



CHAPTER III

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METHODOLOGY**

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3.1. Methodology:

Mayor and Blackmon (2005) described research as a process of finding out information and investigate the unknown to solve a problem. It involves identifying a problem and understanding what information is relevant to addressing that problem, getting the information and interpreting that information and its context.

There are different methods employed in business and management project work, and the choice made may be different depending on the nature and scope of the research topic, the source of the data to be employed, and the rationale for gathering them, the amount of control prepared to exert in obtaining these data and the assumptions prepared in analyzing them (Jankowioz, 2000).

This research is exploratory and quantitative in nature.

The primary data used in this study was collected through a questionnaire. Information is collected from people involved in the banking sector and customer of banking services. The study area is Assam.

3.2. Research Design:

Research designs are about organizing research activity, including the collection of data in ways that are most likely to achieve the research aims. The collection of data has to be carried out on a scientific basis in order to make sure that these data do reflect, as accurately as possible, the phenomena they measure (Saunders et. al, 2007).

3.3. Questionnaire:

3.3.1. Questionnaire Design Process:

The most common research instruments are the self-administered questionnaires. This is principally used to collect quantitative data but open-ended questions can be used for qualitative data. In order to conduct this research, the researcher designed a questionnaire each for both bank customers and bank managers. Questions included both close ended and scale questions. Questions with Likert Scale have been used to measure expectation and satisfaction level of

customers and bankers. Information has been collected through questionnaires personally from the respondents.

To prepare the questionnaire related to the inconvenience factors of the banking sector, a preliminary study was carried out among a few bank managers selected on the basis of convenience. This was done so that the different inconveniences faced by bankers can be identified which may be considered as variables for developing the questionnaires. The final questionnaire was designed on the basis of the variable found out from preliminary study and also adding variables identified during literature reviews. Variables were converted to statements and a 5 point likertscale was added to each statement.

For customers, variables have been identified from literature review and a questioner was prepared by using those variables. Variables were converted to statements with a 5 point likert scale.

3.3.2. Pilot Survey for the Questionnaires:

In this study, the questionnaires were put through pilot survey using 50 respondents of bank managers and 150 respondents of bank customers. The pilot survey has been conducted on the basis of convenience sampling method. Through this method 50 banks were selected which were nearby and easily accessible and most importantly where customer footfall is very high. The branch managers of each bank were considered the sample for banking questionnaire survey and 3 customers from each bank were selected on judgmental basis for customer survey. Every fifth customer entering the bank for transaction during the peak time was considered for questionnaire administration. This was done to reduce sampling bias during the pilot survey. Necessary modifications have been made after the pilot survey and the resulting modified questionnaires were finalized for final data collection.

3.4. Reliability Test:

Reliability refers to the extent to which data collection techniques or analysis procedures yield consistent findings. The credibility of this research finding is reliable and valid under all contexts. The Cronbach's alpha reliability test is conducted to measure the internal consistency among the group of items. The Cronbach's alpha has been calculated to be 0.70.

3.5.Secondary Data Collection:

Saunders et al, (2007) stated that secondary data can be great tool to compare the findings of the primary data in a way that researcher can place the primary findings within a more general context and triangulate it. The secondary data for this research study was basically obtained from Journals, Text books, conference articles related to the banking industry, and newspaper articles.

3.6. The Population:

As the study involves finding out the inconvenience factor of the banking sector as well as customers, the managers of the branches of different private and public sector banks constitute one set of population for the study. Information related to inconvenience faced by the banking industry was collected from a sample of this set of population.

Another objective of the study is to rank the attributes of the bank on the basis of perceptions of the customers. Hence any individual having a bank account in any of the branches of different banks operating in Assam constitute the second set of population.

3.7.Sampling Method:

It has been found that there are 36 banks operating in Assam. Out of these, 21 are in the Public sector, 12 in the private sector and 3 are cooperative banks. The 36 banks have 1266 branches operating in the State. A district wise distribution of the branches of different banks is given in Table 3.1. For the selection of sample for different branches, the weighted average method of sample size collection is adopted. This method has been adopted in the study analyzing customer satisfaction degree (Cheng Chunmei: Analyzing method research of customer satisfaction degree, Journal of marketing 1990). In weighted average method the average of a quantity is calculated after summing up all the values of the quantity and then dividing it by total numbers. Weighted average is calculated by taking into consideration additional conditions associated with each of the values for the data. Following this method, the sample size has been calculated to be 185. The detail of the distribution of the sample is given in the table 3.1. Within a district, the sample units are selected on the basis of Judgment sampling. The judgment criteria are number of account holder in a branch and the proximity of the one sample branch to the other. The samples were taken in such a way that the distance of one branch to another branch is more than 200 meters.

The sample size for the bank customer is proposed to be 600. Cruch's (1984) recommends that "minimum sample size for quantitative consumer surveys are of order of 300 to 500 respondents". James Bartell, Joe w Kortik and Chadwick C. Higgingin the paper "Determining appropriate sample size in survey research" data were obtained from 600 samples. They calculated the sample size by accepting 95% confidence level, and 4 % margin of error using the following formula.

The square root of sample size=Square root of $(p) * (1-P) * \text{Confidence level}$ divided by the margin of error.

The square root of sample size=square root of $(0.5) * (1-0.5) * 1.96/0.5$

Squaring both sides we get

The sample size=24.5 squared

The sample size=600.

Table 3.1: Distribution of Sample of Various Banks:

Public Banks	Total no of branches in Assam	Weighted Average	Sample Branches	Sample Size
Public Sector Banks				
ALLAHBAD BANK	74	0.06	4.33	4
ANDHRA BANK	5	0.00	0.02	0
BANK OF BARODA	23	0.02	0.42	0
BANK OF INDIA	25	0.02	0.49	1
BANK OF MAHARASTHA	5	0.00	0.02	0
CANARA BANK	27	0.02	0.58	1
CENTRAL BANK OF INDIA CORPORATION	102	0.08	8.22	8
	7	0.01	0.04	0

BANK				
DENA BANK	4	0.00	0.01	0
IDBI BANK	8	0.01	0.05	0
INDIAN BANK	33	0.03	0.86	1
INDIAN OVERSEAS BANK	23	0.02	0.42	0
ORIENTAL BANK OF COMMERCE	8	0.01	0.05	0
PUNJAB &SIND BANK	7	0.01	0.04	0
PUNJAB NATIONAL BANK	63	0.05	3.14	3
SYNDICATE BANK	16	0.01	0.20	0
UCO BANK	46	0.04	1.67	2
UNION BANK OF INDIA	62	0.05	3.04	3
UNITED BANK OF INDIA	192	0.15	29.14	29
VIJAYA BANK	17	0.01	0.23	0
STATE BANK OF INDIA	302	0.24	72.10	72
TOTAL	1049			124
Private Sector Banks				
AXIS BANK	40	0.03	1.26	1
FEDERAL BANK	10	0.01	0.08	0
HDFC BANK	33	0.03	0.86	1
ICICI BANK	33	0.03	0.86	1
INDUSIND BANK	8	0.01	0.05	0
ING VVSYA BANK	1	0.00	0.00	0
KARNATAKA BANK	1	0.00	0.00	0

HSBC BANK	1	0.00	0.00	0
KOTAK MAHINDRA BANK	3	0.00	0.01	0
SOUTH INDIAN BANK	2	0.00	0.00	0
YES BANK	4	0.00	0.01	0
STANDARD CHARTERED BANK	1	0.00	0.00	0
TOTAL	137			3
PRIVATE+PUBLIC	1186			127
Cooperative Banks				
ASSAM COOPERATIVE APEX BANK	45	0.04	1.60	2
LANGPI DIHANGE BANK	35	0.03	0.97	1
TOTAL	80			3
GRAND TOTAL	1266			130

The sampling technique for selecting bank customers is purposive. The sample of the customers was selected from the same branches where information from the managers was collected. This has been done to maintain the consistency between the expectations of the customer and experience of the banking officials. The sampling unit is selected on the judgmental way on the basis of transactions of the respondents in the particular bank.

3.8. Analysis Technique:

For data reduction Factor Analysis was applied. In the part of the study involving inconvenience of bankers used data reduction. Through the rotated component matrix the factors were identified on the basis of loading (more than 0.5). By this process 11 factors were identified and reliability tests were conducted to measure the consistency among the variables. After conducting the reliability test 8 factors came out those were accepted for strategy formulation.

To compare the performance attributes of different banks Radar Diagram is used. Through the diagram it is easier to find out which bank is doing better in which attribute. To find out if any difference in perception among customers of different demographic groups and usage of banking services, ANOVA has been carried out.

To find out importance of customers on different attribute for different demographic factors and different service using pattern, ANOVA has been carried out.

Finally to find out the gap between Importance and Perception of customers, mean of both importance and performance were compared.

3.9. Scope for the Study:

1. The geographical scope of the study has been restricted to Assam only.
2. All banks operating in Assam have been considered in the study. Banks not operating in Assam have not been considered.
3. All sections of population have bank accounts have been considered for the study. As the study involves finding out satisfaction level of customers, people not having bank account have not been considered.

3.10. Limitation of the Study:

1. One of the major limitations of the study was to gather information from the bankers. The bankers were not willing to spare time for collecting information from them.
2. During sample selection process, only two cooperative banks have been selected. So, information related to cooperative banks may not be representative for all cooperative banks.
3. Certain attributes that have been used as variables for finding out satisfaction level of customers may not be valid for cooperative banks. Examples of such attributes are credit card facility, phone banking, online banking etc.