CHAPTER III

METHODOLOGY

This chapter describes the problem chosen for study, its objectives and the selection of sample, description of the instruments used and the statistical techniques adopted to establish the reliability and validity of the tools and to analyze the results obtained in this study.

This study is a descriptive research using the nomothetic approach. The main aim is an attempt to establish broad generalization and “universal laws” that apply to a wide population of consumers. As a consequence, this research considers the study of behavioural characteristics of complainers with the purpose of determining the average or typical Indian Consumers responses to dissatisfaction with the service provider.

Multidimensional Attribute Analysis:

Attempts have been made to study the consumer Complaint behavior at three levels. First major type: - personality, buying lifestyles measures; namely Appendix I and II, Cognitive : - preference by implication choice namely Appendix III; Affective: - the reaction of consumers to dissatisfaction namely, Appendix IV and V.

The Criterion Variable is Complaint Behaviour.

Consumer complaint behavior is a function of personality and buyer characteristics.

Consumer Complaint Behaviour is a function of predictor variables like age, income, occupation, gender, years of experience, geographical location, marital status and size of family.
Objectives of the Study

1. To study the differences in the personality of complainers and non-complainers
2. To relate buying behaviour of the consumer to their type of complaint behaviour.
3. To find out the relationship between age, occupation and gender, income, size of family, years of experience, educational qualification, geographical location and marital status of complainers and non-complainers.
4. To observe the different methods of complaints preferred by complainers and non-complainers.
5. To examine the frequency of complaints among complainers.
6. To bring out the tendency of consumers to complain.
7. To differentiate the differences in the three levels of complaint behavior namely mild, moderate and severe complainers.
8. To observe the differences in complaint behavior across three service areas, namely Medical, Banking and Insurance.

The literature on consumer satisfaction/dissatisfaction and complaint behavior has primarily evolved after 1970. Past research (Andreasen and Best 1977) have demonstrated that consumers often perceive dissatisfaction with their purchases in one out of five purchases. Bearden and Teel (1983) have demonstrated that dissatisfaction is a necessary condition for overt complaints.

Hypotheses

1. There will be a significant difference in the personality patterns of complainers and non-complainers.
2. There will be a significant difference in the methods of complaining among the complainers.

3. There will be a significant difference in the frequency of complaints among complainers.

4. There will be a significant difference in the propensity to complain among consumers.

5. There will be a significant difference in the buying behaviour of complainers and non-complainers.

6. There will be a significant difference between the mild, moderate and severe groups of complainers.

7. There will be a significant difference in the gender of complainers and non-complainers.

8. There will be a significant difference in the income of complainers and non-complainers.

9. There will be a significant difference in the occupations of complainers and non-complainers.

10. There will be significant difference in the age of the complainers and non-complainers.

11. There will be a significant difference between educational qualification of complainers and non-complainers.

12. There will be a significant difference between the rural and urban complainers and non-complainers.

13. There will be a significant difference between the professionals and non-professionals on complaint behaviour.
14. There will be a significant difference between the size of family of complainers and non-complainers.

15. There will be a significant difference between the personality of mild, moderate and severe complainers.

16. There will be a significant difference in the marital status of complainers and non-complainers.

17. There will be significant differences in the complaint behaviour of consumers across services, namely Banking, Insurance and Medical.

The hypotheses formulated for the present study were based on the past research literature. Review of literature has shown that dissatisfaction and overt complaints are found to vary across products and services (Andreasen and Best, 1977. Technical Assistance Research Programme, 1979, 1986). Gronhau get and Zaltman (1981) on examining a variety of factors related to resources, learning and personality found marketplace activities to be most powerful criteria in discriminating between dissatisfied complainers and non-complainers respectively. Most research on complaint behavior has focused primarily on various aspects of the complainers, such as their strategies, characteristics and satisfaction with complaint outcome. (Gilly, 1987, Robinson, 1978; Singh 1988)

Consumers are assumed to exhibit purposeful behavior and may react in various ways when perceiving dissatisfaction, such as complaining to seller, contact consumer agency, seek advice from friends or do nothing. (Day and Landon, 1977; Singh, 1988). The intensity and contents of complaints raise sensitive problems. While a substantial volume of complaints normally would suggest deficiencies in the
market system (Andreasen, 1977), the opposite need not be true (Gronhaug and Kritastein, 1991).

In the present study:-

1. An individual consumer is the basic unit of analysis
2. The analysis is cross-sectional
3. The purpose is to predict complaint behaviour and to evaluate the importance of one or more independent variables as determinants (Causes) of variation in a given dependent variable.

Segmentation Studies: (Frank, Massy and Wind 1972)

I. Dependent Variables
   (a) Accuracy – Mild, Moderate and Severe
   (b) Aggregation – Consumer Complaint Intentions, complaint Activity, Tendency to complaint
   (c) Specification – Complainer, Non complainer

   (Morganosky and Buckley, 1986)

II. Independent Variables
   (a) Personality Characteristics
   (b) Demographic characteristics: age, income, years of experience, gender, educational qualification, occupation, professional and non-professional, marital status, and nuclear/extended families.

III Customer Characteristics:- Buyer Characteristics, namely Thrifty, Risk-taker, Impulsive, Optimist, and Conservative.

Analysis of Personality of consumers

Several consumer researchers conceive consumer complaint as a confrontative copying style attached to an individual. Efforts have been made to ascertain who will
complain and who would not complain. Studies of personality characteristics including dogmatism, locus of control and self confidence have been linked with complaint behavior (Settle and Golden, 1974, Zaichkowski and Liefeld, 1977).

A growing body of research has been directed towards psychological profiles of consumers in order to predict or understand consumer’s responses to their experiences in the market place. Several researchers have correlated measures of assertiveness and aggression with individual differences in the way in which consumers interact in dyadic exchanges in the market place (Swanson and McIntyre, 1998).

There are many studies relating personality of consumers who complain to the variables of Consumer Complaint Behavior. The consumer complaint behavior could be considered a function of personality as well as reflection of the quality of services in the market place and perceptions of the actions taken to redress problems.

The internal -external control dimension is derived from the social learning theory of Rotter (1954). Based on past experiences, some individuals acquire the view that locus of causality for personality relevant events or reinforcements is external. Others view events as product of their own actions. Thus the internal -external construct is a stable uni-dimensional personality variable.

Extending these studies, it was hypothesized that consumer complaint behavior would be a function of personality and the variables of complaint behavior namely frequency of complaint, method of complaints and tendency to complain.

Instruments used in the study:

Rotter’s Locus of control

Locus of Control refers to the extent to which one believes either that reinforcement occurs primarily as a function of ones own behavior (internal control)
or due to external forces such as luck, chance, powerful others (external control) (Rotter, 1966).

Rotter's Internal – External scale was used to measure external and internal locus of control orientation of the consumers. This scale comprises of 29 items including 6 filler items, each of which, requires the consumers to choose one of the two statements with which he agrees more. These statements make reference to matters of social and political as well as personal relevance.

**Internals:**

According to Rotter (1966), internals are those who believe that their rewards and punishments are controlled by what they do.

**Externals**

Externals are people who believe that forces outside themselves are responsible for their rewards and punishments. Factors such as luck, chance and powerful people control their consequences, sometimes the outcomes are appropriate and the externals feel that they are not related to what he does.

To test hypothesis I, Rotter's Locus of Control test was used. Consumers were classified into externals and internals based on their scores on the E-I scale. The consumer's whose scores were 0-11 were classified as internals and those scoring 12 and above were grouped as externals. Analysis indicated that there were 81 externals and 219 internals in the sample of 300. They have been further grouped on the basis of their complaints in the three service areas, namely Banking, Insurance and Medical.

**Reliability**

Reliability coefficient was calculated using the test – retest method on 50 consumers after an interval of one month and it was found to be 0.89.
Instruments to measure Complaint Behavior

Consumer complaints are now considered indispensable as indicators of unsatisfactory performance of the economic system (Fornell and Didow, 1980). They provide a feedback to business and play a major role in assisting the planning of major consumer programs and activities (Best and Andreasen, 1977; Day, 1977; Hunt, 1977).

Potential responses include (a) switching brands or refusing to re-patronize the offending store (b) making a complaint to the seller or to a third party, and (c) telling others about the unsatisfactory product or service or retailer. While estimates of the incidence of complaints in response to dissatisfaction vary, it is accepted that the incidence is lower than the incidence of other responses, namely the repeat purchase behavior and word-of-mouth behavior.

Consumers discontent, which manifests itself with consumerism and other forms of consumer resistance may grow out of concern, both with particular business practices and with the broader societal impact of business behavior (Herman, 1992). A variety of responses are available to consumers concerned about lapses in business, for example, boycott and creation of alternative providers of goods and services. Evaluation of services before, during and after the purchase along with evaluations of quality and satisfaction is absolutely imperative. (Pratibha, 1995).

Cognitive Measures:

Can satisfaction be subdivided into several cognitive components? Fitting in with trends, sense of accomplishment in solving a complex task. length of usefulness of chosen alternative, given uncertainty ,(Srinivasan 1995 ). Classification of consumer buyer characteristics occupies a central role in the systematic understanding and prediction of complaint behavior. The consumer complaint behavior literature lacks a
logically developed scheme for the classification of dissatisfied consumer's buyers styles. Hence identifying consumer groups with unique buyer styles was felt.

b. Instruments to measure Buying Behavior

This instrument was constructed on the basis of the economic classification of man. In the construction of this instrument, ten statements each about five consumer buyer life styles were selected. A pretest with a convenience sample of college staff and faculty indicated that some of the items are repetitions and appeared to reduce the consumer's interest. On the basis of pretest result, a revised scale of 20 items was developed for the five buying patterns. A subsequent pretest with the revised scale appeared to provide adequate face validity.

The instrument identifies and classifies five buying behavior categories of consumers. The buyer life styles given by Sunil Mehrotra and Well's (1977) has also influenced the classification of buyers. This instrument, comprised of 4 statements relating to five buying behavior patterns. Adhering to this analysis, the psychographic categories taken up for this study are Thrifty, Risk taker, Impulsive Buyer, Optimist, and Conservative.

The statements thus selected were given to a panel of 10 judges, who were asked to classify the buying behavior. The categories that emerged were Thrifty, Risk Taker, Impulsive Buyer, Optimist and Conservative. These statements were given to a group of 20 consumers and the reliability of the instrument was calculated using test – retest method. The reliability coefficient is 0.91

Lifestyles is a widely used and very familiar construct to market researchers. A lifestyles marketing perspective predicts that people sort themselves into groups on the basis of the things they like to do, how they spend their leisure time and how they
choose their disposable incomes. The identification and targeting of these categories has become the imperative for many practitioners.

Operational definitions of the psychographic buyer lifestyles used in this study


2. Risk Taker is one who is aware of the consequences or dangers associated with some future happening that may occur and is prepared to take the risk.

3. Impulse Purchasing is unplanned purchasing, a type of consumer buying pattern. Most of the buying decisions in supermarkets are unplanned. Acting on impulse rather than thought. The buying of items and merchandise on an impulse.

4. Optimist: - the belief that good will win over evil, that things will end well. A doctrine, which emphasizes that everything is for the best. The condition producing the most favourable result.

5. Conservative: - Favouring the established order of Society. They believe that this order of society should be kept, as it is, for as long as possible and then changed only slowly.

Scoring

This instrument was given to consumers with the instruction to read the statements and to respond by marking “Yes” or “No” to each of the statements. Thus a total score was obtained on a dichotomous (Yes/ No) scale of 20 items. Responses marked “Yes” were scored as 1 and responses marked as “No” scored as 0. The final classification was made on the basis of the consumer getting a maximum score of 4 on any one of the five buying behavior patterns.
This questionnaire is also based on the instrument used by Chattopadhyya and Alba (1988). Studies have indicated that consumers are flexible processors, who adapt their decision making to different situations (Mattila, 1998).

The questionnaire error, as indicated in the effect of evoked set is controlled because the set of alternatives is fairly small (Farley and Howard, 1975).

Validity of the instrument

Face Validity

Face validity was established by using 10 experts, 5 academic and 5 non-academics. Eight experts identified the five groups of buying characteristics. Sometimes the validity of the measuring instrument is self-evident. It can happen when the investigator bases the measuring instrument directly on the behavior of the respondent. A variety of information such as how they buy, when they choose a service provider has been drawn from the consumers during the data collection to show that the scores on these related scales are reasonable and are related to the respondents behavior.

The phi coefficients (Aggarwal, 1988) for the 20 items of Appendix II was calculated. They ranged from 0.45 to 0.63.

Construct Validity

The emphasis is constructing these scales was to put together related behavior items, such that each scale is focused on content area, and the items reflect this focus. For example, item 1 goes as follows:

"I usually look for the lowest possible price when I shop" – belongs to thrifty set of buying behavior.

Affective measures of complaint behavior

Recently satisfaction researchers have been broadening the scope of post consumption processes to include affective responses to complaints (Srinivasan 1995; Spring 1995).
Post purchase evaluations are made naturally, based on the retrieval of relevant constructs from memory. Prior satisfaction judgements are easily retrievable because they initially require both direct experience and systematic integration of information (Mattila, 1998). The post consumption satisfaction evaluation of consumers may be heavily biased by that of prior judgement stored in memory.

In consumer research, ranking are often used to determine preference especially when de-compositional models of preference are employed (Schibrowsky and Peltier, 1995). This instrument measures the preference data of consumer complaint methods. Preference implies that stimuli be judged in terms of dominance relationships, that is the stimuli are ordered in terms of preference for some property. namely methods of complaining.

c. Instrument to measure methods of complaining or Dissatisfaction Outcomes

Ranking – Discrete Dimensional Structure:

Rank order makes discrimination among alternative options. Rank order scaling is more sensitive in measuring differences that consumers can detect. In general rank order is preferred because it gives the relative preference of options or alternatives (Shaughnessy and Zechmeister, 1997). Direct ranking is used where each respondent ranks the object from the most preferred to the least preferred. Items to be ranked are placed in a random order to facilitate non-biased ranking by the consumer.

These approaches to obtaining preference data are typical although not exhaustive. An ordinal scale, where the consumer ranks the list of options that he would choose from, when he experiences dissatisfaction was developed. The aim of this tool was to measure the methods of complaining that the consumer prefers. This instrument is intended to explore how consumers put their thoughts into action and also indicates
the degree or the severity of action he intends to opt for. Ranking procedures are most useful for deriving importance weights for a set of attributes.

The consumers were asked to give their preferences for the complaint methods listed in the questionnaire. A multidimensional ranking procedure was followed for each of the discrete ranking characters. Rank 1 for the most preferred one, Rank 2 for the next preferred and so on till all 10 ranks have been assigned to each method of complaint.

Based on the ranking given to each option, the consumers were classified into mild, moderate and severe complainers. The mild complainers being those who indulge in, in-direct methods of complaining. The moderate complainers are those resort who resort to more direct action. While the severe complainers are the action oriented group, who go all out to take extreme measures to punish the main cause of their dissatisfaction – be it an individual or an institution. The grouping was done on the following basis:-

(a) Consumers who preferred items 1, 3, and 8 were classified as mild complainers, indirect in their approach - indirect complainers.

(b) Consumers who opted for 4, 7, and 9 items were grouped as moderate complainers, more active in their expression of dissatisfaction – active complainers.

(c) Consumers who selected items 2, 5, 6, 10 as the “go-getters”, the ones who complain severely and go to court. These consumers could be persistent, insisting on justice and who want to accomplish what they set their mind do – persistent complainers.
Table 1 showing the distribution of complainers on the basis of degree of complaint

<table>
<thead>
<tr>
<th>Mild Complainers</th>
<th>Moderate Complainers</th>
<th>Severe Complainers</th>
</tr>
</thead>
<tbody>
<tr>
<td>122</td>
<td>81</td>
<td>34</td>
</tr>
</tbody>
</table>

This method of classifying consumer dissatisfaction outcomes is similar to Hirschman's (1970) categories of Voice, exit and retaliation. The ten characteristics or methods of complaints were selected on the basis of Maute and Forrester (1993) study of Consumer Complaint responses to dissatisfaction in the market. A group of five experts were asked to classify the ten items in Appendix III into mild, moderate and severe groups of complainers. Based on a consensus given by them, the groups of consumers were allotted and classified.

Table 2 showing the “t” values for the three groups of complainers on Appendix IV

<table>
<thead>
<tr>
<th>Mild and Moderate</th>
<th>Moderate and Severe</th>
<th>Severe and Mild</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.26</td>
<td>3.30</td>
<td>5.04</td>
</tr>
</tbody>
</table>

$t_{0.05} = 2.06$

The “t” values given above indicate that there is a significant difference between the three pairs of groups of complainers at the 0.05 level of significance. Thus indicating that the instrument did differentiate between the three groups of complainers. The initial list was developed using 15 items, which were selected from the list of methods or procedures for handling complaints given by Consumer Confrontation (1997). This was given to 10 academicians for evaluation of the inventory. From their assessment, ten methods were selected for the study.

Reliability

Reliability was established using the test retest method, where the reliability coefficient was 0.92 on a sample of 50.
### Table 2. (A)

<table>
<thead>
<tr>
<th></th>
<th>Mild</th>
<th>Moderate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.90</td>
<td>4.10</td>
</tr>
<tr>
<td>SD</td>
<td>3.00</td>
<td>2.05</td>
</tr>
<tr>
<td>t value</td>
<td>6.20</td>
<td></td>
</tr>
</tbody>
</table>

### Table 2. (B)

<table>
<thead>
<tr>
<th></th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>4.10</td>
<td>5.80</td>
</tr>
<tr>
<td>SD</td>
<td>2.05</td>
<td>3.60</td>
</tr>
<tr>
<td>t value</td>
<td>3.30</td>
<td></td>
</tr>
</tbody>
</table>

### Table 2. (C)

<table>
<thead>
<tr>
<th></th>
<th>Severe</th>
<th>Mild</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>5.80</td>
<td>0.90</td>
</tr>
<tr>
<td>SD</td>
<td>3.30</td>
<td>3.00</td>
</tr>
<tr>
<td>t value</td>
<td>5.04</td>
<td></td>
</tr>
</tbody>
</table>
Table 3 showing the Percentage of Complainers preference for the various methods of complaints:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Mild Complainer</th>
<th>Moderate Complainer</th>
<th>Severe Complainer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9.00</td>
<td>2.22</td>
<td>21.00</td>
</tr>
<tr>
<td>2</td>
<td>12.33</td>
<td>5.44</td>
<td>16.33</td>
</tr>
<tr>
<td>3</td>
<td>14.44</td>
<td>8.22</td>
<td>10.22</td>
</tr>
<tr>
<td>4</td>
<td>9.67</td>
<td>10.55</td>
<td>12.33</td>
</tr>
<tr>
<td>5</td>
<td>11.89</td>
<td>10.55</td>
<td>10.77</td>
</tr>
<tr>
<td>6</td>
<td>12.56</td>
<td>11.33</td>
<td>10.55</td>
</tr>
<tr>
<td>7</td>
<td>9.67</td>
<td>14.88</td>
<td>9.66</td>
</tr>
<tr>
<td>8</td>
<td>10.78</td>
<td>14.55</td>
<td>7.00</td>
</tr>
<tr>
<td>9</td>
<td>7.44</td>
<td>20.22</td>
<td>7.44</td>
</tr>
<tr>
<td>10</td>
<td>2.22</td>
<td>4.11</td>
<td>26.88</td>
</tr>
</tbody>
</table>

Based on the Consumers responses to Appendix III, their preferences for the various methods were obtained and percentages calculated for the three groups of mild, moderate and severe complainers. An interesting fact is that while only 2.22% of the mild complainers opted for Rank 10, 26.88% of the severe complainer group opted for Rank 10, which is taking legal action against the service provider. Similarly the severe complainer groups prefer to meet the dissatisfying situation directly by taking the retaliatory option. They prefer a face to face confrontation than the other two groups avoid.

Validity:

Concurrent validity with Maute and Forrester’s (1993) instrument was found to be 0.67. The correlation coefficient between the mild, moderate and severe complainers (Appendix III) and the frequency of complaint as measured by Appendix IV was found to be 0.68. This coefficient indicates that the classification of complainers into mild, moderate and severe is justified.
Table 4(a) showing the mean, standard deviation and standard error of the mean for the ranks preferred by complainers:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Mean</th>
<th>S.D.</th>
<th>S.E.M</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.1</td>
<td>1.96</td>
<td>0.43</td>
</tr>
<tr>
<td>2</td>
<td>2.5</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>3</td>
<td>7.6</td>
<td>2.02</td>
<td>0.49</td>
</tr>
<tr>
<td>4</td>
<td>6.7</td>
<td>1.80</td>
<td>0.40</td>
</tr>
<tr>
<td>5</td>
<td>5.0</td>
<td>2.50</td>
<td>0.55</td>
</tr>
<tr>
<td>6</td>
<td>6.3</td>
<td>3.00</td>
<td>0.67</td>
</tr>
<tr>
<td>7</td>
<td>4.8</td>
<td>2.20</td>
<td>0.49</td>
</tr>
<tr>
<td>8</td>
<td>5.1</td>
<td>2.50</td>
<td>0.55</td>
</tr>
<tr>
<td>9</td>
<td>6.5</td>
<td>2.26</td>
<td>0.50</td>
</tr>
<tr>
<td>10</td>
<td>9.8</td>
<td>0.54</td>
<td>0.12</td>
</tr>
</tbody>
</table>

The results in the above table indicate that as the number of independent observations increases, the error involved in generalizing from sample values to population values decrease and accuracy of prediction increases (Best and Kahn, 1992). Based on the mean and standard error of mean of a sample, the confidence interval, within which the "true" mean of the population would be was determined. This analysis indicated that the 95% confidence interval would be appropriate for this study.

Table 4(b) showing the Mean, standard deviation and standard error of the mean for the ranks preferred by non-complainers.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Mean</th>
<th>S.D.</th>
<th>S.E.m</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.3</td>
<td>2.16</td>
<td>0.48</td>
</tr>
<tr>
<td>2</td>
<td>2.5</td>
<td>1.94</td>
<td>0.43</td>
</tr>
<tr>
<td>3</td>
<td>6.2</td>
<td>2.13</td>
<td>0.47</td>
</tr>
<tr>
<td>4</td>
<td>4.6</td>
<td>2.74</td>
<td>0.61</td>
</tr>
<tr>
<td>5</td>
<td>4.5</td>
<td>1.98</td>
<td>0.44</td>
</tr>
<tr>
<td>6</td>
<td>3.4</td>
<td>1.89</td>
<td>0.42</td>
</tr>
<tr>
<td>7</td>
<td>5.4</td>
<td>2.20</td>
<td>0.49</td>
</tr>
<tr>
<td>8</td>
<td>5.5</td>
<td>3.10</td>
<td>0.69</td>
</tr>
<tr>
<td>9</td>
<td>8.1</td>
<td>1.96</td>
<td>0.43</td>
</tr>
<tr>
<td>10</td>
<td>8.9</td>
<td>2.00</td>
<td>0.44</td>
</tr>
</tbody>
</table>
As the sampling error in the above table is less, the error involved in generalizing from the sample value to population values decreases and accuracy of prediction increases (Best and Kahn, 1992).

**Instrument to measure the frequency of Complaints:**

A rating scale was developed to measure the time spent on the specific complaint activities of the consumer. The intention was to find out the frequency of complaints by the consumer in the last one year. Studies on consumer complaint behavior have made use of such measures. For example, Richins (1981) study, used the recollection of complaint as a measure of complaint behaviour. Consumers who had complained earlier were selected and pre-screened. Only those who had experienced a dissatisfaction within the last 12 months were selected. Based on their experiences, the initial scale was constructed. It comprised of 15 statements, which were given to 10 judges for evaluation given on the basis of the clarity and discrimination items. Out of these, 15 statements, 10 Statements were selected for the final study.

Each statement has four options in terms of the number of times the consumer has indulged in complaining. The more frequent the complaint, the more severe the action. This instrument indicates the time spent on specific complaint activity by each consumer. Similar rating scales have also been used by Singh (1990) in his study of consumer Complaint Behavior in the case of Western University, U.S.A.

**Scoring:**

The scoring weights extended from '0' for 'nil' responses to three points for "1 or more times". The higher the score, the greater the time spent on complaining, while a score of 0 would indicate a non-complainer.
Reliability

The split half reliability coefficient for the test items was found to be 0.87.

Validity

Face Validity was established using three experts who judged the questionnaire independently. Content validity was established on the basis of the ratings by experts. Inter-rater correlation was 0.69.

A sample of known complainers, numbering 10 from a consumer Activity Group in Chennai scored significantly higher than a sample of non-complainers. This established predictive validity of the instrument. The 't' values for the complainer and non complainers on Appendix IV are given in the table below:

Table 5 showing the 't' value for Complainer and non-complainer on Appendix IV

<table>
<thead>
<tr>
<th>t</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.81</td>
<td>Significant at .05</td>
</tr>
</tbody>
</table>

Thus a significant difference exists between the score of consumers on Appendix IV in terms of the complaint activity. While non-complainers have not made any overt action to reduce their dissatisfaction, complainers have chosen to act forcefully and effectively.

Fatigue error in this instrument is reduced by shortening the questionnaire to maintain the consumer's unabated interest (Halbert and Lehman, 1975). Findings also indicate that when a minor dissatisfaction is experienced, consumer's responses often are minimal. Most often consumers neither complain nor spread negative reports of the product or service involved. When dissatisfaction is serious enough, consumers tend to complain, regardless of other factors in the situation. (Richins, 1983).
Instrument to measure the Propensity to complain:

Richin’s (1983) study provided the basis for this measure. A summated rating Scale associated with Likert (1932) type model was constructed. Likert-type scale was used because they normally yield a higher reliability coefficient with fewer items (Beri 1993).

Hence its obvious selection in the present study. First a large number of statements on tendency of consumers to complain was screened and 15 Statements were selected. The statements were given to 5 experts, who evaluated the scale and deleted those statements, which were ambiguous, irrelevant or otherwise deficient. The statements thus selected by them were pooled and the final rating scale comprised of 8 statements. Care was taken to see that the statements were worded in a simple way.

After the selection of statements, the scale was given to a group of consumers, who were asked to indicate their reaction to the statements using a five point rating system; always, frequently, undecided, rarely, never. These categories were assigned values of 5, 4, 3, 2 and 1 respectively. The maximum score that was possible in this scale was 25.

This scale is also based on the study by Gronhaug and Kvitatein (1991) on the probability of making overt complaint for a dissatisfaction faced for a given product. Day and Landon (1976), termed this as a personality trait of “propensity to complain”. They observed that some consumers have a higher propensity to complain than do others, regardless or product, service or situation and that such a tendency would be function of personality.

The correlation coefficient between the personality of consumers (Appendix I) and their propensity to complain (Appendix V) was calculated.
Table 6 showing the correlation coefficient between the personality of Consumers and their propensity to complain

Table: | Behavior Character | Favourable | Neutral | Unfavourable |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Complainer</td>
<td>157 58%</td>
<td>84 31%</td>
<td>22 8%</td>
</tr>
<tr>
<td>Non Complainer</td>
<td>7 11%</td>
<td>20 32%</td>
<td>36 57%</td>
</tr>
</tbody>
</table>

Appendix V measures the course of action the consumer may take while making a decision. The decision-maker, according to the Bayes theorem, uses prior probabilities on the basis of information available of any point in time. At times, it is simple to assign probabilities in some situations. Thus the concept of probability as the basis of decision making under conditions of uncertainty is quite common. The more the consumer thinks a particular event is expected to occur, the greater will be the probability he assigns and vice versa.

Table 7 showing the number and percentage of complainers and non-complainers and their responses on Appendix V

<table>
<thead>
<tr>
<th>Behavior Character</th>
<th>Favourable</th>
<th>Neutral</th>
<th>Unfavourable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complainer</td>
<td>157 58%</td>
<td>84 31%</td>
<td>22 8%</td>
</tr>
<tr>
<td>Non Complainer</td>
<td>7 11%</td>
<td>20 32%</td>
<td>36 57%</td>
</tr>
</tbody>
</table>

A glance at the above table it can be noted that complainers have opted for favourable attitude towards future complaints. Nearly 58% of complainers are definite that they will complain in future. These results concur with the personal data sheet of consumers in that those who had complained earlier were the ones to complain more frequently than the non complainers. 31% of complainers have remained neutral and only 8% have opted for the unfavourable responses. This indicates that many complainers would prefer to take definite steps towards redressal.

The non-complainers on the other hand have exactly the reverse preference. Only 11% favour the active complaining response. With 57% of non-complainers not even contemplating future complaining. Most of these consumers feel that it is
"not worth the effort" to complain against Banks. Insurance companies or about the medical services. These results concur with Landon's (1977) study.

In the consumer complaint behavior studies similar findings have been reported by Shah (1994) who reported that Indian consumer prefer to remain silent because complaining against Governmental and Quasi Government utilities is a long drawn out procedures, cumbersome needing enormous efforts on the part of the individual consumer.

Both the groups (complainers and non-complainers) have approximately the same percentage of neutral responses. 30% of respondents preferring to sit on the fence and remain undecided or neutral. This characteristic is common among the Indian Consumer (Saklani and Singh, 1997). These results also indicate the predictive validity of questionnaire.

Validity

Inter item correlations and item total correlation between all possible pairs of items were generated and found to be 0.50 to 0.71. The scales were constructed gathering together those items with inter-correlations of 0.50 and above. It was interesting to note that the consumers grouped under risk takers in Appendix II were found to be scoring high on Appendix V too. Validity was established by checking the responses of consumers and comparing occupations of these consumers to their scores. It was found that 60% of the consumers who scored high in this questionnaire were in occupations that involved quick decision – making behavior, like Lawyers, General Managers, Bank Officials. While consumers in unrelated occupations scored only average levels or lower on these scales as not related to their occupations. There was considerable agreement between the scores earned by the respondents and their occupations. Convergent validity of this scale was thus established for Appendix V.
Follow-up of 30% of the consumers complaint behavior evaluating the type of action they had taken indicated relevant action prone behaviour. Complaint letters, their intensity and frequency, the visits to the concerned institution were also checked and found to be appropriate to their scores on Appendix V. Thus the scores of consumers on Appendix V is related to the respondents behavior regarding complaining.

Reliability

Here again test – retest reliability coefficient was calculated and found to be 0.81, on a sample of 50 consumers.

Table 8 showing the items and factor coefficients for the five Statements in Appendix V

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.71</td>
<td>What are the chances that you would complain about a product/service when you are dissatisfied?</td>
</tr>
<tr>
<td>0.86</td>
<td>Are you likely to complain when dissatisfaction occurs?</td>
</tr>
<tr>
<td>0.74</td>
<td>What are the chances that you will complain to the Store Manager on your next trip?</td>
</tr>
<tr>
<td>0.60</td>
<td>What are the chances that you will go back to the shop immediately and find a solution?</td>
</tr>
<tr>
<td>0.85</td>
<td>If an approximate answer is not given what are the chances that you will persist till the matter is settled?</td>
</tr>
</tbody>
</table>

Concurrent Validity with Singh (1988) Consumer Complaint Behavior Intention Questionnaire was found to be 0.51

The correlation coefficient between the scores of consumers on frequency of complaints and the propensity to complain was determined and found be 0.72. This indicates that there is a strong relationship between frequency of complaints and the propensity to complain obtained from scores of consumers on Appendix IV and V. Such results show that there exists concurrent validity of Appendix V.
Stratified Random Sampling

The main objective of stratification is to give a better cross section of the population so far as to gain a higher degree of relative precision (Singh and Chaudhary, 1986). Stratification by natural characteristics helps in improving the sampling design. Stratification also ensures adequate representation to various groups of the population, which may be of importance. Finally it also ensures a better cross section of the population than that under non-stratified population. The allocation of sample sizes to different strata was done by proportional allocation.

Calculations of means and sampling variances were done for years of experience, and income with specific relevance to the 3 services, namely Banking, Insurance and Medical.

Biases in Research

Biases can be more important than random errors and are not susceptible to statistical analysis. Biases are of three types:

1. Those arising from systematic differences
2. Those concerned with procedures for measurement of response and other variables
3. Those concerned with implementation of treatment (Cox, 1982)

Randomization is intended to ensure that absence of the first kind of bias. Thus in the present study the stratified random sampling technique has been used to remove this error. The second kind of bias has been avoided by using limited observers. Care has been taken to use only qualified experts to evaluate the questionnaire. While the third kind of error has been evened out by the follow up study of consumer complaints of 30% of the sample involved in this study.
Stratification Analysis

In any sample study, one normally encounters a heterogeneous group. To remove this heterogeneity and to make the sample units more homogeneous the stratification technique is used. In the present study, the sample units are consumers who are highly heterogeneous in income, age, and occupation. The stratification variable considered in this study is service. The three stratification areas made are namely (1) Banking, (2) Insurance and (3) Medical. The total number of respondents in this study is 300. The proportional allocation technique is used for selecting samples from each stratum.

Stratified Sampling at a Glance

Table 9 showing the break up of stratification, service-wise

<table>
<thead>
<tr>
<th>Stratum No.</th>
<th>Service</th>
<th>Total Sample Size</th>
<th>Proportional Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Banking</td>
<td>98</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>Insurance</td>
<td>107</td>
<td>21</td>
</tr>
<tr>
<td>3</td>
<td>Medical</td>
<td>95</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>300</td>
<td>60</td>
</tr>
</tbody>
</table>

The formula adopted is given by:

\[ ni = \frac{N_i}{N} \times n \]

- \( ni \) = Sample to be chosen from the \( i \)th stratum
- \( N_i \) = Size of the Stratum
- \( N \) = Total Size
- \( n \) = Number of samples considered

Sample selection has been done using the simple random sampling for each stratum. This is known as Stratified random sampling. Estimation Aspects with Stratified Random Sampling

For Stratification analysis, the mean and variance have been computed. The stratified mean is computed using the formula
The variance is computed using the formula

\[ \text{V(\bar{Y}_{st})} = \sum_{i=1}^{k} \left( \frac{\bar{Y}_{i}}{N} \right)^2 \]

For Stratification Analysis, the Age, Experience and income of respondents have been considered. These demographic variables play an important role in determining the behavioral characteristics of a respondent. The computation made are presented in the tables given below.

**Table 10 showing the mean age of consumers across services.**

<table>
<thead>
<tr>
<th>Category of Service</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banking</td>
<td>40.75</td>
</tr>
<tr>
<td>Insurance</td>
<td>42.71</td>
</tr>
<tr>
<td>Medical</td>
<td>41.77</td>
</tr>
</tbody>
</table>

**Table 11 showing the mean and S.D. of the income of Consumer, across Services**

<table>
<thead>
<tr>
<th>Category of Service</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banking</td>
<td>15.90</td>
<td>9.26</td>
</tr>
<tr>
<td>Insurance</td>
<td>14.90</td>
<td>4.11</td>
</tr>
<tr>
<td>Medical</td>
<td>18.26</td>
<td>23.20</td>
</tr>
<tr>
<td>Overall</td>
<td>16.20</td>
<td>7.22</td>
</tr>
</tbody>
</table>

\[ \text{SE} = 1.61 \]

**Table 12 showing the mean and S.D. of the years of Occupational experience of consumers across service**

<table>
<thead>
<tr>
<th>Category of Service</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banking</td>
<td>15.25</td>
<td>12.20</td>
</tr>
<tr>
<td>Insurance</td>
<td>18.50</td>
<td>5.89</td>
</tr>
<tr>
<td>Medical</td>
<td>18.10</td>
<td>9.04</td>
</tr>
<tr>
<td>Overall</td>
<td>16.70</td>
<td>4.77</td>
</tr>
</tbody>
</table>

\[ \text{SE} = 1.06 \]
Summary of Stratification Analysis

1. The average age of the respondents is found to be approximately 42 years
2. The average experience of the respondents work out to 17 years approximately
3. The average monthly income of a respondent is approximately Rs.16,200

Sample Size

At times, it is the proportion of the population with a particular attribute that becomes more relevant to the researcher than the mean value (Beri, 1993). In this study, the focus is on studying consumer complaint behavior. Hence the sample size decision have been based on estimating proportions of the standard error, which indicates the sample size to be drawn. Thus by estimating the size of standard error, the size of the population is determined. That is, if a small standard error is to be preferred, then a relatively large sample size is required. With an estimated standard error of 2 and a confidence internal of 95 percent where \( z = 1.96 \), sample size of 300 was selected.

Consumers who have experienced dissatisfaction with any one of the three services, namely Banking, Insurance and Medical were selected. Amongst them the ones who had been dissatisfied with these services but not responded to it at all were taken as the control or the non -complaining group. These are the “silent sufferers” (Hirschman, 1970) or loyal consumers who wait patiently, whose perceived control of their situation is to endure all sorts of discomfort and avoid unpleasantness (Bryant, 1989).

In the sample of 300, 237 were complainers and 63 were non -complainers. They were identified from in and around Chennai city. Both male and female consumers were selected based on the operational definition of 'Consumer' in the
present study. The rural consumers who participated in the study were from Karaikudi, Tanjore, Kancheepuram and Erode.

Test for proportions

To test for the difference between sample proportion and population proportion. The formula used is

\[ z = \frac{P - p}{\sqrt{P p / n}} \]

where

- \( P = \) sample Proportion
- \( p = \) Population proportion
- \( n = \) number of samples

The aim is to find out whether the sample proportion of complainers is significant or not. The calculated Zo value is 39.50, while the table value Ze = 1.96. The data thus reveal that the sample proportion of complainers is significant.

Demographic Variables

Demographic research is concerned with gathering statistics about consumers. The consumer most likely to voice a complaint differs from the non-complainer on a number of demographic characteristics (Diamond, Ward and Faber, 1974; Mason and Hines, 1973; Warland, Hermann and Willits, 1975). These findings served as a basis for sample selection. Informative measure of Education, Income, Occupation was utilized. Each of these demographic characteristics were collected and statistically analyzed. These characteristics describe accurately and specifically certain consumer variables.

Main Study : Research Design

A multivariate research design, cross sectional in nature was used with personality, buying behavior, complaint frequency, complaint methods and proneness
to complain were taken up for this study of Consumer Complaint Behavior in the three service areas namely, Banking, Insurance and Medical Services.

Consumer Complaint Behavior variables include: Frequency of Complaints, Tendency to Complain, Methods of Complaints.

**Independent Variable – Predictor Variable:** Age, Occupation – Professional and Non-professional, Gender Differences, Geographical location – Urban and Rural, Years of experience, Monthly Income, Size of family, Type of occupation, educational qualification, Personality – External or Internal (Locus of Control), Buying Behavior – Thrifty, Risk Taker, Impulsive, Optimist and Conservative.

**Selection of Service Areas:**

Due to response variation across product/service categories, it was important to focus on some specific categories (Singh, 1990). Three services were selected for the study, namely Banking, Insurance and Medicine. The selection of services rather than products was guided by two factors: several studies report that services entail greater dissatisfaction than products (Best and Andreasen, 1977); and (b) few studies have investigated service dissatisfaction. These service categories were purposely selected in order to obtain complaint data over a range of dissatisfaction. All organizations need to adapt in order to survive and prosper. Service organizations must adapt. Service organizations exist as a function of their customer’s service quality, which is their primary survival strategy. To achieve service quality, there needs to be a climate for service (Schneider and Chung, 1993). High quality customer service means profits. Customer service represented more than 40% of the importance weight of quality in customer service, (Somasundaram, 1992). Customer
need should always drive a company. Service areas chosen in this study are: Banking, Insurance and Medical.

Table 13 showing the break-up of Complainers and non-complainers, their personality across the three service areas

<table>
<thead>
<tr>
<th>Service</th>
<th>External</th>
<th>Internal</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complainer</td>
<td>Non-complainer</td>
<td>Complainer</td>
</tr>
<tr>
<td>Banking</td>
<td>24</td>
<td>1</td>
<td>55</td>
</tr>
<tr>
<td>Insurance</td>
<td>22</td>
<td>10</td>
<td>60</td>
</tr>
<tr>
<td>Medical</td>
<td>19</td>
<td>5</td>
<td>57</td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>16</td>
<td>172</td>
</tr>
</tbody>
</table>

Out of 79 Complainers in the Banking sector, 55 belonged to the internal group and 24 believed in the external factors. 18 Non complainers believe in internal factors and only 1 believed in external factors. 22 complainers in the Insurance sector were believed to be externals and 60 were internals. 15 Non complainers were internals and 10 externals. Under the Medical sector, 19 complainers and 5 non-complainers belonged to the external group whereas 57 complainers and 14 non-complainers belonged to the internal group.

Internals, believe in their own capacity to handle situations on their own. Hence more complainers belonged to this category. However in the Indian Scenario consumers tend to believe more on luck, chance and fate. When consumers believe they are in the lucky phase as per their horoscopes, their perceived control over external environment increases appreciably (Bryant, 1989).

The Final study

With the reliability and Validity of the instruments established, the final study was conducted.
Selection of Sample

This study was conducted on a sample of 300 consumers. The operational definition of the consumer for the present study specifies that a consumer:

(a) must be between the age group of 30 and 55 years
(b) must be college educated, that is a graduate
(c) must be earning an income of Rs.10,000/- and above
(d) must have been working for a minimum period of 5 years

The operational definition of complaint behavior included a consumer who had experienced dissatisfaction with a service.

40% of this sample comprised of women. One-third the sample was selected from the rural areas of Karur, Arakonam, Karaikudi, Erode and Tanjore, in Tamilnadu. The urban sample was selected from Chennai. Special efforts were taken to include consumers from all parts of Chennai. Consumers from different occupations were included in this sample.

Since the Ex Post Facto Research method was followed, sample selection was absolutely incidental. Consumers with dissatisfaction in any one of the service areas were included in the research. Post Purchase behavior is viewed in this study as a series of steps in which consumers compare their expectations to perceived reality, experience satisfaction or dissatisfaction, and then act in a way influenced by that satisfaction or dissatisfaction (Andreasen, 1976; Gilly, 1979)

Selection of respondents for this study was done on the non-probability sampling. Non probability samples are used frequently in marketing research (Beri, 1993).

Data Analysis

The data collected have been analyzed using several statistical techniques.