CHAPTER 3

Research Methodology
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3.1 Introduction

To fulfill the objectives of the study, a well-thought research methodology has been carried out throughout the study. The current performance of the sales tax department is evaluated through various secondary information as provided by the Office of the Commissioner of Taxes, Assam. The nation-wide scenario regarding the introduction of value-added tax has been studied thoroughly. Data regarding stakeholders' perception have been collected through a State-wide survey. It has been tried to identify the loopholes in the present system of sales tax administration, the requirements of changeover to the VAT regime and the need and aspirations of the stakeholders to the system. Considering all the factors, it has been tried to develop policies for the effective administration of sales taxation in the State of Assam. The whole research plan has been depicted in the following chart:

![Diagram](image)

Study of the present development of sales tax administration in the national level

Examine the present status of sales tax administration in Assam

Identify strength and weakness of the present system in the State

Explore the aspirations and needs of the stakeholders to the system

Develop policy for augmenting sales tax revenue of the State
3.2 **Collection of Information**

The success of a study depends on the quality and relevance of the data. As part of collecting required and adequate amount of data from appropriate sources, it was planned to collect primary as well as secondary data to meet the research requirements.

3.2.1 **Secondary Data**

The basic objective of the study has been to suggest ways for augmenting revenue from sales taxation by giving least possible pains to the taxpayers. In this effort, the study needed various information relating to the past performance of the sales taxation system in the State. The study tried to examine the following factors:

i) the present state of economy of the State

ii) the structure and administration practised in the State as regards sales taxation

iii) the pattern of growth of revenue from sales taxation in Assam

iv) the performance of the sales tax department as regards collection of arrears, settlement of pending assessments etc.

v) the development in the field of sales taxation in the national as well as international arena.

The data relevant to the above aspects were collected from number of sources such as past studies, published papers, articles, tax administration reports, various tax Acts etc. Many offices and institutions were visited, as mentioned below:
3.2.2 Primary Data

As part of data collection, primary data have also been collected from different sources. Observation and case study methods were used. Survey technique has been used by designing questionnaire as per the objectives of the study.

Primary data were collected from a group of stakeholders comprising of dealers, administrators, experts and consumers. Primary data were collected mainly through questionnaires but observation method was also followed to obtain various first-hand information relevant for the study.

3.2.2.1 Stakeholders Defined

In this regard, the stakeholders are classified under four categories viz. Dealers, administrators, experts and consumers. Dealer, in the context of sales taxation, means any person who deals in taxable merchandise. Dealers are of two type viz. registered dealers and unregistered dealers. Dealers play the main role in the process of collection of sales tax. Sales tax is an indirect tax. The State Government imposes sales tax on various commodities. The dealers collect the tax from their customers and deposit it to the Government exchequer. In this way, they perform the function of an agent of the Government so far as collection of sales tax is concerned.
Administrators are the functionaries of the sales tax department. They are the functionaries through whom the sales tax statute is administered. They are the main pillars as far as the execution of the Act is concerned. The administrators for this study include officers in the rank of Inspector of Taxes and above. Five categories of administrators viz. Joint Commissioner of Taxes, Deputy Commissioner of Taxes, Senior Superintendent of Taxes, Superintendent of Taxes and Inspector of Taxes, have been considered in the study.

Experts are those persons who have wide knowledge and expertise in sales tax matters of the State. This category includes sales tax consultants, retired sales tax officials, office bearers of the Chambers of Commerce and the like. This category also includes some dealers who have in-depth knowledge in the subject.

The fourth category is the consumers. This segment represents public in general who purchases any product for their use. These are the persons who ultimately bear the burden of sales tax imposed by the State Government.

3.2.3 The Questionnaire

Various factors described in § 3.3 were tried to be measured through a questionnaire using various scales. Utmost care was taken to ensure that the variables be measured with least possible error and that they are valid for using the appropriate analytical tools. The principles regarding questionnaire preparation were followed thoroughly and precautions were taken so that occurrences of non-sampling errors were negligible. Most of the questions were close ended so that they do not pose any difficulty to the participant in responding and that the analysis could be done in a pre-determined way.
A unique method was adopted for selection of questions for the questionnaire. A Delphi-like study was conducted where some open-ended broad questions were sent to 30 eminent experts in the field of sales taxation. Their diverse responses were narrowed down in three consecutive iterative rounds. On the basis of the findings of the above study, the detailed questionnaire for the general respondents was prepared. Hence, the questionnaire could incorporate all the necessary elements that were required for the study.

A pilot survey was conducted with the proposed questionnaire in May 2000 on 35 respondents and necessary modifications in the content of questions, wordings, and sequence were made.

The questionnaire consisted of 28 questions for dealers and administrators, 37 questions for experts, and 10 questions for consumers. The questionnaire was started with an introductory note stating the reasons as to why the study was necessary. Respondents' full participation was sought. The first question of all categories was put as a warm-up question and thus it was a simple and preliminary one. Subsequent questions gradually tried to invite the respondents deeper into the study zone. Questions using the interval scale (a 10 point rating) were used to determine the reason for poor sales tax collection, problems in compliance and administration of sales tax statutes and ways of evasion of sales tax in the State. A 3-point scale was used to determine the various ways for simplification of sales tax system in Assam. In other questions, nominal and interval scales were used. The dealer-respondents were asked to give a profile of themselves with regard to their nature of business, range of annual turnover, experience. Administrator-respondents were asked to provide information on their designation, service carrier, and job satisfaction level. Expert-respondents were requested to provide information on their profession, tenure of relationship with the sales tax system. Consumer-respondents' profile was also recorded as to their education, monthly income
and their profession. The idea behind inclusion of many identification data was to find out any relationship that might exist among the respondent’s peer and variables under study.

The distribution of questions on the basis of measurement scale used is shown in Figure 3.1. Sample questionnaires are presented in appendix.

Data collected were validated with due caution. Only those responses that were clearly given were taken into consideration. A number of responses were to be rejected as because of lack of clarity. A database comprising responses from all 1220 questionnaires was created for relevant analysis.

3.3 Survey of Stakeholders’ Perception

A survey was conducted between July 2000 and June 2001 among dealers, administrators, experts and consumers to study the variables that had direct bearing with the study objectives. The prime objectives of the survey were to find out the factors that lead to non-compliance of tax statutes resulting in evasion of taxes. The survey also tried to find out the problems and difficulties faced by the stakeholders in compliance and administration of the
tax laws. It was tried to explore the consumers’ attitude towards payments of sales tax. The factors to be evaluated in order to achieve the above objectives are mentioned below:

1. Shortcomings in the present Sales Tax Law of the State.
2. Reason for poor collection of sales tax in Assam
3. Awareness about the Value-Added Tax (VAT) system
4. Problems faced by the dealers in the compliance of sales tax law of the State.
5. Problems faced by administrators in the administration of sales tax of the State.
6. Ways of Evasion of sales tax in Assam as perceived by dealers, administrators and experts.
7. Widening the sales tax net by bringing more dealers under registration.
8. Scope for enhancing sales tax revenue.
9. Views of stakeholders regarding simplification of sales tax structure in Assam.

Fig 3.2 shows the composition of stakeholders in the sample that was surveyed for exploring the factors mentioned above. The percentage of consumers is not included in the diagram as the consumers’ survey has been completely different from that of the other three segments. The figure shows that majority of the respondents belong to dealer category followed by administrators and then experts. It is for the reason that dealers play the main role in the process of generation of sales taxation and the administrators are there to follow up the dealers. As the dealers are the main source of collection of sales taxation in the State, hence main emphasis has been placed on dealers while determining the sample composition.
The quality of the findings of a sample study depends, to a large extent, on the composition of sample. The survey for the study has been carried out in four independent ways. The study population, sample size, element vary from one to another. The following is the brief description of the surveys being carried out on the four stakeholder groups.

**Survey I: Survey on Dealers:**

⇒ **Sampling Plan**

The study population is defined as follows:

**Element:** Persons who deal in taxable merchandise in the State of Assam. This includes persons who have registered themselves with the sales tax authorities as sellers as well as persons who deal in taxable merchandise but have not been registered.

**Sampling Units:** Individual shops and establishments.

**Extent:** Whole of Assam. It covered various districts of the State. The places were selected on the basis of the tax collection targets as fixed by the Commissioner of Taxes, Assam.

**Time** From July 2000 to June 2001.
Sampling Frame

Sampling Frame is not available though the population is finite. The population consists of well-defined registered dealers. There were 28990 registered dealers in the State of Assam during 1997-98. The turnover-wise dealer population is depicted in Table 3.1

Table 3.1
Gross Turnover-wise Number of Registered Dealers during 1997-98

<table>
<thead>
<tr>
<th>Turnover Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>below Rs. 1 lakh</td>
<td>10489</td>
</tr>
<tr>
<td>Above Rs. 1 lakh up to Rs. 3 lakh</td>
<td>7674</td>
</tr>
<tr>
<td>Above Rs. 3 Lakh up to Rs. 5 lakh</td>
<td>4201</td>
</tr>
<tr>
<td>Above Rs. 5 lakh up to Rs. 10 Lakh</td>
<td>3003</td>
</tr>
<tr>
<td>Above Rs. 10 lakh</td>
<td>3623</td>
</tr>
<tr>
<td>Total</td>
<td>28990</td>
</tr>
</tbody>
</table>

Source: Commissioner of Taxes, Assam

Sample Size and Sampling Procedure

A sample size of 430 had been selected among the study population of dealers. Figure 3.3 portrays the composition of dealers in the sample as per their annual turnover. It is noticed that the sample is almost equally divided among various groups in the mid and high annual turnover category. Though more than 30% of the population consists of dealer in the small turnover group even in the selection of sample size more emphasis is being given on mid and high turnover group because of their more interaction with the sales taxation system in comparison to the small turnover group.
Fig 3.3 Composition of Sample in Dealer-Respondents according to Turnover

Fig 3.4 shows the composition of dealer-respondents in relation to their registration with the tax authorities. It is seen from the figure that most of the respondents in the dealer category are registered. It may be because the registered dealers are more approachable than unregistered dealers. A very few unregistered dealers could be surveyed during the study.

Fig 3.4 Dealer-Respondents Profile according to Registration with Tax Dept.
Survey II: Survey on Administrators:

⇒ Sampling Plan

The study population is defined as follows:

Element: Persons who are engaged in administering the sales tax statutes in the State of Assam. This segment includes persons who are the authorized employees of the sales tax department in charge of the execution of various responsibilities relating to sales tax administration.

Sampling Units: Individual Officers not below the rank of Inspector of Taxes.

Extent: The entire State of Assam. It covered various districts of the State. The places were selected on the basis of the tax collection targets as fixed by the Commissioner of Taxes, Assam. Due weightage is being given to the places where concentration of collection of tax is substantial. Guwahati, the State capital, is given main emphasis as 40 percent of the total respondents belong to this place. This is because almost 45 percent of the total tax collection of the State come from this place.

Time: From July 2000 to June 2001

⇒ Sampling Frame

The sampling frame is not defined. But the population consists of well-defined administrators as maintained by the Office of the Commissioner of Taxes. There were altogether 376 administrators up to the rank of Inspector of Taxes in the State of Assam during 1997-98. Table 3.2 enumerates the number of administrators in the State of Assam who are responsible for the administration of sales taxes.
Table 3.2
Sanctioned Strength of Officers as on 31-3-98

<table>
<thead>
<tr>
<th>Officer Position</th>
<th>Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commissioner of Taxes (CT)</td>
<td>1</td>
</tr>
<tr>
<td>Additional Commissioner of Taxes (ACT)</td>
<td>2</td>
</tr>
<tr>
<td>Joint Commissioner of Taxes (JCT)</td>
<td>5</td>
</tr>
<tr>
<td>Deputy Commissioner of Taxes (DCT)</td>
<td>14</td>
</tr>
<tr>
<td>Senior Superintendent of Taxes (SST)</td>
<td>15</td>
</tr>
<tr>
<td>Finance and Accounts Officers (FAO)</td>
<td>1</td>
</tr>
<tr>
<td>Superintendent of Taxes (ST)</td>
<td>131</td>
</tr>
<tr>
<td>Inspector of Taxes (IT)</td>
<td>207</td>
</tr>
<tr>
<td>Total (except Grade III and IV Staff)</td>
<td>376</td>
</tr>
</tbody>
</table>

Sample Size and Sampling Procedure

It is always desirable to have a large sample size to have the least possible sampling error. Hence, a substantial number has been selected to form the sample of this category of respondent. A total number of 126 administrators were selected from all over the State. Convenience sampling technique has been applied for selection of sampling units. Due emphasis has been given on various parameters while selecting the respondents for the survey. The parameters have been place, designation, experience etc.

Fig 3.5 represents composition of sample of administrator-respondents on the basis of their designation. The figure shows that majority of the respondents are Superintendent of Taxes (ST). It has become very much necessary to have their views as because both SSTs and STs are the officers mainly entrusted with the job of assessment of taxes. Next prominence has been given to the Inspector of Taxes (IT) because they are the officers at the grass-root level to deal with the tax collection and to check tax evasion. Both STs and ITs have maximum contact with the dealers and other parties in comparison to other officers in the rank and, therefore, their comments about the tax system are taken to be of great importance.
Fig 3.5 Administrator-Respondents Profile by Designation

Fig 3.6 shows the composition of administrator-respondents on the basis of authority of assessment of sales tax. Assessment of sales tax is the prime authority by which an officer exercises his power for determination of the amount of tax payable by any dealer. The figure clearly shows that a very high percentage of the respondents belong to the category of having the authority for assessment of sales taxation. The officers having the authority can perceive the strength and weaknesses of the present sales tax system more strikingly than others.

Fig 3.6 Administrator-Respondents Profile by Authority

The views of administrators may depend on their service career. Fig 3.7 portrays the composition of sample of administrators on the basis of their service career. It is seen that more than half of the administrator-respondents comprise of young administrators having a service career of less than 10 years.
Fig 3.7 Composition of Sample of Administrator-Respondents by Service Experience

Survey III: Survey on Experts:

⇒ Sampling Plan

The study population is defined as follows:

**Element**: Persons who are actively involved in various fields as regards the sales tax statutes in the State of Assam. This includes persons who are performing the functions of a consultant in sales tax matters to the dealers. This category also includes persons who were tax administrators but now retired after serving in the sales tax department at different capacities. There are also some dealers who have wide knowledge and experience over sales tax matters in the State. They are also treated as experts for the survey. Expert category also includes academicians and researchers who are engaged in the field of sales taxation in the State.

**Sampling Units**: Individuals
Extent: The entire State of Assam. It covered every corner of the State. The places were selected on the basis of the location of the respondents. As Guwahati is the nerve centre of business in the State, hence most of the persons in the expert category are located in this place. Naturally, more weightage is being given to the places where concentration of such respondents is substantial.

Time: From July 2000 to June 2001

⇒ Sampling Frame

The sampling frame is not defined. Hence, it was not possible to draw out any frame for the population.

⇒ Sample Size and Sampling Procedure

As the sampling frame was not defined, it was difficult to come to any decision regarding the optimum sample size for this category of respondents. Convenience sampling technique has been applied and a sample size of 64 respondents was taken from the entire State. While selecting the respondents due care has been taken to see that they are selected in a manner to cover the various parts of the State, represent various professions as well as a mixture of senior and young persons.

Fig 3.8 represents the profile of expert-respondents on the basis of their profession. It can be noticed from the figure that most of the respondents in this category are tax consultants. They are the persons who know the various intricacies as well as pros and cons of the present sales taxation system in the State. The next substantial group have been retired tax officials who have wide experience in sales tax matters because of their long standing service career. Academicians, researchers in sales taxation are few in the category as there are dearth of such persons in the State.
The comments and suggestions provided by the expert-respondents depend to a great extent on their experience of handling the sales tax system. Utmost care has been taken to have a mix of experienced and young persons in this category. Fig 3.9 is a representation of the composition of expert respondents' sample by experience.
Basis of Selection of Sample of Respondents

The above categories of respondents were carefully selected from various places of the State. But selection of number of respondents from each place had been a tough job. The dealers were selected on the basis of their place of business. Number of dealers as well as administrators selected in a particular place had a direct relevance to the proportion of total sales tax earning of the State. Thus, more respondents were taken from those places where collections of sales tax were more. Table 3.3 shows the justification for selection of respondents representing various places in the State of Assam.

Table 3.3

Distribution of Sampling Units

<table>
<thead>
<tr>
<th>Name of District</th>
<th>Collection (Rs. In lakhs)</th>
<th>%</th>
<th>No. of respondents</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tinsukia</td>
<td>9877.65</td>
<td>11.30</td>
<td>60</td>
<td>9.67</td>
</tr>
<tr>
<td>Dibrugarh</td>
<td>11092.42</td>
<td>12.69</td>
<td>105</td>
<td>16.94</td>
</tr>
<tr>
<td>Sivasagar</td>
<td>5259.99</td>
<td>6.02</td>
<td>13</td>
<td>2.10</td>
</tr>
<tr>
<td>Jorhat</td>
<td>1836.63</td>
<td>2.10</td>
<td>44</td>
<td>7.10</td>
</tr>
<tr>
<td>Golaghat</td>
<td>972.20</td>
<td>1.11</td>
<td>7</td>
<td>1.12</td>
</tr>
<tr>
<td>Nagaon</td>
<td>1132.35</td>
<td>1.30</td>
<td>32</td>
<td>5.16</td>
</tr>
<tr>
<td>Morigaon</td>
<td>899.67</td>
<td>1.03</td>
<td>1</td>
<td>0.16</td>
</tr>
<tr>
<td>Karbi Anglong</td>
<td>465.5</td>
<td>0.53</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>North Cacher</td>
<td>277.37</td>
<td>0.32</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cacher</td>
<td>1312.71</td>
<td>1.50</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hailakandi</td>
<td>571.32</td>
<td>0.65</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Karimganj</td>
<td>503.20</td>
<td>0.58</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Dhemaji</td>
<td>142.89</td>
<td>0.16</td>
<td>3</td>
<td>0.48</td>
</tr>
<tr>
<td>North Lakhimpur</td>
<td>395.06</td>
<td>0.45</td>
<td>32</td>
<td>5.17</td>
</tr>
<tr>
<td>Sonitpur</td>
<td>2120.19</td>
<td>2.43</td>
<td>61</td>
<td>9.83</td>
</tr>
<tr>
<td>Darrang</td>
<td>694.02</td>
<td>0.80</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Kamrup</td>
<td>42735.09</td>
<td>48.91</td>
<td>249</td>
<td>40.16</td>
</tr>
<tr>
<td>Nalbari</td>
<td>403.32</td>
<td>0.46</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Barpeta</td>
<td>577.84</td>
<td>0.66</td>
<td>12</td>
<td>1.94</td>
</tr>
<tr>
<td>Bongaigaon</td>
<td>4604.83</td>
<td>5.27</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Goalpara</td>
<td>306.44</td>
<td>0.35</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Kokrajhar</td>
<td>300.42</td>
<td>0.34</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Dhubri</td>
<td>904.31</td>
<td>1.04</td>
<td>1</td>
<td>0.16</td>
</tr>
<tr>
<td>Total</td>
<td>87385.42</td>
<td>100.00</td>
<td>620</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Figures of Collection of Sales Tax, Commissioner of Taxes, Assam
It is clear from Table 3.3 that almost half of the total sales tax collection of the State comes from Kamrup District of Assam. Guwahati, the State capital, is also the headquarter of the district. On this basis, 40 percent of the respondents were selected from that district. In selecting other places due weightage was given on the respective collection figures of sales taxes in that place.

**Survey IV: Survey on Consumers**

The fourth segment happened to be the consumers where the size of the population was very large and a sampling frame could not be defined Classical statistical method of sample size determination using the precision level and level of confidence could not be employed. Altogether responses of 600 consumers from different places of the State were considered for the Study.

Consumers are the persons who ultimately bear the burden of sales taxation. Dealers pay the taxes at first instance to the authorities, but they shift the burden of sales taxes as soon as the commodities are sold to consumers. Quantum of collection of sales tax, to a large extent, depends on the attitude of consumers regarding payment of sales tax. A major way of evasion of sales tax in the State has been non-recording of sales. If consumers were aware of their rights and duties, and they insisted on vouchers against every purchase, the evasion of sales tax could be checked to a great extent.

The consumers are also given due importance for the collection of various information. To have first-hand knowledge about the attitude and perceptions of the consumers towards sales tax, a Statewide survey has been carried out to explore the following aspects:
1. Awareness of consumers to the present state of economy of the State
2. Awareness about importance and payment of sales tax
3. Habit of asking for authentic vouchers against each purchase
4. Honesty for payment of sales tax
5. Views regarding payment of sales tax
6. To know the effects of various factors like income, education, profession on the habit of payment of sales tax.

⇒ Sampling Plan

The study population is defined as follows:

Element: Persons who make purchases of taxable commodity in the State of Assam. This includes any individual irrespective of any profession, educational qualification, income etc.

Sampling Units: Individuals

Extent: The entire State of Assam. It covered various districts of the State. The places were selected on the basis of the collection of sales taxation. Naturally, more weightage is being given to the places where collection of sales taxes have been substantial.


⇒ Sampling Frame

The sampling frame is not defined. Hence, it was not possible to draw out any frame for the population.
Sample Size and Sampling Procedure

As the sampling frame was not defined, it was difficult to come to any decision regarding the optimum sample size for this category of respondents. Convenience sampling technique has been applied and a sample size of 600 respondents was taken from the entire State. While selecting the respondents due care has been exercised to see that they are selected to cover the various parts of the State, represent various types of individuals including housewives, students and the like.

Fig 3.10 describes the consumer-respondents profile according to their educational qualification. More than half of the respondents are graduate while the balance is equally represented by undergraduate and postgraduates. The educational level has a direct bearing on the attitude of consumers. Another factor that may affect the attitude of consumers in the payment of sales may be their income level.
Fig 3.11 shows the composition of sample of consumer-respondents on the basis of their monthly income. It can be noticed from the figure that half the sample comprise of respondents having mediocre income in the range of Rs. 5,000 – Rs. 10,000 per month.

The attitude and perception of the consumers may also depend on the profession they carry out. Fig 3.12 is a representation of the composition of sample of consumer respondents on the basis of their profession. In selecting the sample, emphasis has been given more on the service holders to know their perception about the sales tax matters. Businesspersons and professionals come next. The other category, being the least, includes housewives, students etc. who also play a substantial role in making purchases of commodities from the dealers.

3.4 Statistical Tools Used

The data have been processed by using the software SPSS version 8.0 as well as Sigmastat. The software has been used widely in analyzing the data to arrive at the conclusion. Various techniques like chi-square test, z test have been used. As the data have been of a very complex nature, categorical analysis was necessary. In arriving at important conclusions, emphasis had been given on two-way ANOVA technique.
3.5 Conclusion

Both primary and secondary data were collected from all over the State of Assam with a view to analyzing the existing taxation system in the State. While the secondary data were collected regarding growth pattern of tax revenue, performance of the tax department, pros and cons of the present tax statute etc., the primary data are related to views and perceptions of the stakeholders involved in the sales taxation system. The stakeholders include dealers of various commodities, tax administrators of various levels, experts of various backgrounds, and consumers in general. The questionnaire method was followed to collect the primary data from all categories of respondents. Though it is possible to apply a wide range of statistical tools to analyze the data, keeping in view the objectives of the study, a few statistical tools have been applied in this study. The collected data have been processed through SPSS software to have a segmental analysis of the respondents. The statistical tools viz. Chi-square test, ANOVA, regression analysis are applied in the processing of secondary and primary data which are presented in the subsequent chapters.