CHAPTER 3
RESEARCH METHODOLOGY

The methodology of a study is a detailed explanation of the reasoning that led to the selection of particular procedures to be used (Crotty, 1998). The present chapter provides an overview of the research methods employed in the study. The chapter consists of two sections based on the objectives. The first section deals with the financial aspect and the second section deals with the employees and customers' aspect.

3.1 Financial Aspect

For the first objective, the research design is descriptive. The research was undertaken to find the pre-merger and post-merger financial position of banks under the merger in 2020. The study aims to undertake a comparative analysis of the financial position of the bank during both time periods. The population consisting of anchor banks under the study are –

1. Punjab National Bank
2. Canara Bank
3. Union Bank of India
4. Indian Bank

3.1.1 Period of the Study

The secondary data for the fulfilment of objective 1, has been collected from 2018-19 to 2021-22. Two years, i.e., 2018-19 to 2019-20 for pre-merger analysis, and two years after the merger, i.e., 2020-21 to 2021-22 for post-merger financial performance analysis.

3.1.2 Data Sources

For the study, secondary data was collected from the official website of RBI and the Annual reports of the banks under the study.

3.1.3 CAMEL Model

For the comparative pre and post-merger analysis, the CAMEL model has been taken into consideration (refer to Section 4.1). The CAMEL model is a widely acknowledged

international rating framework employed by bank regulators to assess and categorize the overall financial health of a bank. The model consists of five parameters namely - Capital Adequacy, Asset Quality, Management Efficiency, Earnings Quality, and Liquidity as represented in Fig. 4.1.

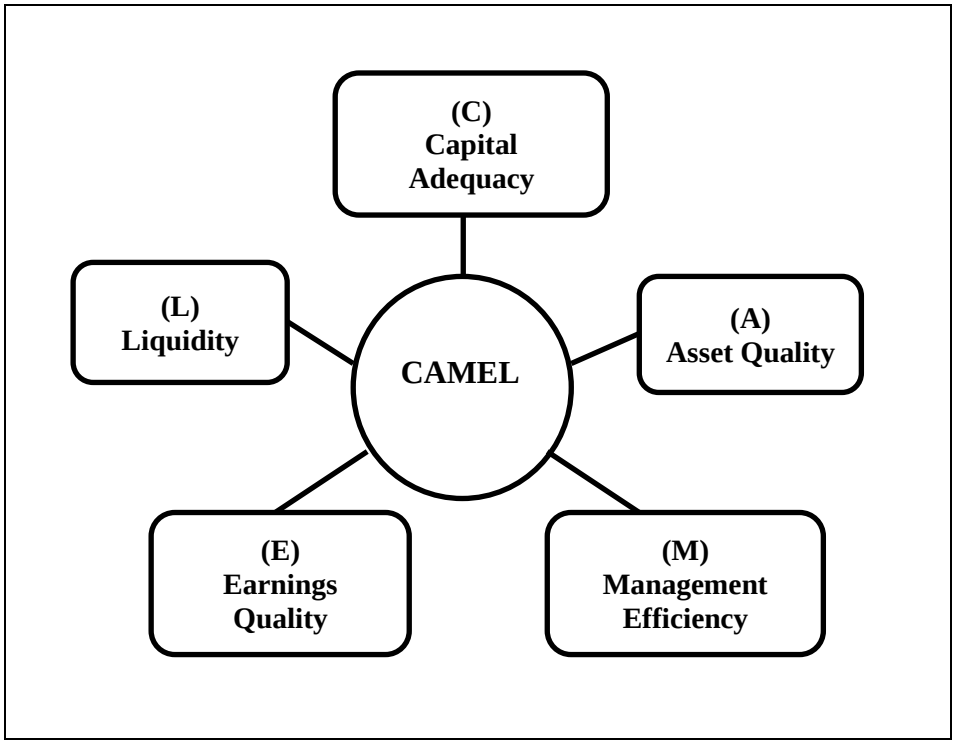

Figure 3.1 CAMEL Model

1. **Capital Adequacy:**

   Capital adequacy demonstrates the bank's financial strength. It determines if a bank's capital is sufficient to absorb risks and losses. It also assesses the bank's capacity to manage and satisfy the necessity for extra capital. The ratios used for determining capital adequacy are:

   - Capital Adequacy Ratio (refer Section 4.2.1)
   - Debt Equity Ratio (refer Section 4.2.2)
   - Total Advances to Total Assets Ratio (refer Section 4.2.3)
   - Total Equity to Total Assets Ratio (refer Section 4.2.4)

2. **Asset Quality:**

   The asset quality component reflects the impact of assets on bank earnings. It is determined by the quality of bank advances and investments. The worse the quality of assets, the higher the risk of credit and investment. The ratios used for determining asset quality parameter are:

   - Net NPA to Net Advances Ratio (refer Section 4.3.1)
   - Total Investment to Total Assets (refer Section 4.3.2)
   - Net NPA to Total Assets Ratio (refer Section 4.3.3)
   - Gross NPA to Gross Advances (refer Section 4.3.4)

3. **Management efficiency:**

   Management efficiency denotes management's capacity to maximize profit by managing and controlling risk while capitalizing on opportunities. The ratios used to determine management efficiency are:

   - Total Advances to Total Deposits Ratio (refer Section 4.4.1)
   - Business per Employee (refer Section 4.4.2)
   - Profit per Employee (refer Section 4.4.3)
   - Total Expenditure to Total Income Ratio (refer Section 4.4.4)
   - Total Income to Total Assets Ratio (refer Section 4.4.5)

4. **Earnings Quality:**

   Earnings quality indicates a bank's capacity to generate consistently and improve its earnings in the future. It represents the banks' profitability status. The ratios used to determine earning quality are:

   - Return on Equity (refer Section 4.5.1)
   - Net Interest Margin (refer Section 4.5.2)
   - Interest Income to Total Income (refer Section 4.5.3)
   - Interest Income to Total Assets (refer Section 4.5.4)

5. **Liquidity:**

   Liquidity refers to the ability of a bank to fulfill its monetary commitments within the designated time frame. The ratios used in determining liquidity parameter are:

   - Cash Deposit Ratio (refer Section 4.6.1)

- Liquid Assets to Total Assets (refer Section 4.6.2)
- Liquid Assets to Total Deposits (refer Section 4.6.3)

Table 3.1 lists the ratios used in the CAMEL model along with the formula.

Table 3.1 CAMEL Model Ratios used in the study

Parameter	**Financial Ratios**	**Formula**	**Source**
Capital Adequacy	Capital Adequacy Ratio	$\frac{Tier\ 1\ Capital + Tier\ 2\ capital}{Risk - weighted\ Assets}\ x\ 100$	Madura (2008), Bhole and Mahakud (2011), Agarwal (2017)
	Debt Equity Ratio	$\frac{Debt}{Equity}$ Whereas, Debt = Deposits + Borrowings + Other Liabilities and Provisions Equity = Equity Capital + Reserves and Surplus	Agarwal (2017)
	Total Advances to Total Assets Ratio	$\frac{Advances}{Total\ Assets}\ x\ 100$	Agarwal (2017), Abdulwahab and Gnaguly (2017)
	Total Equity to Total Assets Ratio	$\frac{Equity}{Total\ Assets}\ x\ 100$	Agarwal (2017), Abdulwahab and Gnaguly (2017)
Asset Quality	Net NPA to Net Advances Ratio	$\frac{Net\ NPA}{Net\ Advances}\ x\ 100$	Srivastava and Nigam (2010), Bhole and Mahakud (2011)
	Total Investment to Total Assets	$\frac{Total\ Investment}{Total\ Assets}\ x\ 100$	Paul (2007)
	Net NPA to Total Assets ratio	$\frac{Net\ NPA}{Total\ Assets}\ x\ 100$	Bhole and Mahakud (2011), Agarwal (2017)
	Gross NPA to Gross Advances	$\frac{Gross\ NPA}{Gross\ Advances}\ x\ 100$	Srivastava and Nigam (2010), Bhole and Mahakud (2011)
Management Efficiency	Business per Employee	$\frac{Total\ business\ of\ the\ bank}{Total\ number\ of\ employees}\ x\ 100$	Srivastava and Nigam (2010)

	Profit per Employee	$\frac{Net\ profit}{Total\ number\ of\ employees}\ x\ 100$	Srivastava and Nigam (2010)
	Total Expenditure to Total Income Ratio	$\frac{Total\ Expenditure}{Total\ Income}\ x\ 100$ Total Expenditure = Total interest expended + Total operating expenses + Provisions and contingencies	Nimalathasan (2008)
	Total Advances to Total Deposits ratio	$\frac{Advances}{Deposit}\ x\ 100$	Agarwal (2017)
	Total Income to Total Assets Ratio	$\frac{Total\ Income}{Total\ Assets}\ x\ 100$	Paul (2007)
Earnings	Return on Equity	$\frac{Net\ Profit}{Equity}\ x\ 100$	Cornett et al. (2006), Madura (2008),
	Net Interest Margin	$\frac{Interest\ Income - Interest\ expended}{Interest\ earning\ assets}\ x\ 100$	Madura (2008), Nimalathasan (2008)
	Interest Income to Total Income	$\frac{Interest\ Income}{Total\ Income}\ x\ 100$	Madura (2008), Abdulwahab and Gnaguly (2017)
	Interest Income to Total Assets	$\frac{Interest\ Income}{Total\ Assets}\ x\ 100$	Bhole and Mahakud (2011)
Liquidity	Cash Deposit Ratio Assets	$\frac{Cash\ and\ Bank\ balance\ with\ RBI}{Total\ deposits}\ x\ 100$	Paul (2007)
	Liquid Assets to Total Assets	$\frac{Liquid\ Assets}{Total\ Assets}\ x\ 100$	Agarwal (2017)
	Liquid Assets to Total Deposits	$\frac{Liquid\ Assets}{Total\ Deposits}\ x\ 100$	Agarwal (2017)

(Source: Compiled by the researcher)

3.1.4 Statistical Tools:

To analyze the financial data based on CAMEL Model ratios, descriptive statistical tool – mean has been used to analyze the collected data under the study. Also, paired t test was applied to compare the pre-merger and post-merger financial performance of banks.

3.2. Employees and Customers Aspect

This section deals with the research methodology for objectives 2 and 3. The research design is descriptive. The research was done to study the views and experiences of employees and customers on the bank merger of 2020. The banks under the study are presented in Table 3.2.

Table 3.2 Banks under the study

Anchor Bank	**Amalgamating Bank(s)**
Punjab National Bank	Oriental Bank of Commerce, United Bank of India
Canara Bank	Syndicate Bank
Union Bank of India	Andhra Bank, Corporation Bank
Indian Bank	Allahabad Bank

(Source: www.pib.gov.in)

3.2.1 Data Sources:

Primary data were collected through the survey. Separate surveys were conducted for employees and customers using structured questionnaires.

3.2.2 Population:

Objective 2: The total number of employees consisting of officers and clerks working in the local branches of ten banks under the four bank merger cases constitutes the population of the study.

Objective 3: The total number of customers availing services from the above tabulated ten banks constitutes the population.

3.2.3 Sampling Elements:

Objective 2: Employees were the sampling element for objective 2. These employees include officers and clerks working at the local branch level of the ten banks under the study.

Objective 3: Customers availing services from the selected banks were the sampling element.

3.2.4 Sampling Units:

The local branch of each bank constituted the sampling unit for objectives 2 & 3, i.e., for the employees and customers respectively.

3.2.5 Sampling Technique:

Snowball sampling was adopted for choosing a bank branch in a particular district. The reason for adopting snowball sampling is as follows. As the part of merging process, many branches that were in close proximity to one another were shut down. Real-time data was thus not available for bank branches. First, a branch was chosen at a particular district of a particular bank and then the employees were asked to name the bank branches in operation in that district.

Objective 2: After branch selection, employees were chosen based on the convenience sampling technique. Convenience meant that among the respondents addressed, only those who consented to volunteer and be a part of the study were chosen. The branch manager's permission was obtained in advance before the data collection, and he/she was assured that the information would be utilized exclusively for academic research.

Objective 3: After branch selection, customers were chosen based on the convenience sampling technique. Convenience meant that among the respondents addressed, only those who consented to volunteer and be a part of the study were chosen. The branch manager's permission was obtained in advance to distribute questionnaires to customers within the bank premises before the data collection. Customers were assured that the information would be utilized exclusively for academic research.

3.2.6 Variables

Objective 2: Variables relating to employees were identified based on the literature review. The demographic variables used in the study for the employees are represented in Table 3.3. To assess the perception and experience on the bank merger of 2020, the questionnaire was divided into five dimensions namely (Table 3.4):

i) Communication and awareness about the merger
ii) General view on merger
iii) Benefits pertaining to the merger
iv) Stress associated with the merger
v) Job satisfaction after the merger

Table 3.3 Demographic variables used to study employees' aspect

Categories	Variables	Source
Demographic	Age	Kalaichelvan (2011), Goyal and Joshi (2012), Gaur (2016), Saxena (2015)
	Gender	Kalaichelvan (2011), Goyal and Joshi (2012), Saxena (2015), Gaur (2016)
	Income	Kalaichelvan (2011), Saxena (2015)
	Marital Status	Kalaichelvan (2011)
	Academic Qualification	Kalaichelvan (2011), Saxena (2015)
	Experience	Kalaichelvan (2011), Saxena (2015)
	Designation	Goyal and Joshi (2012), Kalaichelvan (2011), Saxena (2015)

Table 3.4 Variables used to study employees' views and experience on merger

Scale/Dimension	Item	Source
Communication and awareness about the merger	Clarity about the objective	Kalaichelvan (2011), Mirvis (1985)
	Proper information communicated about changes	Appelbaum et al. (2000), Bhaskar et al. (1985), Schweiger et al. (1987)
	Clarity in directions from management throughout the merger process	Goyal and Joshi (2012)
	Timely information communication throughout the process.	Goyal and Joshi (2012)
	Awareness about changes in the Bank's identity	Gaur (2016), Goyal and Joshi (2012)
	Increased interaction with other bank(s).	Researchers' own
General view on merger	Beneficial for the economic growth of the nation.	Kavishwar (2014), Petkar (2014)
	Improve the financial condition of banks.	Petkar (2014)
	Help the banking sector to have a strong global presence.	Kalaichelvan (2011)
	Benefit both organization and employees	Petkar (2014)
	Positive changes in the quality of banking services.	Kalaichelvan (2011)
	Favour current merger plan.	Goyal and Joshi (2012)
	Improvement in working condition	Cartwright and Cooper (1993)
	Learn new things	Researchers' own

Benefits pertaining to the merger	Training and development	Elliot and Maples (1991)
	Better fringe benefits and perks introduced	Elliot and Maples (1991)
	Decrease in workload	Schweiger et al. (1987)
	Reduced working hours	Schweiger et al. (1987)
	Improvement in work culture	Kalaichelvan (2011)
	High degree of belongingness with co-workers	Elliot and Maples (1991)
	Better policies favouring employees introduced	Elliot and Maples (1991)
	Power (autonomy) increased after the merger.	Kalaichelvan (2011)
	Better chance of growth in career	Schweiger et al. (1987)
	Overall employee development.	Goyal and Joshi (2012)
Stress associated with the merger	The feeling of loss of identity	Schweiger et al. (1987)
	Feeling of helplessness	Schweiger et al. (1987)
	Cultural mismatch	Cartwright and Cooper (1993)
	Transfer to other place of work	Schweiger et al. (1987)
	Transfer to other department	Schweiger et al. (1987)
	Change in Status	Schweiger et al. (1987)
	Loss of power (autonomy)	Cartwright and Cooper (1993), Schweiger et al. (1987)
	Loss of commitment towards job and bank	Ojedokun (2018)
	Changes in job responsibilities	Schweiger et al. (1987)
	Increase in workload	Goyal and Joshi (2012), Panchal and Cartwright (2001)
	Increase in working hours	Goyal and Joshi (2012)
	Reduction in salary and other benefits post-merger.	Goyal and Joshi (2012)
	Job interference with family life	Panchal and Cartwright (2001), Schweiger et al. (1987)
	More privilege to employees of anchor bank	Schweiger et al. (1987)
	Conflicts and disputes among employees.	Gaur (2016)
	Feeling left out after merger.	Goyal and Joshi (2012)
	Interrupted in career growth.	Schweiger et al. (1987)
	Difficulty in adapting to the work culture	Goyal and Joshi (2012)
	Stress about staff changes (Colleagues/boss/subordinates)	Schweiger et al. (1987)
	Salary structure	Kalaichelvan (2011), Schweiger et al. (1987)
	Fairness of promotion and incentives	Schweiger et al. (1987)
	Amount of workload	Goyal and Joshi (2012)
	Degree of autonomy at work	Cartwright and Cooper (1993), Schweiger et al. (1987)
	Working conditions at workplace	Cartwright and Cooper (1993)

Job Satisfaction after merger	Relationship with co-workers	Gaur (2016), Goyal and Joshi (2012), Schweiger et al. (1987)
	Recognition for performing well	Saxena (2015), Schweiger et al. (1987)
	Participation in the organizational decision-making process	Gautam (2016), Saxena (2015)
	Policies to handle conflict and dispute situations in the workplace	Goyal and Joshi (2012)
	Non- interference with family life	Schweiger et al. (1987)
	Happy working at this bank	Kalaichelvan (2011), Saxena (2015)
	Banks always being the first choice	Kalaichelvan (2011)

Objective 3: The demographic variables used to study customers' aspects are represented in Table 3.5. To study customers' views and experience on merger, the questionnaire was divided into five dimensions namely (Table 3.6):

i) Awareness about merger

ii) General view on merger

iii) Benefits pertaining to merger

iv) Problems associated with merger

v) Service Quality

To assess service quality post-merger, the SERVPERF model by Cronin and Taylor (1992), a modified version of the SERVQUAL model has been used. The SERVQUAL model was proposed by Parasuraman et al. (1988) having 22 items that find the discrepancy between the "expected service (ES) and perceived service (PS)". Cronin and Taylor (1992) provided "the basic theoretical foundation for the substitution of the expectations section of SERVQUAL with performance measures". To zero in on how customers perceive the quality of the service provided, they created a performance-based measurement instrument called SERVPERF. SERVPERF is a model for evaluating customer satisfaction with regard to the quality of service provided by the organization.

Table 3.5 Demographic variables used to study customers' aspect

Categories	Variables	Source
Demographic	Age	Urban and Pratt (2000)
	Gender	Khare (2011)
	Education	Urban and Pratt (2000)
	Occupation	Kaynak and Harcar (2005), Spathis et al. (2004)

	Bank visit frequency	Kaynak and Harcar (2005)
	Years of association with the bank	Kaynak and Harcar (2005), Spathis et al. (2004)

Table 3.6 Variables used to study customers' views and experience on merger

Scale/Dimension	Item	Source
Awareness about merger	Clear awareness about Bank merger	Kalaichelvan (2011), Mirvis (1985)
	Clarity about the objective	Kalaichelvan (2011), Mirvis (1985)
	Awareness about changes in the Bank's identity	Gaur (2016), Goyal and Joshi (2012)
General view on merger	Support merger between banks.	Kavishwar (2014)
	Beneficial for economic growth of nation.	Kavishwar (2014), Petkar (2014)
	Improve financial performance of banks.	Petkar (2014)
	Favour current merger.	Goyal and Joshi (2012)
Benefits pertaining to merger	Banking services after merger.	Kavishwar (2014)
	Number of bank products and services.	Javalgi (1992)
	Accessibility to banking services	Kavishwar (2014)
	Disposal of services by bank offline.	Morall (1996)
	Disposal of services by bank online	Kavishwar (2014)
	Change in attitude of staff.	Kavishwar (2014)
	ATM Services	Selvakumar et al. (2018)
Problems associated with merger	Paperwork post-merger.	Researchers' own
	Service quality post-merger.	Kavishwar (2014)
	Transfer of old employees	Researchers' own
	Disposal of bank services via offline mode after merger.	Morall (1996)
	Disposal of bank services via online mode after merger.	Selvakumar et al. (2018)
	Problems using online banking post-merger.	Selvakumar et al. (2018)
	Safety of transactions at risk after merger.	Javalgi (1992)
	Physical facility of Bank	Cronin and Taylor (1992) [SERVPERF Model – 22 items,
	Modern looking equipment.	
	Appearance of bank staff	
	Appeal of the materials associated with the service	
	Provides bank services as promised.	

Service Quality	The bank's interest in solving customers' problems.	a modified version of SERVQUAL model (Parasuraman et al., 1988)]
	Staff performs service right the first time.	
	The bank provides services at the time as promised	
	The bank's insistence on error free records	
	Right information by Staff about services	
	Timely and prompt banking services	
	Cooperation of Bank staff with customers.	
	Prompt response by bank staff	
	Staff readiness to help customers	
	Staff's friendliness and courtesy	
	Safety of transactions with the bank.	
	Experience and knowledge of employees	
	Individual attention by bank.	
	Convenient bank working hours.	
	Staff keeps customers best interest at heart.	
	Personal attention given by staff	
	Efforts by the staff to understand customers' needs	
	Convenient location of Bank ATMs	Farah (2017)
	Convenient location of Bank branches	Farah (2017)
Bank switching intention	Intention to switch bank post-merger	Farah (2017)

(Source: Compiled by the researcher)

3.2.7 Research Instrument:

Questionnaires were used to collect primary data from employees and customers. There is a brief introduction of the researcher followed by the purpose of the research study.

The questionnaire for employees is divided into two sections in relation to mergers in the banking sector. Section A is related to the perception of employees on bank merger. Section A deals with communication and awareness about the bank merger of 2020, the general view on the bank mergers, benefits and stress pertaining to the bank mergers of 2020, job leaving intentions, and their perception if the merger process was smooth. Section B of the questionnaire collects information about the current work experience. It

measures the level of satisfaction among employees post-merger. The questionnaire concluded with some demographic information about the employees.

The questionnaire distributed to customers consisted of several parts. Questions relating to awareness about bank merger, sources of information, the general view on merger, benefits & problems pertaining to merger, bank switching intention, and service quality perception after merger were asked. The questionnaire concluded with some demographic information about the customers.

3.2.8 Period of data collection:

The primary survey was conducted during the financial year 2021-22.

3.2.9 Geographical Location:

For primary data collection, Assam was chosen as the geographical area. Assam is known as the hub of North East India. Districts were first identified and the number of bank branches in each district was collected from State Level Bankers' Committee (SLBC) Report 2018-19, except for Indian Bank which was accessed through "bankifsccode.com", because of the unavailability of information from SLBC Report for the concerned Bank.

Districts were selected based on the availability of bank branches. The districts that had branches of all the ten PSBs under the four merger cases of 2020 were chosen. Thus, as per the criteria mentioned above, four districts selected for data collection were:

i. Tinsukia
ii. Dibrugarh
iii. Kamrup Metro
iv. Jorhat

Table 3.7 Showing District wise Bank Branches in Assam

Sl. No.	District	ALB	AND	CAN	CB	IND*	OBC	PNB	SYN	UNI	UBI
1	Nagaon	2	0	4	2	2	1	7	1	1	14
2	Dhubri	3	0	0	1	0	0	1	0	1	5

3	Sonitpur	2	0	2	1	2	1	4	1	1	9
4	Barpeta	1	0	5	0	1	1	4	1	12	3
5	Cachar	3	0	2	1	1	1	3	1	2	25
6	Kamrup	3	1	3	1	1	0	5	2	2	8
7	**Tinsukia**	4	1	3	1	3	2	6	1	9	21
8	**Dibrugarh**	13	1	5	1	4	1	4	4	4	15
9	**Kamrup Metro**	6	4	18	3	8	5	9	11	14	23
10	Karimganj	2	0	2	0	1	0	2	1	1	14
11	Sivsagar	2	1	3	1	2	0	1	1	1	11
12	**Jorhat**	2	1	5	1	2	1	3	2	3	13
13	Golaghat	4	0	2	0	5	1	2	1	1	11
14	Lakhimpur	6	0	1	0	1	1	1	1	1	14
15	Goalpara	1	0	1	0	0	1	1	1	1	3

(Source: SLBC Report, 2018-19

**Data collected from bankifsccode.com for Indian Bank)*

3.2.10 Sampling Distribution:

There were a total of 237 local branches of ten banks under the study in the selected four districts of Assam as per the SLBC Report. 94 branches were selected proportionately.

Table 3.8 Selected number of local branches across Banks and Districts

Bank	**Tinsukia**	**Dibrugarh**	**Kamrup Metro**	**Jorhat**	**Total**
Allahabad Bank	1	7	1	1	**10**
Andhra Bank	1	1	2	1	**5**
Canara Bank	1	1	10	1	**13**
Corporation Bank	1	1	2	1	**5**
Indian Bank	1	1	4	1	**7**
Oriental Bank of Commerce	1	1	3	1	**6**
Punjab National Bank	2	1	4	1	**8**
Syndicate Bank	1	1	7	1	**10**

Union Bank	3	1	7	1	**12**
United Bank of India	6	3	7	2	**18**
Total	**18**	**18**	**47**	**11**	**94**

(Source: Compiled by the researcher)

3.2.11 Sample Size:

A general "rule of thumb" for choosing the sample size for behavioural research was offered by Roscoe (1975). He claimed that the studies should have a sample size of greater than 30 but fewer than 500. Cochran (1977) developed a formula for calculating sample size in situations with large population

$$n = \frac{z^2 pq}{e^2}$$

"where,

n = sample size

z = critical value of the standard normal distribution for a given confidence interval

p = p is the estimated proportion of an attribute that is present in the population

q = 1-p

e = margin of error or proportion of sampling error"

According to Cochran's formula, in the case of selecting a sample size for an unknown and large population, the confidence interval is set at 95% with a 5% margin of error and assuming a maximum variability of 50% (p=0.5). The calculation for the required sample size is -

z = 1.96 (critical value at 95% confidence level), p = 0.5, q =1-0.5 = 0.5, e = 0.05.

So,

$$n = \frac{(1.96)^2(0.5)(0.5)}{(0.05)^2} = 384.16$$

Thus, the sample size came out to be 384 units.

"Sample sizes of 100=poor, 200=fair, 300=good, 500=very good, 1000 or more = excellent" as per Comrey and Lee (1992). Also, the sample size in related studies (as shown in Table 3.9) confirms the sample size for the present study.

Table 3.9 Sample size in studies relating to employees

Author	Country	Sample Size
Ojedokun (2008)	Nigeria	209
Napier et al. (1992)	US	304
Gautam (2016)	Nepal	180
Bennett and Durkin (2000)	Ireland	200

Similarly, the selected sample size for customers was 400. Considering past literature on bank customers (as shown in Table 3.10) confirms the selected sample size.

Table 3.10 Sample size in studies relating to customers

Author	Country	Sample Size
Tahir and Abu Bakar (2007)	Malaysia	300
Ananth et al. (2011)	India	200
Mishra et al. (2010)	India	387

In the light of the above calculations, the sample size of employees and customers proposed were 384 and 400 respectively. However, due to non-response, the actual data numbers of responses from employees were 312 and customers were 390. The distribution of customers and employees across the four selected districts is presented in Table 3.11.

Table 3.11 Distribution of Customers and Employees across Districts

District	Employees	Customers
Tinsukia	60	72
Dibrugarh	72	75
Kamrup Metro	135	191
Jorhat	45	52
Total	312	390

(Source: Compiled by the researcher)

3.2.12 Statistical Tools

Mean, t test, and ANOVA were used to analyse the primary data. ANOVA and t test were used to check for the differences in perception across demographic variables.

3.3 Pilot Study

Usually, a pilot study is carried out to assess the questionnaire's reliability. The pilot survey aimed to discover: how participants felt about the time needed to answer the questions, whether they found the questions challenging, if the questions effectively distinguished between respondents, and if there were any ways to improve the questionnaire. It was conducted in August 2021. The location of the pilot survey was Guwahati (Kamrup Metro). Total sample for the pilot study were 102 which was divided equally among employees and customers. Bank visits were done to contact the respondents. Structured questionnaire was distributed to the employees and customers for fulfilling objective 2 and 3 respectively. Filling up a questionnaire took about 10 minutes on average. Based on the survey, some questions were deleted due to repetition of words and irrelevancy to the objective. The questionnaire was made simpler for respondents' understandability.

3.4 Reliability Test

Cronbach's Alpha has been used to check the reliability of scales used in the study. The study on employees consisted of five dimensions. The test findings (Table 3.12) showed that all of the scales' Cronbach's alpha values were above 0.70, which is regarded as the minimum acceptable threshold (Fields, 2002). As a result, it can be claimed that the

questionnaire is good and the scales utilized are trustworthy. The test results (Table 3.12) revealed that Cronbach's alpha values for all the scales were more than 0.70, which is considered as minimum acceptable level. Hence, the questionnaire and scales employed can be considered reliable.

Table 3.12 Reliability test results

Employees		Customers	
Scale	Cronbach's Alpha Value	Scale	Cronbach's Alpha Value
Communication and awareness about the merger	.907	Awareness about merger	.822
General view on merger	.948	General view on merger	.860
Benefits pertaining to the merger	.917	Benefits pertaining to the merger	.729
Stress associated with the merger	.898	Problems associated to the merger	.740
Job Satisfaction after merger	.835	Service quality satisfaction	.821

3.5 Normality

To run statistical tests like the one-way ANOVA or t-test, it is important to first ensure that the sample data is representative of a normally distributed population, hence a normality test is done. Many academics, however, have claimed that the violation of the normality assumption shouldn't be too problematic if sufficiently high sample sizes are used (i.e., > 30). This implies that even if the data are not normally distributed, parametric techniques can be employed in the case of samples containing hundreds of observations (Pallant, 2005; Elliot and Woodward, 2007). "It is possible to demonstrate a normal distribution with skewness and kurtosis values between -2 and +2" (George and Mallery, 2010). In the study, normality has been checked using skewness and kurtosis. "Data is deemed normal if the skewness is between 2 and +2 and the kurtosis is between 7 and +7" as argued by Hair et al. (2010) and Bryne (2013). On checking the variables for normality, it was found that the skewness and kurtosis values for all the variables lie in the range of -2 to + 2. Hence, the scales may be considered appropriate for conducting parametric tests.

3.6 Chapter Summary

This chapter lays out the research methodology in detail. Based on the objectives, the methodology has been categorized into five sections. Section 3.1 presents the methodology for measuring the financial performance of banks, before and after the merger. The details regarding the period of the study, data sources, explanation of the CAMEL Model employed in the study along with the financial ratios incorporated and statistical tools employed have been discussed in this section. Section 3.2 presents the methodology for measuring stakeholders' (employees and customers) perception and experience on the merger. The details regarding population, sampling elements, sampling units, sampling technique, data sources, research instrument, period of data collection, geographical location, sampling distribution, sample size, statistical tools, and variables used in the primary data collection and analysis have been discussed. The results of Pilot study have been discussed in Section 3.3. Section 3.4 briefs the reliability test results and Section 3.5 presents the normality test results for the study. In sum, the present chapter describes and defends the research approach taken in this study.