "A Causal Model of Customer Loyalty in Professional Service Firms: An Empirical Study - ProQuest," www.proquest.com, 2004. <https://www.proquest.com/openview/e2059cee5eae1ea7d43870757b656d1/1?pq-origsite=gscholar&cbl=5703>
- [16] Michael George Bulmer, *Principles of statistics*. New York: Dover Publ, 1979.
- [17] R. M. O'brien, "A caution regarding rules of thumb for variance inflation factors," *Quality & Quantity*, vol. 41, no. 5, pp. 673-690, Mar. 2007.
- [18] R. L. Oliver, *Satisfaction: a behavioral perspective on the consumer*. Armonk, N.Y. M.E. Sharpe, 1997.
- [19] R. A. Peterson and W. R. Wilson, "Measuring customer satisfaction: Fact and artifact," *Journal of the Academy of Marketing Science*, vol. 20, no. 1, pp. 61-71, Dec. 1992, doi: <https://doi.org/10.1007/bf02723476>.
- [20] A. R. Putra Barusman, "The Effect of Security, Service Quality, Operations and Information Management, Reliability & Trustworthiness on E-Loyalty moderated by Customer Satisfaction on the Online Shopping Website," *core.ac.uk*, vol. 8, no. 6, 2019, Available: <https://core.ac.uk/reader/276648470>
- [21] J. C. Reinard, *Communication research statistics*. Thousand Oaks, Calif.: Sage Publications, 2006.

- [22].L. F. S, "The Incline of Quality," *Harv. Bus. Rev.*, vol. 0, pp. 163–171, 1982, Available: <https://cir.nii.ac.jp/crid/1572543026348516608>
- [23].B. B. Schultz, "Levene's Test for Relative Variation," *Systematic Biology*, vol. 34, no. 4, pp. 449–456, Dec. 1985, doi: <https://doi.org/10.1093/sysbio/34.4.449>.
- [24].J. L. M. Tam, "Customer Satisfaction, Service Quality and Perceived Value: An Integrative Model," *Journal of Marketing Management*, vol. 20, no. 7–8, pp. 897–917, Aug. 2004, doi: <https://doi.org/10.1362/0267257041838719>.
- [25].P. C. Verhoef, P. H. Franses, and B. Donkers, "Changing Perceptions and Changing Behavior in Customer Relationships," *Marketing Letters*, vol. 13, no. 2, pp. 121–134, 2002, doi: <https://doi.org/10.1023/a:1016093819299>.