CHAPTER 3

RESEARCH METHODOLOGY
3.1) INTRODUCTION

Research methodology is a way of systematically solving the research problem. It may be understood as a science of studying how research is done scientifically (Kothari, 2006). To carry out this research study, a systematic model and procedure was developed. Methodology of any research means the selection of representative sample, collection of relevant data, applying appropriate research tools and techniques, analysis and interpretation of the same for scientific investigation of the problem. This chapter deals with the methodology adopted in undertaking this research. It provides a stepwise description of how the research was carried out starting from problem definition.

3.2) PROBLEM DEFINITION

The first step in any research study is to define the problem. A problem does not necessarily mean that something is seriously wrong with a current situation that needs to be rectified immediately. A problem could simply indicate an interest in an issue where finding the right answers might help to improve an existing situation. Thus it is fruitful to define a problem as any situation where a gap exists between the actual and the desired ideal status (Sekaran, 2003). In defining the problem, the researcher should take into account the purpose of the study, the relevant background information, the information needed, and how it will be used in decision making (Malhotra, 2006). To gain an insight into the kind of research undertaken in insurance and competitive strategy, a detailed review of literature was undertaken. The review of literature helped in specifying the research problem in meaningful context.

Services now account for almost half of the world trade. India due to its strong competitive position in skilled labour, technical expertise can gain immensely by focusing on this fastest growing segment of world trade. Insurance is an important segment of financial services and it has a large potential in this country majority of the population is uninsured or under insured. Life insurance has to be treated as an essential component of one’s portfolio and the need for this should be considered at the very commencement of one’s earning phase. The amount of life insurance should also be commensurate with the quantum of earnings so that in the unfortunate event of the breadwinner’s death, the family can continue to maintain the
same standard of living. In India insurance has not received its due recognition. Review of literature (Ch. 2) reveals that very little research has been done on insurance industry in India. Considering the fact that insurance is coming up in a big way in India, there is an emergent need for doing research on various facets of insurance industry. Only 20 per cent of the total insurable population of India is covered under various life insurance schemes, the penetration rates of health and other non life insurances in India is also well below the international level (RNCOS, 2005). This is an indicator that the growth potential for the insurance sector is immense in India. The reasons for undertaking this research study are given below.

a) Insurance has a very long history still enough studies have not been done in the field of strategy of insurance companies. This research study is an effort to fill that gap.

b) Although different authors have written about competitive advantage and strategy, it has been ignored in the field of insurance services. In this project, effort will be made to study competitive strategies in the field of insurance management.

c) After the liberalisation of the insurance market, many companies have flooded the market but the major chunk of the market lies with a few companies only. It may be worthwhile to understand the strategic thrust of the existing companies.

d) Consequent to the globalisation and liberalisation, the consumers has become more critical of the quality of service. Consumers are now aware of the alternatives available in relation to services and the provider’s organisations. Consumer’s expectations are rising and the companies should be aware of these expectations.

The present research study has been stated as “Competitive Strategies of Selected Life Insurance Companies in India: An Empirical Study.”

3.3) NEED OF THE STUDY

A research study should make a contribution towards the subject. If it does not significantly contribute towards the existing body of knowledge, its pursuance is not useful. This section gives how the present research study is useful in the field of strategy and insurance in Indian context. The review of literature has doubtless provided considerable knowledge on the
concept of strategy, insurance and customer satisfaction but the strategy and satisfaction research is short of theoretical and empirical studies in the field of insurance. This research study is an effort to understand the strategic thrust of the life insurance companies. A research of this kind will be helpful in assessing the consumer perception about services of insurance companies. It will also help the new entrants in the insurance sector to formulate the product mix and devise their marketing strategies accordingly. This study will also help the customer to take a well informed decision while opting for insurance products and services provided by a particular organisation, which fulfils their needs and wants in a best possible manner. The research will help the insurance companies for providing quality services to their customers, which is must to retain them. The research will help the insurance companies to identify the areas needing improvement.

3.4) SCOPE OF THE STUDY

The scope of the study is classified under three heads: insurance sector; number of companies; regions and model. Each of these is discussed below:

3.4(1) Insurance Sector

Insurance market activity, both as financial intermediary and as provider of risk transfer and indemnification, promotes economic growth by allowing different risks to be managed more efficiently. This study is restricted to the life insurance sector only. This is done keeping in mind the following three reasons:

a) Social significance of life insurance

Life insurance has a social significance, especially in a poor country like India. The insurance provides safety and security against the loss of earning at death or in old age. In India, all the family members depend upon one earner. In case of his death, the family loses the only source of income. The MAX-NCAER survey on How India Earns, Spends and Saves reveals that about 96 per cent of Indian households cannot survive for more than a year on their savings if the major source of household income is lost *(Businessworld, 2010)*. Insurance assists in case of such financial instability, and provides adequate amounts at the time of sufferings. Insurers have a social
responsibility to promote loss minimisation and risk improvement in all fields of activity through research and publicity and by rewarding such efforts in premium rates. Apart from the fact that it is good for their business, it also shows them in a better role of social responsibility.

b) Growth potential in this sector

Although the liberalised insurance market is new, all the data suggests that there is immense growth potential in this field. The Indian life insurance industry is rapidly evolving and has emerged as one of the fastest developing emerging markets for life insurance in the world. While lack of social security system in India is viewed as negative, it has a positive impact on saving habits of Indian households. India has traditionally been a high savings oriented country with a large middle class that can afford to buy life, health, and disability insurance as well as pension plan products. Around 81.4 per cent of households at the all India level save some part of their income, out of which 36 per cent keep their savings at home, as cash. This money can be channeled in the insurance market (Businessworld, 2010).

c) Market is not controlled by tariffs

In general insurance, the rates, terms, and conditions that the insurers could offer for their products were established by the Tariff Advisory Committee (TAC), a statutory body created under the Insurance Act of 1938. The nature of this tariff system meant that premiums were fixed at the same rate for all companies, products were undifferentiated, and coverage was limited in almost every line. Lack of claims data has meant that such tariffs are currently set based on assumptions, rather than an assessment of risk. As a result, market distortions occur. The insurance regulator does not fix any premium in the life insurance sector, therefore, market forces play a major role here. At present, general insurance is also detariffed since January 1, 2007.

3.4(2) Number of Companies

Although there were 15 life insurance companies in the market (as on March 31, 2006) only top five Life Insurance companies including LIC, were studied, as they constituted 92 per
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cent of the market share (Table: 3.1). The companies were selected on the basis of their respective market shares. As per IRDA (2006), these companies were; LIC India, Bajaj Allianz Life Insurance, ICICI Prudential Life Insurance, HDFC Standard Life Insurance and SBI Life Life Insurance. The reason for studying these five companies is that it would provide an opportunity to undertake an in depth analysis. Most of the remaining companies had negligible market share.

Table: 3.1

Market Share (in %) as on March 31, 2006

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Company</th>
<th>Market Share (in %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LIC of India</td>
<td>71.439</td>
</tr>
<tr>
<td>2</td>
<td>Bajaj Allianz</td>
<td>7.565</td>
</tr>
<tr>
<td>3</td>
<td>ICICI Prudential</td>
<td>7.347</td>
</tr>
<tr>
<td>4</td>
<td>HDFC Standard</td>
<td>2.866</td>
</tr>
<tr>
<td>5</td>
<td>SBI Life</td>
<td>2.308</td>
</tr>
<tr>
<td>6</td>
<td>Birla Sunlife</td>
<td>1.889</td>
</tr>
<tr>
<td>7</td>
<td>Tata AIG</td>
<td>1.291</td>
</tr>
<tr>
<td>8</td>
<td>Max New York</td>
<td>1.235</td>
</tr>
<tr>
<td>9</td>
<td>Aviva</td>
<td>1.136</td>
</tr>
<tr>
<td>10</td>
<td>Kotak Mahindra Old</td>
<td>1.107</td>
</tr>
<tr>
<td>11</td>
<td>ING Vysya</td>
<td>0.791</td>
</tr>
<tr>
<td>12</td>
<td>Reliance Life</td>
<td>0.539</td>
</tr>
<tr>
<td>13</td>
<td>Met Life</td>
<td>0.397</td>
</tr>
<tr>
<td>14</td>
<td>Sahara Life</td>
<td>0.061</td>
</tr>
<tr>
<td>15</td>
<td>Shriram Life</td>
<td>0.029</td>
</tr>
</tbody>
</table>


### 3.4(3) Geographic Scope

The information was collected from the offices of the selected companies located in Chandigarh tricity (Chandigarh, Mohali, Panchkula) and three cities of Punjab viz. Amritsar, Ludhiana and Jalandhar only. Punjab consists of four regions i.e. Malwa, Majha, Doaba and Powadh. Each of these regions has a specific location, area, extension and shape, culture and physical environment.
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a) **Doaba** region is an important region of Punjab, which lies between rivers Beas and Satluj. Therefore it is called ‘Bist Doab’. Doab is a Persian term meaning “between two waters”. It spreads over four districts, namely, Kapurthala, Hoshiarpur, Jalandhar and Nawashehar. Doaba is a bit larger than Majha but is nearly one fourth of size of Malwa region. It has an area of 8844 square kilometers, which is 17.6 per cent of the total area of Punjab. It has 19.64 per cent population of Punjab. It is triangular in shape, with it base at Himachal Border and the apex at the Beas Sutlej confluence. Jalandhar is most populated district of the region.

b) **Majha**, meaning “the central plains” or “the central country” is also called ‘Upper Bari Doab’. The region is surrounded by three rivers; Ravi in the west, Beas in the east and Sutlej in the south. It consists of three districts namely, Amritsar, Gurdaspur and Tarn Taran. It has an area of 8658 square kilometers, 17.17 per cent of the total area of Punjab. According to 2001 census, Majha is the most densely populated area of Punjab contributing around 21 per cent of population of the state. Amritsar is the largest populated city of the region.

c) **Malwa** region lies between the Sutlej and Yamuna rivers. It is bounded by the River Sutlej in the north, Haryana in the east and the south, Rajasthan in the southwest corner, and by Bahawalpur state of Pakistan in the west. During the Mughal era, Malwa was known as Sirhind, since it consisted of the city by that name. It is the largest region of Punjab spreading over 10 Districts namely Firozepur, Faridkot, Bhatinda, Barnala, Moga, Muktsar, Mansa, Sangrur, Ludhiana, and Patiala. With an area of 32,808 square kilometers and a population of 11,817,142 (1991 census), Malwa is the largest region of the present Punjab. It has 65.1 per cent of the total area and 58.5 per cent of the total population. Ludhiana is most populated district of the region.

d) **Powadh (or Puadh or Powadha)** is a region of Punjab and parts of Haryana between the Sutluj and Ghaggar rivers. The Powadh extends from that part of the Rupnagar District which lies near Sutluj up to the Ghaggar river in the east, which separates the
states of Punjab and Haryana. Parts of Fatehgarh Sahib District, and parts of Patiala districts like Rajpura are also part of Powadh. Powadh is a vast region, consisting of the districts of Rupnagar, Mohali, part of Patiala District around the Ghaggar river and parts of Fatehgarh Sahib District as well as Chandigarh and Panchkula.

One city was chosen from each of these regions. These cities were selected through cluster sampling.

3.4(4) Research Model
M.E. Porter’s generic strategies model formed the basis of the research. The purpose is to identify which generic strategies are being used by the companies and under which conditions these are applied. A company’s strategy is reflected in its actions in the marketplace and the statements of senior managers about the company’s current business approaches, future plans, and efforts to strengthen its competitiveness and performance. Normally the markets are diverse enough to give companies a wide degree of strategic freedom in choosing the hows of strategy. Although there are many strategic frameworks, it is believed that Porter’s framework of generic strategies and competitive dimensions provides a potentially valuable research tool for classifying the strategies of all competitors within an industry (Dess and Davis, 1984). The notion of strategic choice recognises that similar organisations operating within the same environment may choose to address that environment differently based on the strategic orientation of their management. Despite the differences all strategy frameworks have one thing in common, which is that they all aim at maximising the performance of an organisation by improving its position in relation to other organisations operating in the same competitive environment (Feurer and Chaharbaghi, 1997). Porter’s framework has been applied mainly to manufacturing industries, although he discusses the applicability of this model to services, broadly taken.

3.5) RESEARCH OBJECTIVES
The research objectives of this study were determined after conducting a thorough review of literature. The contradictions and gaps in existing literature were identified and then the research objectives were formulated. The objectives of the research study are:
1) To identify and study the competitive strategies of selected life insurance companies in India.

2) To compare the competitive strategies of top four private life insurance companies with the public sector company i.e. LIC. The companies are selected on the basis of their market share as on March 31, 2006.

3) To critically evaluate current competitive strategies being practised by leading insurance companies.

4) To recommend suitable strategies for insurance companies to enhance their market share.

5) To identify the factors affecting customers’ satisfaction.

3.6) RESEARCH DESIGN

The research design is a master plan specifying the methods and procedures for collecting and analysing the needed information. It is the framework or blueprint that plans the action for the research project (Zikmund, 2004). The preparation of such a design facilitates research to be as efficient as possible yielding maximal information. The details of data collection procedures and the schedule of analytical procedures to be used in order to accomplish the research objectives are also dealt within research design (Krishnaswamy et al., 2006). Once the research problem is identified and defined clearly, the next stage is to design the research. The present study is designed to investigate the competitive strategies of life insurance companies. In order to study this, following research design is used, which explains the details of research type, sampling plan, data collection methods and analytical tools used in this study.

3.6(1) Type of research

This research is empirical in nature. Empirical research is a data based research, coming up with the conclusions which are capable of being verified by observation or experiment (Kothari, 2006). The information was obtained from respondents who were managers and customers of five life insurance companies, using questionnaires. A questionnaire is pre-formulated written set of questions to which respondents record their answers, usually within rather closely defined alternatives. Two different sets of questionnaires were used to collect
information from the company managers and the customers. The purpose of collecting information from the managers was to assess the strategies followed by their respective companies and the purpose of contacting the customers was to identify factors which positively affect their satisfaction level. The well structured questionnaires were used to fulfill these objectives.

3.6(2) Sampling Plan

A sampling plan is a mechanism by which the sampling units of a study are selected from the sampling frame of the population. The sampling plan with details of sampling design, sample size and sampling method is discussed in this section.

3.6(2.1) Sampling Design:

As mentioned in the scope, top five life insurance companies and four locations were selected for the study. The life insurance companies were selected on the basis of their market share and the cities were selected using cluster sampling method. The customers of these life insurance companies, and managers at branch level and above were the respondents for this study.

3.6(2.2) Sample Size:

A sample may simply be defined as a portion of the population. The sample is expected solely to present an exact microscopic reflection of the population. The sample size in this project consisted of five insurance companies. A two tier study was designed with the purpose of finding out the strategies of the respective companies and the factors which affect the satisfaction level of customers. The research study was undertaken at company level with 4 managers of each company and at customers’ level with 50 customers of each company. The total sample size was 20 for managers and 250 for customers. Strategy is the business of top management, therefore only one manager of each company from every branch was selected as the respondent. It was assumed that all members of the top management team had knowledge of the strategy of their firm, and that the strategy could be
inferred on the basis of the emphasis or importance given to various competitive methods available to the firm.

**Table: 3.2**

<table>
<thead>
<tr>
<th></th>
<th>Mohali</th>
<th>Amritsar</th>
<th>Jalandhar</th>
<th>Ludhiana</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Managers</strong></td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td><strong>Customers</strong></td>
<td>100</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>250</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>105</td>
<td>55</td>
<td>55</td>
<td>55</td>
<td>270</td>
</tr>
</tbody>
</table>

As the number of population could not be determined, sample size for customers was selected by using Cocharan’s (1977) formula.

\[
n_0 = \frac{t^2 \times s^2}{d^2}
\]

Where \(n_0\) = Sample size
\(t\) = Level of risk the researcher is willing to take that true margin of error may exceed the acceptable margin of error. Five per cent level of significance was taken, whose value was 1.96.
\(s\) = Estimate of standard deviation of the population calculated by the formula:

\[
S = \frac{\text{Number of points on the scale}}{\text{Number of standard deviations}}
\]

A five point was used and six standard deviations (three to each side of the mean) was taken to capture 98 per cent of all responses. As a result, the value of \(S\) came out to be 0.83333.
\(d\) = Acceptable margin of error for mean being estimated calculated using formula:

\[
d = \frac{\text{Number of points on primary scale}}{\text{Acceptable margin of error}}
\]
For categorical data, 5 per cent margin of error is acceptable, and, for continuous data, 3 per cent margin of error is acceptable (Krejcie and Morgan, 1970). For example, a 3 per cent margin of error would result in the researcher being confident that the true mean of a five point scale is within ±0.15 (0.03 times five points on the scale) of the mean calculated from the research sample.

Using the formula, sample size was calculated

\[ n = \frac{1.96^2 \times 8.33^2}{0.15^2} \]

\[ n = 118 \]

Following the available literature on the determination of the sample size, the appropriate sample size for the present study comes out to be 118 for the continuous scale with a given confidence level and margin of error. However, the researcher has taken the sample of 250 respondents, which is greater than the calculated number.

3.6(2.3) Method of Sampling:

Cluster sampling method was used to select the cities for data collection and judgment sampling method was used to select the respondents. Cluster sampling is a sampling technique in which the entire population is divided into groups, or clusters, any of which may be considered as a representative sample and a random sample of these clusters is selected. Each cluster must be mutually exclusive and together the clusters must include the entire population. Once clusters are established a random draw is done to select one or more clusters to represent the population. No units from non selected clusters are included in the sample. This differs from stratified sampling, in which some units are selected from each group. The stepwise procedure of cluster sampling as it was done is detailed below:

Step 1: Choosing the cluster groups for the sampling frame

As it is not possible for a researcher to cover a wide geographical area due to time and financial constraints, it was decided to limit the scope of this study into fewer
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cities. Historically, Punjab was divided into four regions, Doaba, Majha, Malwa, and Powadh. Therefore, it was decided to select one city from each region for the purpose of data collection. The cluster sampling method was used for the selection of each city from the four regions. The district headquarters lying in these regions were considered as clusters. The Table: 3.3 shows districts lying in each region. At present there are twenty districts in Punjab.

Table: 3.3
Districts in Doabas

<table>
<thead>
<tr>
<th>Doaba</th>
<th>Majha</th>
<th>Malwa</th>
<th>Powadh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoshiarpur</td>
<td>Amritsar</td>
<td>Barnala</td>
<td>Mohali</td>
</tr>
<tr>
<td>Jalandhar</td>
<td>Gurdaspur</td>
<td>Bathinda</td>
<td>Fatehgarh Sahib</td>
</tr>
<tr>
<td>Kapurthala</td>
<td>Tarn Taran</td>
<td>Faridkot</td>
<td>Ropar/Rupnagar</td>
</tr>
<tr>
<td>Nawanshahr</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Firozpur</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ludhiana</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mansa</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Moga</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Muktsar</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Patiala</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sangrur</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Parts of Patiala and Fatehgarh Sahib lie in Powadh and Malwa respectively. As majority of Patiala lies in Malwa and that of Fatehgarh Sahib in Powadh, they are included in the said regions.

Step 2: Applying random sampling method

To select the clusters for research, simple random sampling method was used. In simple random sampling, each element in the population has an equal probability of selection. Random sampling was done for each of the four clusters. First of all the names of the cities were arranged alphabetically and then these were entered in MS Excel. After putting the formula for random sampling, the following lists were produced.
Table: 3.4A  
**Random Sampling Solution for Cluster 1, Doaba**

<table>
<thead>
<tr>
<th>RAND#</th>
<th>Doaba</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.107172679</td>
<td>Jalandhar</td>
</tr>
<tr>
<td>0.410415678</td>
<td>Kapurthala</td>
</tr>
<tr>
<td>0.489460756</td>
<td>Hoshiarpur</td>
</tr>
<tr>
<td>0.754959383</td>
<td>Nawanshahr</td>
</tr>
</tbody>
</table>

Table: 3.4B  
**Random Sampling Solution for Cluster 2, Majha**

<table>
<thead>
<tr>
<th>RAND#</th>
<th>Majha</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.186727983</td>
<td>Tarn Taran</td>
</tr>
<tr>
<td>0.291051339</td>
<td>Amritsar</td>
</tr>
<tr>
<td>0.30804517</td>
<td>Gurdaspur</td>
</tr>
</tbody>
</table>

Table: 3.4C  
**Random Sampling Solution for Cluster 3, Malwa**

<table>
<thead>
<tr>
<th>RAND#</th>
<th>Malwa</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.042861808</td>
<td>Mansa</td>
</tr>
<tr>
<td>0.175818628</td>
<td>Ludhiana</td>
</tr>
<tr>
<td>0.24965738</td>
<td>Barnala</td>
</tr>
<tr>
<td>0.359078394</td>
<td>Muktsar</td>
</tr>
<tr>
<td>0.598385736</td>
<td>Firozpur</td>
</tr>
<tr>
<td>0.616757492</td>
<td>Moga</td>
</tr>
<tr>
<td>0.678583348</td>
<td>Patiala</td>
</tr>
<tr>
<td>0.706430565</td>
<td>Sangrur</td>
</tr>
<tr>
<td>0.888023085</td>
<td>Bathinda</td>
</tr>
<tr>
<td>0.939957735</td>
<td>Faridkot</td>
</tr>
</tbody>
</table>

Table: 3.4D  
**Random Sampling Solution for Cluster 4, Powadh**

<table>
<thead>
<tr>
<th>RAND#</th>
<th>Powadh</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.078948811</td>
<td>Mohali</td>
</tr>
<tr>
<td>0.368005078</td>
<td>Ropar/Rupnagar</td>
</tr>
<tr>
<td>0.74452854</td>
<td>Fatehgarh Sahib</td>
</tr>
</tbody>
</table>
Step 3: Selecting the final clusters
In the random sampling solution, the city which was on the top of the list in each region was selected for this study. The cities selected as a result were Jalandhar, Tarn Taran, Mansa and Mohali. The offices of all the insurance companies are located in these selected cities except SBI Life Insurance Company, which is not operating in Tarn Taran and Mansa, therefore it was decided to skip these two locations and select two subsequent cities, which were Amritsar and Ludhiana. Eventually, four cities were finalised for the study; Amritsar, Jalandhar, Ludhiana, and Mohali. Due to Mohali’s proximity with Chandigarh and Panchkula, and the fact that many people daily commute between these cities for education and work purposes, the tricity was considered as a single location.

3.6(3) Data Collection Procedure
The task of data collection begins after the research problem is defined and the research design is chalked out. The sources of data are usually people and existing records. This study being empirical in nature relies on both the primary and the secondary data to achieve the objectives but the content of the primary data was more in it. The secondary data was collected from published and unpublished sources such as journals, magazines, websites of IRDA, working papers of Ministry of Finance, Planning Commissions and insurance companies etc. Primary data for research was collected with the help of self administered questionnaires which were specifically designed to achieve the objectives of this study.

3.7) QUESTIONNAIRE DEVELOPMENT
Fig: 3.1 is a diagram of the sequence of steps that can be followed and a list of some calculations that should be performed in developing measures of marketing constructs. Churchill (1979)\(^\text{16}\) suggests that some of these measures can be set aside because there are better alternatives or, if they are used, that they should at least be interpreted with the proper awareness of their shortcomings. Broadly, the steps given in this diagram were followed for development, refinement and validation of the research instrument. The general procedure followed in developing the research instrument starts with the specification of the theoretical...
construct. In this step, a comprehensive review of literature was undertaken to identify the relevant variables.

**Fig: 3.1**

**Suggested Procedure for Developing Better Measures**

1. Specify domain of construct
2. Generate sample of items
3. Collect data
4. Purify measure
5. Collect data
6. Assess reliability
7. Assess validity
8. Develop norms

**Recommended Coefficients or Techniques**

- Literature Search
- Literature search
- Experience survey
- Insight stimulating examples
- Critical incidents
- Focus groups
- Coefficient alpha
- Factor analysis
- Coefficient alpha
- Split-half reliability
- Multitrait-multimethod matrix
- Criterion validity
- Average and other statistics
- Summarizing distribution of scores

3.7(1) Competitive Strategy

The research instrument pertaining to competitive strategy was basically drawn from the works of Porter (1980, 1985). Following a review of these books, an instrument was inductively derived to evaluate the various competitive methods that might be used to characterise a particular generic strategy. Porter recognises that the strategies that companies use to compete in an industry can differ in a wide variety of ways, and he proposes a number of “strategic dimensions” that should capture the possible differences among the strategic options of companies in a given industry. These dimensions are comprised of competitive methods that include brand identification, channel selection, technological leadership, cost position, service, and leverage, among others. These competitive methods provide a means for characterising the strategies of competitors within an industry. A group of firms within an industry that follows the same or a similar strategy will comprise a strategic group (Porter, 1980). Other inputs were also taken through a review of questionnaire items used by previous strategy researchers (Dess and Davis, 1984; Hlavacka et al, 2001) and the top competitive weapons identified by Bourgeois (1980) were also included in the questionnaire. Based on the review of literature, the following variables were finalised.

A differentiation strategy calls for the development of a product or service that offers unique attributes that are valued by customers. The value added by the uniqueness of the product may allow the firm to charge a premium price for it. In order to identify the differentiation based competitive strategy, the respondents were asked to indicate the extent to which their company engaged in competitive activities involving:

a) Collecting and evaluating information concerning general social trends that might affect the business;

b) Periodically reviewing product development efforts to ensure that they are in line with customers’ expectations and whether business plans are driven by market research;

c) Taking corrective action, if customers are found to be unhappy with the quality of service;

d) Whether quality of their products and services is source of competitive advantage;
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e) Whether policy features are their product’s biggest selling point.

Cost leadership strategy aims to achieve the overall lowest cost structure in an industry. This can be achieved by having efficient business system by economy of scale and cost efficiencies. Cost leadership not only helps a firm to undercut competition but also gain market share along with better profit margins. For low cost based competitive strategy, the respondents were asked to indicate whether;

a) Their organisation makes efforts to effectively coordinate the activities of each employee and each department.
b) The company is concerned with the performance of agents;c) Competition in the market concerns them;d) Whether their products are similar as that of competitors’;
e) A periodically comparison is done to gauge the effectiveness of alternative methods of distribution;
f) Price/ premium is an important determinant in the buying decision;
g) Low cost is their product’s biggest selling point.

Focus strategy is based upon the choice of a narrow competitive scope within an industry. The rationale behind this strategy is that a firm can be more effective and efficient by focusing its efforts to a narrow target. It aims to engage either cost leadership strategy or differentiation strategy in a segment of the market. Focus strategy was measured by asking respondents whether their company is:

a) Targeting specific market segments;
b) More focused on specific group of customers than competitors.

3.7(2) Customer Satisfaction

For developing the questionnaire regarding customer satisfaction, an extensive review of literature was done. Customer satisfaction has become a fundamental construct in marketing practice given its importance and established relationship with customer retention, customer repurchase behavior, and firm profitability. There is an abundant literature concerning the determinants of customer satisfaction judgments. The marketing literature reports that the
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impacts of the determinants on satisfaction are often dependent upon the product/service class under investigation. Even within a product or service, the salience or impact of these various determinants on satisfaction has been shown to be heterogeneous across the customer population.

Churchill (1979) states that, the search for ways to measure customer satisfaction would include product brochures, articles in trade magazines and newspapers, or results of product tests such as those published by Consumer Reports. Wu et al (2006)\textsuperscript{21} assume that the primary determinants of overall satisfaction judgments are performance, expectation, and disconfirmation. Oliver and DeSarbo (1988)\textsuperscript{32} have considered determinants such as equity and attribution, together with the three previous ones. Szymanski and Henard (2001)\textsuperscript{23} found that service quality is the main driver of customer satisfaction with service provider; however different factors influence service quality which depend on the field in which research is carried out (Dovalienė et al, 2007)\textsuperscript{24}. The result of literature review puts forth that overall customer satisfaction has multiple components such as product satisfaction (Oliver, 1993\textsuperscript{25}; Homburg and Rudolph, 2001\textsuperscript{26}), interpersonal satisfaction (Preis, 2003\textsuperscript{27}; Homburg and Rudolph, 2001), and performance satisfaction (Homburg and Rudolph, 2001). Product quality, design, price, and even brand name are attributes affecting satisfaction with the product. Interpersonal satisfaction includes satisfaction with the salesperson’s trustworthiness, knowledge, support in problem solving, understanding of customers, and service after the sale. Performance satisfaction includes delivery, installation, orientation, and training (Homburg and Rudolph, 2001). Several researchers have found that interpersonal satisfaction is an important component of overall satisfaction (Oliver and Swan, 1989\textsuperscript{28}; Crosby et al, 1990\textsuperscript{29}). Bitner et al (1990)\textsuperscript{30} found that for services, the quality of customers’ contacts with salespeople is critical to overall satisfaction. Other researchers also found human interaction component to be of importance in evaluating services (Brown and Swartz, 1989\textsuperscript{31}; Surprenant and Solomon, 1987\textsuperscript{32}; Goff et al, 1997\textsuperscript{33}). A study of relationship marketing in the life insurance industry found clients’ satisfaction with their contact person (or agent) to be a significant predictor of overall satisfaction with the service (Crosby and Stephens, 1987\textsuperscript{34}). Ostrom and Iacobucci
consider four attributes: price, quality, friendliness, and customisation for service organisations.

The variables finalised for this study were broadly taken as product satisfaction, interpersonal satisfaction and performance satisfaction. Here, product satisfaction includes satisfaction with product quality, design, price, and even brand name. Interpersonal satisfaction has two dimensions. It includes satisfaction with employees and with agent distribution channel. The employees were evaluated on three dimensions: competence, helpfulness, and sociability (Surprenant and Solomon, 1987). Performance satisfaction includes clarity in terms, after sales communication, ease in premium payment.

3.8) RELIABILITY

Prior to the analysis of the data, the research instrument was tested for its reliability. Reliability of a measure indicates the extent to which it is without bias (error free) and hence ensures consistent measurement across time and across the various items in the instrument. Two dimensions underlie the concept of reliability: one is repeatability and the other is internal consistency. The rationale for internal consistency is that the individual items or indicators of the scale should all be measuring the same construct and thus be highly intercorrelated (Hair et al., 1998). Internal consistency was estimated using a reliability coefficient called Cronbach's alpha.

\[
\alpha = \frac{kr}{1 + (k-1)r}
\]

Cronbach's alpha is a reliability coefficient that indicates how well the items in a set are positively correlated to one another. It is computed in terms of the average intercorrelations among the items measuring the concept (Sekaran, 2003). This method is based on splitting the data in two in every possible way and computing the correlation coefficient for each split. The average of these values is equivalent to Cronbach's alpha (Field, 2005). This coefficient varies from 0 to 1, and a value of 0.6 or less generally indicates unsatisfactory internal consistency reliability (Malhotra, 2006). The formula that determines the alpha
Research Methodology makes use of the number of items in the scale (k) and the average correlation between pairs of items (r).

3.8(1) Reliability Test for Competitive Strategy Instrument
Three different scales were used in competitive strategy questionnaire to catch the essence of differentiation, cost leadership and focus strategies. The reliability for each scale was tested separately. The differentiation scale had 11 items, cost leadership scale had 10 items and focus scale had 4 items. The number of respondents was 20 in each case. The Cronbach Alpha for these scales are:

<table>
<thead>
<tr>
<th>Scale</th>
<th>Alpha Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differentiation</td>
<td>0.7820</td>
</tr>
<tr>
<td>Cost Leadership</td>
<td>0.8490</td>
</tr>
<tr>
<td>Focus</td>
<td>0.6105</td>
</tr>
</tbody>
</table>

The reliability of all the scales exceeded the value of 0.6, therefore, it was considered that the scale used is reliable.

3.8(2) Reliability Test for Customer Satisfaction Instrument
Again, Cronbach alpha was calculated, to test the reliability of the customer satisfaction scale. The scale comprised of 16 variables. The number of respondents was 210. The reliability coefficient indicated that the scale for measuring customer satisfaction was quite reliable as the alpha coefficient was 0.8674. In this case also, the reliability of scale exceeded the recommended 0.6 threshold. Thus it was considered that the scale used is reliable.

3.9) SCALE VALIDATION
The validity of a scale may be defined as the extent to which differences in observed scale scores reflect true differences among objects on the characteristic being measured, rather
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than systematic or random error. Reliability is a necessary condition for validity, but a reliable instrument may not be valid (Zikmund, 2004). Validity is the degree to which a measure accurately represents what it is supposed to represent. Researchers may assess content validity, criterion validity, or construct validity (Malhotra, 2006). Construct validity is the most sophisticated and difficult type of validity to establish. According to Peter (1981), construct validity pertains to the degree of correspondence between constructs and their measures. It is a necessary condition for theory development and testing.

The content validity and construct validity of questionnaires was checked in this research study. If the sample is appropriate and the items “look right”, the measure is said to have face or content validity. Content validity tests the degree to which the instrument provides an adequate representation of the conceptual domain that is designed to cover. If the items representing the various constructs of an instrument are substantiated by a comprehensive review of the relevant literature, content validity can be ensured. As detailed earlier (Section 3.7), the content validity of both the questionnaires was enhanced through a review of questionnaire items used by previous strategy and customer satisfaction researchers.

Construct validity addresses the question of what construct or characteristic the scale is, in fact, measuring. It refers to the extent to which operationalisations of a construct (e.g. practical tests developed from a theory) do actually measure what the theory says they do. To establish the construct validity of a measure, the analyst also must determine (1) the extent to which the measure correlates with other measures designed to measure the same thing and (2) whether the measure behaves as expected. Construct validity evidence involves the empirical and theoretical support for the interpretation of the construct. Such lines of evidence include statistical analyses of the internal structure of the test including the relationships between responses to different test items. They also include relationships between the test and measures of other constructs. There are three approaches to construct validity; convergent validity, divergent validity (or discriminant validity) and nomological validity. The questionnaire was tested for convergent validity. Evidence of the convergent validity of the measure is provided by the extent to which it correlates highly with other methods designed to measure the same construct. It refers to whether all the items for the
observable variable represent one single construct. Convergent validity was established by checking the result of the factor analysis. If all the items represent one factor, it means all the items of a scale are measuring a single construct. Whether factor analysis is appropriate or not is tested through Kaiser Meyer Olkin (KMO) measure of sampling adequacy. The variance and KMO scores of competitive strategy questionnaire are given in Table: 3.6.

### Table: 3.6

**Validity of Scales**

<table>
<thead>
<tr>
<th>Scale</th>
<th>KMO measure of sampling adequacy</th>
<th>No. of Factors</th>
<th>Total Variance Explained (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differentiation</td>
<td>0.603</td>
<td>1</td>
<td>68.45</td>
</tr>
<tr>
<td>Cost Leadership</td>
<td>0.616</td>
<td>1</td>
<td>74.03</td>
</tr>
<tr>
<td>Focus</td>
<td>0.620</td>
<td>1</td>
<td>66.60</td>
</tr>
</tbody>
</table>

If all the items correlate with the total, convergent validity is said to be established. Item-total correlation is measured for this. It shows how well the item is measuring that function which the test itself is measuring. The item-total correlation for the three scales is given below in Table: 3.7.

### Table: 3.7

**Item-Total Correlation of Competitive Strategy Scales**

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>Corrected Item-Total Correlation</th>
<th>ITEM NO.</th>
<th>Corrected Item-Total Correlation</th>
<th>ITEM NO.</th>
<th>Corrected Item-Total Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ONE</td>
<td>0.6121</td>
<td>TWELVE</td>
<td>0.5005</td>
<td>TWENTY TWO</td>
<td>0.4037</td>
</tr>
<tr>
<td>TWO</td>
<td>0.4585</td>
<td>THIRTEEN</td>
<td>0.6935</td>
<td>TWENTY THREE</td>
<td>0.365</td>
</tr>
<tr>
<td>THREE</td>
<td>0.5226</td>
<td>FOURTEEN</td>
<td>0.4971</td>
<td>TWENTY FOUR</td>
<td>0.575</td>
</tr>
<tr>
<td>FOUR</td>
<td>0.6255</td>
<td>FIFTEEN</td>
<td>0.7668</td>
<td>TWENTY FIVE</td>
<td>0.3702</td>
</tr>
<tr>
<td>FIVE</td>
<td>0.4707</td>
<td>SIXTEEN</td>
<td>0.3249</td>
<td>TWELVE</td>
<td>0.5005</td>
</tr>
<tr>
<td>SIX</td>
<td>0.4952</td>
<td>SEVENTEEN</td>
<td>0.4767</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEVEN</td>
<td>0.4465</td>
<td>EIGHTEEN</td>
<td>0.7293</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EIGHT</td>
<td>0.3591</td>
<td>NINTEEN</td>
<td>0.786</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NINE</td>
<td>0.4899</td>
<td>TWENTY</td>
<td>0.6418</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEN</td>
<td>0.7273</td>
<td>TWENTY ONE</td>
<td>0.6937</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELEVEN</td>
<td>0.3116</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In a valid scale, all items should correlate with the total. The items whose values are less than 0.3 should be dropped (Field, 2005). In all the three scales, all data have item-total correlations above 0.3, therefore it can be said that scales are valid.

Table: 3.8
Item-Total Correlation of Customer Satisfaction Scale

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Corrected Item-Total Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ONE</td>
<td>0.4474</td>
</tr>
<tr>
<td>TWO</td>
<td>0.6163</td>
</tr>
<tr>
<td>THREE</td>
<td>0.6773</td>
</tr>
<tr>
<td>FOUR</td>
<td>0.5310</td>
</tr>
<tr>
<td>FIVE</td>
<td>0.6012</td>
</tr>
<tr>
<td>SIX</td>
<td>0.6894</td>
</tr>
<tr>
<td>SEVEN</td>
<td>0.6547</td>
</tr>
<tr>
<td>EIGHT</td>
<td>0.4945</td>
</tr>
<tr>
<td>NINE</td>
<td>0.5726</td>
</tr>
<tr>
<td>TEN</td>
<td>0.5092</td>
</tr>
<tr>
<td>ELEVEN</td>
<td>0.3553</td>
</tr>
<tr>
<td>TWELVE</td>
<td>0.3433</td>
</tr>
<tr>
<td>THIRTEEN</td>
<td>0.4513</td>
</tr>
<tr>
<td>FOURTEEN</td>
<td>0.6775</td>
</tr>
<tr>
<td>FIFTEEN</td>
<td>0.4307</td>
</tr>
<tr>
<td>SIXTEEN</td>
<td>0.4837</td>
</tr>
<tr>
<td>SEVENTEEN</td>
<td>0.5778</td>
</tr>
</tbody>
</table>

For customer satisfaction questionnaire, factor analysis was used to identify the factors affecting customer satisfaction. Therefore, it was not possible that all the items in the scale would fall under one factor. The item-total correlation was calculated for this questionnaire. The Table: 3.9 shows that all the scores are above than 0.3, hence, it was considered as a valid scale.

3.10) TOOLS FOR ANALYSIS OF DATA
The processing of data gives statistics of importance for the study. In this research project, both descriptive tools as well as analytical tools were used.
3.10(1) Descriptive Tools

Descriptive statistics are used to describe the basic features of the data in a study. They provide simple summaries about the sample and the measures. Descriptive statistics aim to quantitatively summarise a data set, rather than being used to support inferential statements about the population that the data are thought to represent. In this research study descriptive statistical tools were used in the form of tables, diagrams etc. to present a profile of the respondents and the firms.

3.10(2) Analytical Tools

Analytical (inferential) statistical tools are used to describe systems of procedures which can be used to draw conclusions from every dataset. In addition to descriptive statistical tools, analytical tools in the form of cluster analysis, factor analysis and multiple regression analysis were used.

3.10(2.1) Cluster Analysis

Cluster analysis consists of classifying variables into clusters that correlate highly with one another and have comparatively low correlations with variables in other clusters. In other words cluster analysis is an exploratory data analysis tool which aims at sorting different objects into groups in a way that the degree of association between two objects is maximal if they belong to the same group and minimal otherwise. The key idea is to identify classifications of the objects that would be useful for the aims of the analysis.

The objective of applying cluster analysis was to determine how many mutually and exhaustive groups or clusters, based on the similarities of strategies among companies, really exist in the population and then to state the composition of such groups. Use of cluster analysis in strategic management research has been critically reviewed by Ketchen and Shook (1996). Due to strategic management’s emphasis on identifying groups of similar organisations, cluster analysis has been a popular methodology. Cluster analysis has been an important tool for examining the relationships among strategy, environment, leadership/organisation, and performance;
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The design of these analyses must be careful to match the analysis to the type of data involved (Campbell-Hunt, 2000). The advantage of cluster analysis is its ability to form homogeneous groups even from random data (Doyle and Saunders, 1985).

Both hierarchical and non hierarchical clustering methods were used in the analysis of the data. Hierarchical procedures involve the construction of a hierarchy or a tree like structure. Agglomerative hierarchical clustering was done in which each object starts out in a separate cluster. In subsequent steps, the two closest clusters (or individuals) are combined into a new aggregate cluster, thus reducing the number of clusters in each step. Non hierarchical clustering first assigns a cluster centre, known as cluster seed, and then groups all objects within a pre specified threshold value from the centre. Then another cluster seed is chosen, and the assignment continues until all objects are assigned. Objects may be reassigned if they are closer to another cluster than the one originally assigned. K-means clustering was used in non hierarchical clustering method. It is called so because the number of clusters required are pre specified.

3.10(2.2) Factor Analysis

Factor analysis also pertains to reducing the data into fewer categories or factors. Factor analysis has the ability to produce descriptive summaries of data matrices, which aid in detecting the presence of meaningful patterns among a set of variables. As the majority of the questionnaire items were formulated on the basis of the qualitative field study performed for this project, rather than on previously tested scales and items, as suggested by Anselmsson (2006), exploratory rather than confirmatory factor analysis was preferred. The objective is to summarise the information contained in a large number of rating scales in a smaller number of summary measures called factors. The difference between cluster analysis and the factor analysis is that the cluster analysis is used to classify “items” in groups where as the factor analysis is used to classify “variables” into groups. Factor analysis has the ability to produce descriptive summaries of data matrices, which aid in detecting the presence of meaningful patterns among a set of variables (Dess and Davis, 1984).
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It reduces the data set to a more manageable size while retaining as much of the original information as possible. There are several methods for factor extraction. Principal component analysis was used in this study. This method is recommended when the primary concern is to determine the minimum number of factors that will account for maximum variance in the data for use in subsequent multivariate analysis. Principal component analysis employing a varimax rotation is a technique that has been used widely in satisfaction and service studies (Greenland et al, 2006). It seeks a linear combination of variables such that the maximum variance is extracted from the variables. It then removes this variance and seeks a second linear combination which explains the maximum proportion of the remaining variance, and so on. This is called the principal axis method and results in orthogonal (uncorrelated) factors. Factor analysis method was used to extract factors affecting customer satisfaction.

3.10(2.3) Multiple Regression Analysis

Multiple regression analysis is a statistical technique that can be used to analyse the relationship between a single (dependent) variable and several independent (predictor) variables. The objective of multiple regression analysis is to use the independent variables, whose values are known, to predict the single dependent value selected by the researcher. The general form of the multiple regression model is as follows:

\[ Y = b_0 + b_1X_1 + b_2X_2 + \ldots + b_nX_n + \varepsilon_i \]

Y is the outcome or dependent variable, \( b_1 \) is the coefficient of the first predictor \( X_1 \), \( b_2 \) is the coefficient of the second predictor \( X_2 \), \( b_n \) is the coefficient of the \( n^{th} \) predictor \( X_n \), and \( \varepsilon_i \) is the difference between the predicted and the observed value of Y for the \( i^{th} \) participant.

The multiple regression analysis was used to predict about the dependent variable based on its covariance with all the independent variables. The factor analysis was
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used to identify factors which may affect the customers’ satisfaction, and then multiple regression analysis was used to see whether these factors actually influence the satisfaction and how much.

3.11 SUMMARY

If the methodology is properly selected, the research task becomes easier. The research methods must be appropriate to the objectives of the study. Proper care was taken in formulating the methodology so that all the research objectives were fulfilled and the research does not deviate from its path. The scope of the study should not be too narrow to leave important variables and at the same time, it should not be too wide to make research unmanageable. All the insurance companies selected in the scope of the study are new except LIC of India and in a short span of time, these companies have made their presence felt. Although, the insurance industry has been budding with new entrants every other day but not all the companies were selected as, in the short run, the new entrants do not pose threat and might not be a hindrance for established companies. There is also a chance that the big players might squeeze the small new entrants.
REFERENCES


8 Ibid.


