The methodology adopted for conducting the study has been presented in this chapter. After laying out Research Problem, Research Objectives are set.

Research Design and Sources of Data have been incorporated. We also formulate the Hypotheses. We have explained how Questionnaire has been designed. We also give details of Measures and scales.

4.1 RESEARCH PROBLEM

Various countries producing automobiles have their own Auto Component Industry meant to cater to their requirements. More importantly, the component industry in every country is in its own settings of geographical nearness, financial systems (credit period etc.), language, culture and many more. Why should any automobile company situated in the far-flung of the world buy its components from India? What are the needs of the Automobile Industry in any country to look outward? Is it only cost? What about Quality, Delivery, Response, Technology, Reliability, consistency and many more parameters.

4.1.1 Problem Statement

The problem statement provides a perspective of the research.

The research problem is to identify Overseas Marketing Strategies of Indian Auto Component Industry and evaluate them on the basis of size of the firms and frequency of usage of the Strategies.

4.2 SCOPE OF STUDY

1. The study covers the Overseas Marketing Strategies adopted by the Indian Auto Component Industry.
2. The study has been conducted during the period July 2004 to July 2008. During this period, Indian GDP was growing at CAGR of 8.6%, Indian Foreign Trade (Export) was growing at CAGR of 25%, and Indian Auto Component Industry export was growing at CAGR of 30.3%. Indian Auto Component Industry’s export growth during the year 2008-09 is only 5.5% due to the slowdown in economy.

3. The study has been made on ACMA - listed companies which are 377 membership companies in the Auto Component export trade. They have been classified as Small, Medium and Large depending on their annual export turn-over. Any Auto Component export company which is not listed with ACMA is out of the scope of study.

4. Out of 151 companies from whom valid survey responses have been received, 137 of them (91%) have export experience of more than 5 years. Balance 14 companies have export experience of 2 to 4 years.

4.3 RESEARCH OBJECTIVES

The current study has been undertaken to examine the Research Problem with the following objectives.

1. To understand the nature of global auto component and automobile industry.

2. To find out the various requirements of the Overseas Automotive Industry.

3. To study the overseas marketing strategies of Indian Auto Component Industry.

4. To find out and examine the competitive environment factors, facilitators of export and manufacturing practices of Indian Auto Component Industry which help formulate overseas marketing strategies.
5. To examine the variation in usage of overseas marketing strategies of Indian Auto Component Industry in terms of size of the companies. Also to examine significant-level usage of overseas marketing strategies.

6. To make recommendations to the Indian Auto Component Industry on improving their Overseas Marketing Strategies.

4.4 RESEARCH DESIGN

There are two major types of Research Designs: exploratory and conclusive. Figure 4.1 depicts a classification of Research Design.

The primary objective of exploratory research is to provide insights into, and an understanding of, the problem confronting the researcher. Conclusive research is typically more formal and structured than exploratory research. It is based on large, representative samples, and the data obtained are subjected to quantitative analysis (Malhotra, 2006).

We have chosen conclusive research design for our research.

Under conclusive research, the objective of descriptive research is to describe market characteristics or functions whereas that of causal research is to determine cause and effect relationships. We have chosen descriptive search.

Under descriptive research, cross-sectional design is used when information is collected from any given sample of population elements only once and longitudinal design is used when a fixed sample (or samples) of population elements is measured repeatedly on the same variables. We have chosen cross-sectional design.

Under cross-sectional design, single cross-sectional design is used when only one sample of respondents is drawn from the target population, and information is obtained from this sample only once. In multiple cross-sectional design, there are two or more samples of respondents, and information from each sample is
obtained only once; often, information from different samples is obtained at different times over long intervals. We have chosen single cross-sectional design.

The thicker line in Figure 4.1 shows our selection of 'Conclusive - descriptive - single cross-sectional - research design'.

**Figure 4.1 Classification of Research Design**

![Figure 4.1 Classification of Research Design](image)

*Source: Malhotra (2006).*

### 4.5 SOURCES OF DATA

Primary data was collected from Indian Auto Component Manufacturers. Questionnaire was sent to senior executives of all the 377 exporting companies listed with ACMA by courier and post. Telephone and email was used for follow-up. Many of the companies were visited personally and senior functionaries were met to get the survey response. This was necessitated as the initial response was poor; senior functionaries of the companies were under the opinion that a research
topic like this seeking responses for strategies used is very sensitive from the company perspective.

After repeated follow-up by telephone, e-mail and personal visits only, the response could be got which took many months.

Secondary data can help us in the following ways (Malhotra, 2006):

1. Identify the problem.
2. Better define the problem
3. Develop an approach to the problem
4. Formulate an appropriate research design (for example, by identifying the key variables).
5. Answer certain research questions and test some hypotheses.
6. Interpret primary data more insightfully.

Since the research topic is of marketing strategies being followed by Indian companies which are secretly applied by many of the companies, collection of published data through pamphlets, share-holder handouts, newspaper interviews, seminars, company websites and personal interviews of Senior Executives of companies was resorted to.

After studying the data collected over a period, it was found that the data helps in all six ways as given above.

4.6 HYPOTHESIS FORMULATION

In order to guide the study in the desired direction, a set of research hypotheses have been delineated.

Literature Review, Secondary Data and extensive discussion with the industry executives and academicians helped frame the hypotheses.

While reviewing the literature, it was found that Zou and Stan (1998) had studied very extensively about the impact of size of the firm on the export performance by
considering sales turn-over for judging the size of the firm. This was yielding positive effects rather than judging the size of the firm by number of employees. This is how, in our study also, size of the firm has been decided.

Through literature review it was also found export performance and various strategic approaches are differently followed by Small, Medium and Large firms. Now we set the first hypothesis as below.

\( H_0: \) There is no difference between Overseas Marketing Strategies of Small, Medium and Large Indian Auto Component Companies.

\( H_1: \) There is difference between Overseas Marketing Strategies of Small, Medium and Large Indian Auto Component Companies.

Quite a few authors have studied impact of Marketing Mix in the form of 4Ps on overseas marketing strategies. By literature review, it was found that many of the Overseas Marketing Strategies of Indian Auto Component Industry are falling under one of the 4Ps. Hence it was decided to test hypothesis based upon 4Ps as follows:

**Product:**

\( H_0: \) There is no difference between Product Overseas Marketing Strategy of Small, Medium and Large Indian Auto Component Companies.

\( H_2: \) There is difference between Product Overseas Marketing Strategy of Small, Medium and Large Indian Auto Component Companies.

**Price:**

\( H_0: \) There is no difference between Price Overseas Marketing Strategy of Small, Medium and Large Indian Auto Component Companies.

\( H_3: \) There is difference between Price Overseas Marketing Strategy of Small, Medium and Large Indian Auto Component Companies.
Promotion:

\( H_0: \) There is no difference between Promotion Overseas Marketing Strategy of Small, Medium and Large Indian Auto Component Companies.

\( H_4: \) There is difference between Promotion Overseas Marketing Strategy of Small, Medium and Large Indian Auto Component Companies.

Place (Distribution):

\( H_0: \) There is no difference between Distribution (Place) Overseas Marketing Strategy of Small, Medium and Large Indian Auto Component Companies.

\( H_5: \) There is difference between Distribution (Place) Overseas Marketing Strategy of Small, Medium and Large Indian Auto Component Companies.

Many authors, in their study of Marketing Strategies, Overseas Marketing Strategies, Market Orientation, Marketing Technology Products, Antecedents and Consequences of Marketing Strategy making, Contingency theory and RBV have followed Constructs which they have used for proving their study.

Our literature review encompassed all these strategic approaches. In order to study the various Overseas Marketing Strategies of Indian Auto Component Industry as used by Small, Medium and Large sized firms, it was decided to formulate few more Constructs based upon the literature review.

Moen (2002) in his study of born-global exporting firms, found that the main difference between global and local exporters was the higher scores on the technology advantage in the former than in the latter group.

Also, Rennie (1993), indicated that the highly involved exporters often offered leading edge technology.
We set the following hypothesis based upon Technology Advantage (Product Quality and Performance, Uniqueness and Technology).

**H₀:** There is no difference between ‘Technical Advantage’ Overseas Marketing Strategy of Small, Medium and Large Indian Auto Component Companies.

**H₁:** There is difference between ‘Technical Advantage’ Overseas Marketing Strategy of Small, Medium and Large Indian Auto Component Companies.

In order to find out Marketing Strategic approach towards International Customer Orientation, another Construct was formulated for hypothesis testing as follows:

**H₀:** There is no difference between ‘International Customer Orientation’ based Overseas Marketing Strategy of Small, Medium and Large Indian Auto Component Companies.

**H₁:** There is difference between ‘International Customer Orientation’ based Overseas Marketing Strategy of Small, Medium and Large Indian Auto Component Companies.

In an Original Equipment (OE) environment in which Auto Component Industry is placed, pricing strategy is very important and the application has larger business implications. In order to find out marketing strategic approach towards low price, a Construct was identified for hypothesis testing as follows:

**H₀:** There is no difference between ‘Low Price’ Overseas Marketing Strategy of Small, Medium and Large Indian Auto Component Companies.

**H₁:** There is difference between ‘Low Price’ Overseas Marketing Strategy of Small, Medium and Large Indian Auto Component Companies.

By the literature review and also after interviewing few industry executives of large size Indian Auto Component companies, it was found that many companies
have certain High-end marketing strategies as a differentiated business approach. It was decided to make a Construct based upon High-end marketing strategies and do the hypothesis testing as follows:

**H₀**: There is no difference between ‘High-end’ Overseas Marketing Strategies of Small, Medium and Large Indian Auto Component Companies.

**H₁**: There is no difference between ‘High-end’ Overseas Marketing Strategies of Small, Medium and Large Indian Auto Component Companies.

Again in OE environment, quality expectations of customers are very high. The customers do not want to check and validate any of the quality parameters set between them and sellers while initially placing the order; the sellers are required to ensure quality in their manufacturing without any defect being passed on to the customers.

In order to check the quality approach of Indian Auto Component Industry, another hypothesis was set as follows:

**H₀**: There is no difference between ‘Quality’ Overseas Marketing Strategies of Small, Medium and Large Indian Auto Component Companies.

**H₁₀**: There is difference between ‘Quality’ Overseas Marketing Strategies of Small, Medium and Large Indian Auto Component Companies.

While studying the profile of Automotive and Auto Component Industry, it was found that Auto Component Industry is one of the most competitive industry getting exposed to many issues and problems. This was studied very comprehensively and nine parameters were found. These parameters have profound impact on formulation of overseas marketing strategies of Indian Auto Component Industry. The following hypothesis has been set for testing.

**Competitive Environment:**
\( H_0: \) There is no difference between Small, Medium and Large companies in their approach to ‘Competitive Environment’.

\( H_{11}: \) There is difference between Small, Medium and Large companies in their approach to ‘Competitive Environment’.

Indian Auto Component Industry requires certain facilitators of export to carry on their business properly. By the literature study and interviews with Industry executives, it was found that there are nine facilitators of export. The following hypothesis has been set for this.

**Facilitators of Export:**

\( H_0: \) There is no difference between Small, Medium and Large companies in their approach to ‘Facilitators of Export’.

\( H_{12}: \) There is difference between Small, Medium and Large companies in their approach to ‘Facilitators of Export’.

In order to ensure utmost online quality of Auto Components, customers and suppliers set certain Manufacturing and Shop-Floor Practices prior to award of Purchase Contract. By literature review and interviews with industry executives, it was found that there are six such manufacturing and shop floor practices. The following hypothesis has been set for this.

**Manufacturing and Shop-Floor Practices:**

\( H_0: \) There is no difference between Small, Medium and Large companies in their approach to ‘Manufacturing and Shop-Floor Practices’.

\( H_{13}: \) There is difference between Small, Medium and Large companies in their approach to ‘Manufacturing and Shop-Floor Practices’.

All the above hypotheses test for the variability of the Overseas Marketing Strategies in the form of various Constructs, Export Marketing environment
parameters, Facilitators of Export and Manufacturing and Shop-Floor Practices through tests of null and alternate hypotheses.

It is also decided to check the significant-usage-level of various Constructs by Small, Medium and Large firms. Since resources available to a small size firm is limited, it was decided to do hypothesis testing based upon small size companies. Accordingly, the following hypothesis is set.

\[ H_{14}: \text{Small size companies will be significantly less likely to use Overseas Marketing Strategies than medium and large size companies.} \]

4.7 QUESTIONNAIRE DESIGN

While during the literature survey, it was found that in a study of American Organizations, Allen and Helms (2001) had developed and tested an appropriate scale based on research work of Porter, and Parker and Helms. In this study, 25 questions regarding various strategic practices were used to operationalize Porter’s Generic Strategies for an American sample.


Our survey instrument is based upon on these two studies, Literature Survey and interactions at various times with industry leaders, scholars and academicians.

In the study, a structured non-disguised questionnaire has been used. The list of questions is in a prearranged order and the object of enquiry was revealed to the respondents.

4.8 PILOT STUDY

After formulating the Questionnaire, it was pretested by personal interview with 20 respondents, drawn from industry as well as academics, in order to observe respondent’s reactions and attitudes. Their suggestions and changes were considered for making the final draft of Questionnaire and another pre-testing was
carried out with the same respondents; this time the Questionnaire was mailed/couriered to the respondents.

The responses obtained from second pre-testing were coded and analyzed. The analysis proved the adequacy of the problem definition and also of the data and analysis required to obtain the necessary information.

4.9 MEASURES AND SCALES

1) Section A has 46 questions of specific Strategies. There is also one more question (question number 47) where the respondent is asked to inform about any other strategies being followed by his company other than specifically mentioned. The Survey Instrument of Section A has been designed as a Semantic Differential Scale. It is a 7 point rating scale with endpoints associated with bipolar labels that have semantic meaning. The respondents were asked to rate the strategies bounded at each end by one of two bipolar adjectives, “Never” and “Always”.

2) Section B consists of a statements formulated in the form of Likert Scale. Likert Scale is a widely used Rating Scale that requires the respondents to indicate a degree of agreement or disagreement with each of a series of statements about the stimulus objects.

For Section B statements, the respondent is asked to respond in terms of five degrees of agreement or disagreement from “Strongly Disagree” to “Strongly Agree” with a “Neutral” degree in between.

While doing the analysis, response indicating the least favorable degree is given the least score (1) and the most favourable is given the highest score (5) (Kothari 1990).

3) Section C is divided into three sub-sections.

Sub-section 1: This consists of nine questions designated as C1 to C9 in the form of a Likert Scale. Here the respondent is asked to respond in terms of
five degrees of agreement or disagreement from “Not Important” to “Absolutely Critical” with an “Important” degree in between.

Sub-section 2: This consists of seven questions designated as C101 to C107. Here again the scale is of Likert with five degrees of agreement or disagreement from “Not Important” to “Absolutely Critical” with an “Important” degree in between. There is also C108 wherein the respondent can mention any other practice of his company and rate it.

Sub-section 3: This consists of one question designated as C11 wherein the respondent is given his own choice of formulating the question and rate it.

4) Section D consists of six questions about the profile of the company; the respondent is requested to give information about their organization, annual turnover, number of years company has been engaged in export activity, number of employees and major countries to which the company exports.

4.10 TESTS OF MEASUREMENT

Measurement of survey instrument must meet the tests of validity, reliability and practicality (Kothari 1990).

Tests of validity:

This indicates the degree to which an instrument measures what it is suppose to measure. We tested the survey instrument for validity in terms of content and criterion.

Content validity is the extent to which a measuring instrument provides adequate coverage of the topic under study. Its determination is primarily judgemental and intuitive. Our survey instrument was evaluated by a panel of industry executives and academicians who confirmed the content validity.

Criterion-related validity relates to our ability to predict some outcome or estimate the existence of some current condition. The concerned criterion must
possess relevance, freedom from bias, reliability and availability. This also was confirmed by the panel of judges.

**Test of reliability:**

We tested the scale for ‘internal consistency reliability’. This is used to assess the reliability of a summated scale where several items are summed to form a total score (Malhotra, 2006).

The simplest measure of internal consistency is split-half reliability. The items on the scale are divided into two halves and the resulting half scores are correlated. High correlations between the halves indicate high internal consistency.

The coefficient-alpha, or Cronbach’s alpha, is the average of all possible split-half coefficients resulting from different ways of splitting the scale items. This coefficient varies from 0 to 1.

Cronbach's alpha determines how well a set of items (or variables) measures a single unidimensional latent construct. When data have a multidimensional structure, Cronbach's alpha will usually be low. Additionally, if the average inter-item correlation is low, alpha will be low. As the average inter-item correlation increases, Cronbach's alpha increases as well.

This makes sense intuitively - if the inter-item correlations are high, then there is evidence that the items are measuring the same underlying construct.

The cut off value for proving internal consistency reliability suggested by Nunally (1967) is 0.60.

The reliability of the questionnaire was checked at two stages one at pilot level and other with the help of actual data collected.

At pilot level, data collected from the panel of industry executives and academicians was tested and the Cronbach alpha values were 0.69 for Overseas Marketing Strategies, 0.72 for Competitive Environment parameters, 0.66 for
Facilitators of Export and 0.67 for Manufacturing and Shop floor Practices. Thus reliability of the questionnaire was established at the pilot level.

Cronbach alpha test was carried out on the actual data collected from 151 companies and alpha value was 0.88.

Cronbach alpha test was applied for the 4 Factors of Product Differentiation, Focus Product Differentiation, Focus Cost Leadership and Cost Leadership (Table 4.1). The alpha values are 0.88, 0.85, 0.76 and 0.75 respectively.

Cronbach alpha test results for 4P construct is presented in Table 4.1.

<table>
<thead>
<tr>
<th>4Ps</th>
<th>Number of Strategies</th>
<th>Alpha Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>12</td>
<td>0.87</td>
</tr>
<tr>
<td>Price</td>
<td>6</td>
<td>0.88</td>
</tr>
<tr>
<td>Promotion</td>
<td>7</td>
<td>0.73</td>
</tr>
<tr>
<td>Place</td>
<td>7</td>
<td>0.73</td>
</tr>
</tbody>
</table>

Table 4.1

Table 4.2 indicates Cronbach alpha test results of constructs – Technical Advantage, International Customer Orientation, Low Price, High-end Marketing and Quality.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Number of Strategies</th>
<th>Alpha Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Advantage</td>
<td>8</td>
<td>0.80</td>
</tr>
<tr>
<td>International Customer Orientation</td>
<td>5</td>
<td>0.65</td>
</tr>
<tr>
<td>Low Price</td>
<td>4</td>
<td>0.83</td>
</tr>
<tr>
<td>High-end Marketing</td>
<td>4</td>
<td>0.68</td>
</tr>
<tr>
<td>Quality</td>
<td>4</td>
<td>0.68</td>
</tr>
</tbody>
</table>
Test of Practicality:

The practicality characteristic of a measuring instrument can be judged in terms of economy, convenience and interpretability (Kothari 1990). This was evaluated and confirmed by the panel of industry executives and academicians.

Thus all the three tests of measurement have been confirmed that they are meeting the soundness requirement both at pilot level and actual survey level.

4.11 PRIMARY DATA COLLECTION

ACMA (The Automotive Manufacturers Association of India) represents organized sector of Indian Auto Component Industry adequately by membership of more than 500 companies and turn-over of more than 85% of entire Indian Auto Component Industry.

It's active involvement in trade promotion, technology up-gradation, quality enhancement and collection and dissemination of information has made it a vital catalyst for this industry's development. It's other activities include participation in international trade fairs, sending trade delegations overseas and bringing out publications on various subjects related to the automotive industry.

ACMA is represented on a number of panels, committees and councils of the Government of India through which it helps in the formulation of policies pertaining to the Indian automotive industry.

4.11.1 Sample Frame and Sample size

As per the Year 2008 -data base of ACMA, there are 377 membership companies who are doing exports. They are located in many parts of India. They were classified as per the data below into Small, Medium and Large exporters.

1. Number of Companies with annual export turnover of up to and inclusive of Rs 4 crore: 170
2. Number of Companies with annual turnover from Rs 4 crore to and inclusive of Rs 20 crore: 115

3. Number of companies with annual turnover of above Rs 20 crores: 92

Since the research title involves overseas marketing strategies which are typically handled by top functionaries of Indian Auto Component companies the response may get delayed. Considering this, it was decided to go for census method in place of sampling. Questionnaire was sent to all the 377 companies.

Questionnaire was mailed by Courier to CEOs, Senior Executives or Export Marketing In-charges of the selected companies. Follow up was done through email to start with. Questionnaire was sent by email again to some of the companies. Again follow up was done through phone.

With persistent follow up, response was received from 157 companies with a success rate of 41.6%, which is rated as high level of response.

4.12 LIMITATIONS OF THE STUDY

1. The entire study was conducted when both Automotive and Auto Component markets were at the peak of their performance, much before the global recession started during second half of the year 2008-09. The period of study is July 2004 to July 2008. Effect of Global slowdown which has started from October 2008 has not been reflected in our findings.

2. The study has been made on ACMA - listed 377 exporting companies of Indian Auto Component Industry. The survey response has been received from 151 companies out of 377 companies which represents 40% of the ACMA membership. The study is not applicable to exporting companies not registered with ACMA.
3. Auto Component firms have been classified by size into Small, Medium and Large based on annual export turn-over. If size is on any other basis, findings may be different.

4. Indian Auto Component Industry has totally 558 players in the organized sector (export as well as domestic supply companies); it has more than 5,000 companies in the un-organized sector. Though exact number of exporting companies in the un-organized sector is not known, it will be a sizable number. The current study has been carried out for the organized sector only. It will not be applicable to un-organized sector.

5. Findings are in Indian settings. They may not be same for Auto Component Industry of other countries.
REFERENCES


