CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 OVERVIEW

In this chapter the detailed research design and methodology has been discussed which is used for conducting the study. The research design and methods for each of the objectives have been discussed in detail along with tools and techniques that have been employed in order to conduct the study.

3.2 INTRODUCTION

Research design describes the connection between empirical data to the study’s initial research questions logically and finally to the conclusions of the research study (Yin, 2003). In other words research design is also said to be the framework that provides the blueprint of the study. The research design specifically addresses various scientific paradigms, scientific approaches, research approaches, research methods, research strategy, and data collection methods and data analysis strategy. The research design is basically classified into exploratory research and conclusive research. Conclusive research is further segregated into descriptive and causal research. Exploratory research is related to qualitative studies whereas conclusive research bonds its association with quantitative study. In this thesis both the research designs have been used in different roles.

The qualitative method was used while carrying out literature survey, formation of research objectives, validation and achievement of first objective of the study. An explanation of the overall approach and rationale for the selection of qualitative method has been given. A discussion on the case study design including the number of cases, their selection, structure and sampling has been done. An explanation of the data collection method used in the study for qualitative work has been given. The description about data analysis strategy has been given.
where the researcher has used grounded theory, (Charmaz , 2006), within case analysis (Tsang, 1997) , & Multi-case analysis (Tsang, 1997) has been given the construct validity, internal validity, external validity and reliability (Yin, 2003)has been discussed with respect to qualitative research method. Discussion on the use of Interview protocol, conceptual lens has been presented.

The quantitative method have been used to address the second objective where the research questions were followed by identification of sampling procedure ( Sampling frame , sample size), designing of the questionnaire, formation of scale, validity and reliability test of the instrument , pilot testing, data collection and its analysis have been done.

3.3 BACKGROUND

Indian automotive lubricant industry has unfolded numerous opportunities for marketers to grow their businesses as well as their market share. These opportunities require the marketers to relook at their integrated marketing communication strategies and also explore how well they have adapted to the new mechanism available to communicate with the target audience in the existing strategies. In Indian context the Automotive Lubricant Marketers have been relying on traditional mediums for promotional aspects, creating awareness, building brands and approaching new markets. They now need to study the modern mechanism used by people in their daily lives to communicate with each other. The Automotive Lubricant companies in India continue to witness a static growth which has proved to be a hurdle to increase their market share because of their reliability on traditional mediums. The Automotive Lubricant companies in India have nowhere tried to imbibe the new ways of communication like Social Media in order to be more proactively reachable and achieve their marketing goals. It is apparent from the literature review that the automotive lubricant companies have so far not been able to explore the advantages and benefits that can accrue to them by the use of Social Media. The researcher could not find any relevant literature that establishes the Integrated Marketing Communication Channel
selection mechanism executed by Automotive Lubricant Companies in India. Therefore an attempt has been made to arrive at the channel selection mechanism of Integrated Marketing Communications currently employed by Automotive Lubricant companies in India. Though various studies have identified the factors contributing to Integrated Marketing Communication channel selection but the researcher could not find any comprehensive study about the factors to be considered while including Social Media into integrated marketing communication channels of Automotive Lubricant Companies in India. This research attempts address this gap by identification of such factors that could possibly contribute to adoption of Social Media by Automotive Lubricant Companies in India.

3.4 PROBLEM STATEMENT

Although in the existing literature the applicability of integrated marketing communication channel mechanism is well known for various industries but no study could be found which establishes the integrated marketing communication channel selection mechanism executed by Automotive Lubricant companies in India. Though various studies have identified the factors of Integrated Marketing Communication Channel selection but the researcher could not find any comprehensive study about the factors to be considered while including social media into integrated marketing communication channels. The research problem that the study will address is “How to Integrate Social Media into Integrated Marketing Communication Strategy of Automotive Lubricant Companies in India.”

3.5 RESEARCH QUESTION

How do Automotive Lubricant Companies in India select Marketing Communication Channels?

This question is exploratory in nature and its scope is to find out the existing process of devising an integrated marketing communication channel strategy currently in practice by Indian
Automotive Lubricant companies. The question broadens its scope to understand the selection of the available mediums currently employed by Automotive Lubricant Companies.

What are the factors which influence the selection of Social Media as a Marketing Communication channel by Automotive Lubricant Companies in India?

This question is exploratory in nature. It seeks to find out the various factors that are employed in selection of the various mediums of the marketing communication and details out to find the specific factors that influence the selection of the Social Media in particular.

3.5.1 NATURE OF RESEARCH QUESTION

The central research problem is exploratory in nature as it seeks to understand the process of selection. (Yin, 2003)In support of this, both the questions are exploratory in nature as expressed in Table 3.1. The research question seeks to understand the process of integrated marketing communication channel selection currently adopted by Automotive Lubricant Companies in India and thereafter arriving on the factors that influence the selection of these mediums and adoption of Social Media. The study is aimed to highlight the selection of mediums through the process of Integrated Marketing communications.
### TABLE 3.1: RESEARCH QUESTIONS: TYPES AND TEMPORAL ORIENTATION

<table>
<thead>
<tr>
<th>Type of Research Question</th>
<th>Temporal Orientation of Research Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Backward Looking</td>
</tr>
<tr>
<td><strong>Exploratory</strong></td>
<td>Exploratory Backward Looking</td>
</tr>
<tr>
<td>Less Factual, more oriented towards understanding a trend/pattern</td>
<td>What could have been done?</td>
</tr>
<tr>
<td></td>
<td>What would have made more effective?</td>
</tr>
<tr>
<td></td>
<td>Yin (2003) Exploratory, What questions</td>
</tr>
<tr>
<td></td>
<td>Exploratory Backward Looking</td>
</tr>
<tr>
<td><strong>Descriptive and Predictive</strong></td>
<td>Descriptive Backward Looking</td>
</tr>
<tr>
<td>Factual representation or estimation of study object</td>
<td>What were the outcomes of this process?</td>
</tr>
<tr>
<td></td>
<td>How many times has this process worked?</td>
</tr>
<tr>
<td></td>
<td>Yin (2003) Who, what, where, questions</td>
</tr>
<tr>
<td><strong>Explanatory</strong></td>
<td>Explanatory Backward Looking</td>
</tr>
<tr>
<td>Factual, focused on understanding a limited number of events</td>
<td>What happened?</td>
</tr>
<tr>
<td></td>
<td>Why did it happen?</td>
</tr>
<tr>
<td></td>
<td>What is the current status?</td>
</tr>
</tbody>
</table>

Source: Yin, 2003

### 3.6 RESEARCH OBJECTIVES

The specific objectives of the research work here are:

1. To study the Integrated Marketing communication channel selection mechanism adopted by Automotive Lubricant Companies in India.
2. To identify the significance factors to be considered while selecting social media as marketing communication channel by automotive lubricant companies in India.
3.7 OVERALL APPROACH

In the research process the researcher has defined the problem which is currently in action. The researcher tries to explore and understands the nature of the problem completely through a systematic study. Research questions and research designs are developed to understand the problem logically. The existing theory related to the problem has been explored. Based on that, a conceptual lens is developed to study the problem. The empirical research design and data analysis approach are developed on the basis of conceptual lens framework. The researcher starts data collection for the understanding of process as per defined design methodology. The data collected for process is analyzed based on conceptual lens and the outcomes of data analysis form the initial findings of the study. Thereafter with the help of the questionnaire the variables have been used together to arrive at the factors. The specific factors form the findings of the study. The overall research design for objective 1 and 2 have been shown separately.

3.8 RESEARCH DESIGN AND METHODOLOGY FOR OBJECTIVE 1

The First objective aims to find out the integrated marketing communication channel selection mechanism adopted by Automotive Lubricant Companies in India. The research approach (Figure 3.1) will help us to understand the process of selection.
Limited Literature is available in the area of process selection mechanism and there is also a lack of study that shows specific selection mechanism adopted by Automotive Lubricant Companies in India. The Integrated Marketing communication channel selection processes, related strategies and theories cover the major elements related to channel selection. However these frameworks and theories do not give an insight about channel selection process adopted by Automotive Lubricant Companies in India.

In view of the above background and research questions, the researcher decided to undertakes a study on the Integrated Marketing Communication Channel selection mechanism currently employed by Automotive Lubricant Companies in the Indian context. Qualitative Research Method and Case Study Method have been used to address the subjective. The reasons for the adoption of these methods are explained in the subsequent sections.
3.8.1 PHILOSOPHICAL ASSUMPTIONS

The research study depends upon the appropriateness of research methods employed, validity of the research and existing assumptions about the nature of reality (Myers, 2013). These philosophical assumptions consist of a position towards the nature of the reality and how it should be constructed (Ontology), How the Researcher knows about the Reality and what is the basis of his or her knowledge (Epistemology), What are the values put into the research (Axiology), how the researcher writes about it (Rhetoric), and the methods used in the research process (Methodology). The explanation of all these have been given by (Creswell, 2007). In the table (Table 3.2) below, a summary of the assumptions and their implications related to the objective have been given.
### TABLE 3.2: PHILOSOPHICAL ASSUMPTIONS ALONG WITH IMPLICATIONS FOR THIS RESEARCH STUDY

<table>
<thead>
<tr>
<th>Assumptions</th>
<th>Question</th>
<th>Characteristics</th>
<th>Implications in this research study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontological</td>
<td>What is the nature of reality and how it should be constructed?</td>
<td>As described by participants in the research study, reality is subjective and multiple in nature. The nature of the world and what we can know about it.</td>
<td>Quotations and concepts are described in words of participants and evidences have been provided to explain different perspectives.</td>
</tr>
<tr>
<td>Epistemological</td>
<td>What is the nature of knowledge and the relationship between the knower and the would-be known?</td>
<td>Researcher attempts to understand thoroughly and be in continuous touch with subjects being studied in this research work.</td>
<td>Researcher spent time at various Marketing departments of Automotive Lubricant Companies and observed the decision making at channel selection level.</td>
</tr>
<tr>
<td>Axiological</td>
<td>What values go into research?</td>
<td>Researcher acknowledges the value addition in this research study</td>
<td>Inferences and interpretations of researcher are validated with the interpretations of interview participants.</td>
</tr>
<tr>
<td>Rhetorical</td>
<td>How the researchers write about his/her research study?</td>
<td>The writing style adopted in this research study is of literary and informal style using the personal voice. It also uses qualitative terms and limited definitions</td>
<td>First person pronoun is used in the research; provided rich description of the problem.</td>
</tr>
<tr>
<td>Methodological</td>
<td>What is the process of research? (or ) How can the knower go about obtaining the desired knowledge and understanding?</td>
<td>To study the topic within its context inductive logic with good design is used.</td>
<td>Research had described the context of mechanism of integrated marketing communication channel selection adopted by automotive lubricant companies in India.</td>
</tr>
</tbody>
</table>

*Source: (Creswell, 2007)*

These assumptions gave a reflection of a particular view that researcher make while selection of Qualitative Research Methods. Here the researcher aims at following a particular paradigm. A
paradigm is “A broad view or prospective of something” (Taylor, Kermode, & Roberts, 2007). Research could be affected and guided by a certain paradigm and it can be defined as “Patterns of belief and practices that regulate enquiry within a discipline by providing lenses, frames and processes through which investigation is accomplished”. Therefore in order to seek clarity of the researcher’s developed structure of investigation and the choice of methodology, there is a need to discuss the paradigm adopted in particular for this research before going ahead with specific methods. This study has employed interpretive paradigm & the explanation has been provided in the subsequent sections.

3.8.2 SCIENTIFIC PARADIGMS

There are five underline Paradigms which are available for qualitative research. These are positivism, post-positivism, critical theory, constructivism, & participatory (Guba & Lincoln, 2005).

Positive Paradigm unfolds many options to conduct research based on natural science. The Positivists are of the belief that reality can be backed up by a description which is objective in nature with measurable properties. These properties have their own independence from researcher and the instruments employed (Myers, 2013). In this paradigm, the testing of the theory is based on hypothesis so that the researcher can do improvements in the predictive understanding of the problem. An evidence of formal propositions, testing of hypothesis, quantifiable measures of variables and the influence about a problem which can be drawn from the sample to a stated population is when a research can be categorized into positivist approach. In this study the objective is to explore the process of selection of Integrated Marketing communication channel selection process by Automotive Lubricant Companies in the Indian Context therefore it is not possible to develop the hypothesis for testing an also the measurable variables. Therefore positivist paradigm is not suitable for this study.
The constitution of social reality is in history and people are responsible for its production as well as reproduction. It is likelihood that people change their circumstances socially as well as economically with complete consciousness. This particular paradigm with such an underline assumption is called as critical research paradigm. The critical researchers are of the belief that there is an apprehension between control and resistance by various forms of social, cultural and political domination (Myers, 2013). The critical researchers have to do social critique by bringing restrictive conditions to reality. Their objective is to eliminate the causes of restrictions and dominating issues of society therefore their focus is on the contradictory issues and conflicts existing in current society. This research study is not looking for any such conditions in the society. The research would emphasize on the social contractedness of reality hence an interpretive approach has been selected here. Hermeneutics and phenomenology is the philosophical base of interpretive approach (Myers, 2013). The interpretive research works on the basic assumption that social reality can be interpreted only with language, conscious state and meanings which are common and shared in the society. Interpretive paradigm works on the principal that there are many realities and the focus lies on holistic perspective of both people and environment. The basic understanding of the problem gets developed with the perception of meaning that people have and interpretive methods are employed to understand the context of the problem and other influences caused by these. The study has adopted a social constructivist vision of reality which says that the observer construct the reality in social terms. The comparison has been shown in the table below (Table 3.3).
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Positivist View</th>
<th>Interpretive View</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>The researcher will predict and explain changes in phenomena of study</td>
<td>The researcher will interview the key decision makers and recognize the value of depth of the individual content</td>
</tr>
<tr>
<td>Beliefs</td>
<td>• One truth exists</td>
<td>• Many truths and realities</td>
</tr>
<tr>
<td></td>
<td>• Must be objective</td>
<td>• Different people have different perceptions, needs and experiences</td>
</tr>
<tr>
<td>Research Methods</td>
<td>Quantitative</td>
<td>Qualitative</td>
</tr>
<tr>
<td>What study is based upon</td>
<td>Measurable outcomes from questionnaire data</td>
<td>Descriptive, explanatory and contextual words of interview data</td>
</tr>
<tr>
<td>Study Sample</td>
<td>Clear and precise inclusion and exclusion of data</td>
<td>Representatives who are able to provide expertise from different point of view</td>
</tr>
</tbody>
</table>

**Source:** (Creswell, 2007)

The characteristics that a hermeneutics researcher bears include their individual interpretation of the process in order to understand the problem and also to look at the research problem from a holistic view. Researchers of this view are permitted to be devoted and more subjective in order to understand and be more interpretive with the conditions, the researchers in the Hermeneutic perspective are allowed to have some pre understanding since it gives direction to the research.
With the help of studying the human nature, action and language, the researcher can carry out interpretation and understanding of situation in a well-structured manner. (Bell, E; Bryman, A;, 2007) In this study the researchers has used an adapted version of grounded theory (Charmaz , 2006)which is also referred as constructivist grounded theory. The two processes involved here are ascertaining and emerging which are executed by a thorough interpretative process which result in concepts & development of theory. The outcomes of the research will produce interpretation out of multiple interpretations which are shared and hold reality as perceived by individual (Charmaz , 2006).

3.8.3 SCIENTIFIC APPROACH

In order to relate the existing theories with empirical data, there are three types of Research approaches that are followed. The research approach referred here are deductive, inductive & abductive approach.

The deductive approach begins with the theories already existing in a specific research area. The testing of these theories is done by employing hypothesis and formulating research question for the study. These hypothesis and research questions form the basis for empirical data collection so that the researcher can arrive at a comparison between empirical data and existing theories. An analytical process is used to arrive at a conclusion (Bell, E; Bryman, A;, 2007).

The inductive approach lies on the foundation of empirical facts. The first for this approach is to collect empirical data on the basis of which the researcher further develops a concept which is used to give structure to the theories. The difference between the previous approach and Inductive is that former tests the existing theory and later helps in generation of new theory.

In this study the researcher has used the Inductive Approach. The empirical data are collected from top level marketing managers of the automotive lubricant companies in India through semi structured interview with respect to their existing practices while forming integrated Marketing
communication strategy that involves marketing communication, channel section for marketing automotive Lubricants. The concepts have undergone development with the help of systematic analysis of data by using qualitative software. These concepts have been used to develop the process that automotive lubricant companies follow while choosing final media for communication.

The Abductive Approach is the iterative process when seen among framing of theory, empirical data and case analysis. The outcomes are generated on the basis of a theory that matches with other or the extension of a theory which is already existing (Spens & Kovacs, 2006). Therefore an extension is possible in this approach. The steps that are involved include: theory development by using inductive approach, theory explanation, testing of new theory with the help of case study. All these steps demand a vast experience which calls for a schematically method. This approach is not used here since the researcher has no objective to create a new theory. Figure 3.2 shows the three different research processes.
3.8.4 RESEARCH METHOD FOR OBJECTIVE 1

Social science research involves many ways of research method. The major of them are Quantitative Research method and Qualitative Research method. Quantitative Method involve testing of theory where researcher undergoes identification of a relationship between variables and arrives at questions and hypothesis which are further administered with the help of instruments like surveys and experiments for understanding of natural phenomena and research. Qualitative Research Method has been developed to have a basic understanding about social and cultural phenomenon in social sciences. The method includes case study research, action research and ethnography.
Qualitative researchers have to understand the context of the research problem and the participants involved. By doing this exercise the researchers are able to collect information personally and the interpretation is made on their findings and the experience of the researchers which further gets concluded by proper organization. The nature of the research questions is exploratory (Yin, 2003) therefore the researcher has adopted qualitative research method for this objective. The objective to adopt this method is to study the details of the problem and develop proper understanding of people and context of the environment in which the researcher intends to conduct the study (Myers, 2013). With the help of this research method the researcher can build proper understanding of the research problem by understanding the patterns and relations in dialogue, documents which are archived, diagrams which exist in work place etc. The strength of the qualitative research method is the Inductive approach. The focus here is on circumstances or people which are very specific in nature and their emphasis is on words rather than numbers (Myers, 2013). The eight characteristics of Qualitative research and researcher are given below in the table 3.4
<table>
<thead>
<tr>
<th>Research Method</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualitative Research</td>
<td>• Naturalistic- takes place in the natural world</td>
</tr>
<tr>
<td></td>
<td>• Uses multiple methods that are interactive and humanistic</td>
</tr>
<tr>
<td></td>
<td>• Is emergent rather than tightly prefigured</td>
</tr>
<tr>
<td></td>
<td>• Is fundamentally interpretive</td>
</tr>
<tr>
<td></td>
<td>• Views social worlds as holistic or seamless</td>
</tr>
<tr>
<td></td>
<td>• Engage in systematic reflection on his own role in the research</td>
</tr>
<tr>
<td></td>
<td>• Is sensitive to his personal biography and how it shapes the study</td>
</tr>
<tr>
<td></td>
<td>• Uses complex reasoning that is multifaceted and iterative</td>
</tr>
</tbody>
</table>

The Table 3.5 below shows the comparison of Qualitative and quantitative research
<table>
<thead>
<tr>
<th>Purpose</th>
<th>Quantitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Precise management and comparison of variables</td>
<td>• Meaning, context &amp; process</td>
<td>• Discovering unanticipated events, influences and conditions</td>
</tr>
<tr>
<td>• Establishing relationships between variables</td>
<td>• Understanding single cases</td>
<td>• Understanding single cases inductive development of theory</td>
</tr>
<tr>
<td>• Inference from sample to population</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conceptual Framework</td>
<td>• Variable Theories</td>
<td>• Process theories</td>
</tr>
<tr>
<td>Research Questions</td>
<td>• Truth of proposition</td>
<td>• How and why</td>
</tr>
<tr>
<td>• Presence or absence</td>
<td>• Degree or amount</td>
<td>• Meaning</td>
</tr>
<tr>
<td>• Correlation</td>
<td></td>
<td>• Context (Holistic)</td>
</tr>
<tr>
<td>• Hypothesis testing</td>
<td></td>
<td>• Hypothesis as part of conceptual framework</td>
</tr>
<tr>
<td>• Causality (Factual)</td>
<td></td>
<td>• Causality (physical)</td>
</tr>
<tr>
<td>Research Methods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship</td>
<td>• Objectivity/ reduction of influence (researcher as extraneous variable)</td>
<td>• Use of influence as tool for understanding (researcher as part of process)</td>
</tr>
<tr>
<td>Sampling</td>
<td>• Probability Sampling</td>
<td>• Purposeful sampling</td>
</tr>
<tr>
<td>• Establishing valid comparisons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data collection</td>
<td>• Prior developments of instruments</td>
<td>• Inductive development of strategies</td>
</tr>
<tr>
<td>• Standardization</td>
<td>• Measurement / testing-quantitative</td>
<td>• Adapting to particular situation</td>
</tr>
<tr>
<td>• Categorical</td>
<td>• Numerical descriptive analysis (statistics, correlation)</td>
<td>• Collection of textual or visual material</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>• Estimation of population variables</td>
<td></td>
</tr>
<tr>
<td>• Statistical hypothesis testing</td>
<td>• Conversion of textual data into number of categories</td>
<td></td>
</tr>
<tr>
<td>• Textual analysis (memos, coding, connecting)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Validity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal validity</td>
<td>• Statistical conclusion validity</td>
<td>• Descriptive validity</td>
</tr>
<tr>
<td>• Construct validity</td>
<td>• Causal validity (control of extraneous variables)</td>
<td>• Interpretive validity</td>
</tr>
<tr>
<td>Generalizability</td>
<td>• External validity (comparability)</td>
<td>• Construct validity</td>
</tr>
<tr>
<td>• Transferability</td>
<td></td>
<td>• Causal validity (identification and assessment of alternative explanations)</td>
</tr>
<tr>
<td>For this objective qualitative research method has been selected. The reasons for selecting qualitative research method include the nature of research questions that indicate qualitative</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
approach and the objective of the study to explore the process of integrated marketing communication, channel selection in India which needs to focus on the process. Involvement of researcher is needed to understand the entire process. Semi structured interviews have been used for data collection.

Qualitative Research further includes 5 approaches. The table 3.6 below shows the comparison of these five approaches.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Biography</th>
<th>Phenomenology</th>
<th>Ethnography</th>
<th>Case Study</th>
<th>Grounded Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus</td>
<td>Exploring the life of an individual</td>
<td>Understanding the essence of the experience</td>
<td>Describing and interpreting a culture-sharing group</td>
<td>Developing an in-depth description and analysis of a case or multiple cases</td>
<td>Developing a theory grounded in data from the field</td>
</tr>
<tr>
<td>Type of problem best suited for design</td>
<td>Needing to tell stories of individual experiences</td>
<td>Needing to describe the essence of a lived phenomenon</td>
<td>Describing and interpreting the shared patterns of culture of a group</td>
<td>Providing an in-depth understanding of a case or cases</td>
<td>Grounding a theory in the views of participants</td>
</tr>
<tr>
<td>Discipline background</td>
<td>Drawing from the humanities including anthropology, literature, history, psychology and sociology</td>
<td>Drawing from philosophy, psychology, and education</td>
<td>Drawing from anthropology and sociology</td>
<td>Drawing from psychology, law, political science, medicine</td>
<td>Drawing from sociology</td>
</tr>
<tr>
<td>Unit of analysis</td>
<td>Studying one or more individuals</td>
<td>Studying several individuals that have shared the experience</td>
<td>Studying in a group that shares the same culture</td>
<td>Studying an event, a program, an activity, more than one individual</td>
<td>Studying a process, action, or interaction involving many individuals</td>
</tr>
</tbody>
</table>

*Source: (Creswell, 2007)*

### 3.8.5 RESEARCH STRATEGY

Investigation of the current process, the context to real life situation where there is no clear evidence between what is happening and why is it happening is the main focus of case study method. Case study research is executed with the help of various sources of evidence for triangulation of data (Yin, 2003). In this research we have to understand the process of integrated
marketing communication, channel selection mechanism adopted by automotive lubricant companies in India. In this integrated marketing communication channel selection process, the tacit and explicit knowledge available with top level marketing managers in the Automotive Lubricant Companies in India needs to be captured to develop understanding about existing process in integrated marketing communication process. Therefore there is a need to gather an in-depth understanding of the entire process. Qualitative Research method is the best suited method here.

Case study method was chosen as it matches best with the requirements of the research. This method is used when questions bear the nature of how, and when the focus is on real life context (Yin, 2003). Case study method allows a researcher to pursue to understand the answer to how in a real life context and the outcome is based on a huge number of relevant variable (Yin, 2003) therefore this research adopted Case Study Method.

The purpose of this research is to study the integrated marketing communication selection channel mechanism adopted by Automotive Lubricant Companies in India. Case study approach has been adopted for the study as the definition of the case study method goes as “the central tendency among all types case study is that it tries to illuminate a decision or set of decisions; why they were taken, how they were implemented and with what results” (Yin, 2003).

The design and methodology decisions which have been chosen for the study is summarized by enclosing the methods and techniques used in the figure 3.3 below.
3.8.6 CASE STUDY DESIGN

The case study design specifies the process of execution of case study, the selection of cases, unit of analysis, and criteria of case selection. The figure 3.4 below explains case study design used in this study.
As a research strategy the case study method includes all the aspects like data collection, data analysis and data presentation (Yin, 2003) therefore in this method the researcher starts the study with discussion of existing literature, data collection and analysis of the evidences through an interpretive perspective (Yin, 2003). The same strategy has been used here.

For this study there researcher has chosen two PSU’s and two private sector companies which are Automotive Lubricant Companies in India holding 72% of the overall market share of Automotive Lubricant Market in India.
(i) NUMBER AND TYPE OF CASES

One of the important aspects in case study method is the selection of case. In case the researcher aims at testing of a well formulated theory or a unique case then the method suggested is a single case study design (Yin, 2003). None of these conditions are applicable in this research therefore the researcher has chosen multiple case designs. In this design every singular case tends to serve a purpose which is explicit in nature within an overall scope of examination (Yin, 2003). In such design replication logic is needed and this tends to increase the external validity of research (Yin, 2003). HPCL, BPCL, PETRONAS, TOTAL are the leading Automotive Lubricant companies in public and private sector respectively. The replication logic says that the examination of series of cases should be treated as a series of experiment. Every case helps the researcher to either confirm or not confirm the conceptual lens which is framed during the study. The aim of the replication logic is to show similar results and also give reasons for contrasting results. (Yin, 2003) For this research work, multi case holistic design (Yin, 2003) has been selected. The reason to choose this design is because of the evidence of the fact that multiple faces given outcome which are mere compelling and the overall study is considered to be robust (Yin, 2003). The figure 3.5 below shows the basic type of designs of case study.
(II) SELECTION OF CASES

The cases were selected on the basis of theoretical and pragmatic consideration. In the automotive lubricant industry in India, HPCL hold a market share of 25%, IOCL 33%, Shell 7%, and PETRONAS 3% of the overall market share. Therefore these four cases have been chosen for the study on the Integrated Marketing Communication Channel selection mechanism adopted by Automotive Lubricant companies in India.
The topmost levels have been selected to cover the decision making in the process at various levels. A common process which is applicable has been identified for the automotive lubricant companies in India. Based on the study of these four case studies, the process of Channel Selection and final media selection has been executed for Automotive Lubricant Companies in India.

(iii) SAMPLING

Theoretical Sampling has been employed for the study. For data sample, the top most employees were at decision making level were identified across automotive lubricant companies. These people were identified through various networks. These included General Manager Marketing, Vice President Marketing & Branding, Chief Marketing Officer working in these Automotive Lubricant Companies in India. They were interviewed on the basis of their availability at their respective offices. The names and contact details of these samples were obtained from the resources and networks that were used to identify these people. Finally the interviews were conducted for all four Case Studies.

3.8.7 DATA COLLECTION METHOD

“Immersion in the details and specifics of the Data to discover important categories, dimensions & inter-relationships; exploring genuinely open questions rather than testing theoretically derived hypothesis” (Patton, 1990). The data so gathered in this research has been analyzed and the interpretation has been done inductively. Further Qualitative data is detailed, thick description, enquiry in depth, direct quotations capturing people’s personal perspective and experiences (Patton, 1990).

The advantages of Case study Method are:
(A) This method specifically focuses on the collection of data in a systematic manner which is further organized to execute the data analysis in such a manner that the researcher can ensure detailed and deep information with respect to each case which is being studied.

(B) Interviewees have the freedom to voice their experiences as per their own way and in their own preferred language rather than what the researcher prefers.

(C) The collection of evidences for data is executed by approaching various resources like interviews, Archival records, documents, questionnaire, observations and physical artifacts (Yin, 2003).

(D) With the help of triangulation of data which is collected from multiple sources the research findings get validity by using this method.

The data collection primarily starts when the researcher visits the offices of the sample units for the case studies, and collects the data after a visit is confirmed. The empirical investigation of this research study involved collection of data from the marketing departments of Automotive Lubricants Companies in India. The data of these companies was collected through Interviews and informal discussion. The researcher compiled all the notes in detail pertaining to the field and made a note of all the interactions that took place between the researcher and the Interviewee. The Data was collected from the top level marketing personnel with the help of case study protocol. A Case study protocol is a valid document which comprises of a questionnaire which is used for the purpose of data collection as well as includes the general rules which are followed while the protocol is in use. During the stage of data collection, construct validity was determined with the help of multiple sources of the evidence and reliability has also been ensured by using case study protocol (Yin, 2003). Later in the section the data collection protocol which has been used for the interview has been discussed in detail. The case study protocol was developed with details before the researcher began the data collection and semi structured interviews with the top most marketing divisional personal of the automotive lubricant companies in India were conducted. Before the interview was started the Interviewee was given
an explanation that the case study material and the data collected through interview shall be used in two ways. The foremost aim was to understand the mechanism of Integrated Marketing communication channel selection for the research study and secondly to make effective use of data for the publication in thesis and conference papers. The interviews were conducted at top most marketing divisional level in order to collect the data in order to study the Integrated Marketing Communication Channel selection process in India.

The Interview is lasted between 60-90 minutes. While the interviews were executed they were completed recorded and a full transcription of the same has been done. Once the scripts were typed these were shown to the Interviewees which included the questions that were asked in order to follow up. The summary of the main steps of data collection for all the cases have been summarized in the table 3.7 given below.

<table>
<thead>
<tr>
<th>Steps in data collection</th>
<th>Case studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of Case study Protocol( CSP), Review and Final CSP development</td>
<td>December, 2013 to April, 2014</td>
</tr>
<tr>
<td>Initial Contact and Arrangements</td>
<td>May 2014- June 2014</td>
</tr>
<tr>
<td>Data Collection Interviews</td>
<td>July 2014 to August 2014</td>
</tr>
<tr>
<td>Company visits for observations</td>
<td>September 2014</td>
</tr>
<tr>
<td>Review of case report for internal validity</td>
<td>October 2014</td>
</tr>
<tr>
<td>Total number of interviews</td>
<td>4</td>
</tr>
</tbody>
</table>
3.8.8 DATA ANALYSIS STRATEGY
The main purpose of the qualitative investigation is to ensure that the investigation has been systematic and the analysis of the data is also systematic in nature in order to present the complete interpretation and findings which are meaningful in nature. The challenges in data analysis are “Making sense of massive amount of data, reducing the volume of information, identifying significant patterns and constructing a framework for communicating the essence what the data reveals” (Patton, 1990). The interpretations of the researcher and description of the process is the foundation of data analysis in this research. The interpretations so presented are subjective on the basis of actor’s experiences in a context. Such kind of approach has been classified in the modified form of Grounded theory (Patton, 1990). The aim of the data analysis is to identify the mechanism of Integrated Marketing Communication Channel Selection adopted by Automotive Lubricant Companies in India. The two major steps for the data analysis in this research include Within Case Analysis and Multi Case Analysis. With the case approach has been adopted in order to bear an understanding about each case individually and providing it a thorough documentation. The Multi case Analysis on the other hand allows researcher to explore similarities across cases.

With the help of Within Case Analysis the researcher is able to organize each case individually for in-depth study and further manages the massive accumulation of data (Yin, 2003). After completing the data collection and the analysis of each and every individual case, the multi case patterns have been researched from Qualitative data. These patterns are accounted as categories, code, dimensions & theme / scheme classifications (Patton, 1990).

In order to carry out within the case similarities and between case differences, the initial conceptual constructs have been identified for conceptual lens. The conceptual lens has been presented in the figure 3.6 below:
FIGURE 3.6: CONCEPTUAL LENS
The data analysis has been executed with the Textual Analysis and Multi case Synthesis. Textual Analysis has been carried out with the help of Atlas TI software; formulation of network diagrams have been done with Quotations put at necessary places and frequency analysis.

(I) DATA ANALYSIS USING GROUNDED THEORY

The data analysis using grounded theory is an iterative process involving several iterations between interview data, existing theory and observation data (Charmaz, 2006). The steps that were followed while conducting data analysis are given as under;

1. Open Coding
2. Axial Coding
3. Selective / Focused Coding

The three steps are more involved in exploration and creating a basic understanding about the process of integrated marketing communication channel selection adopted by Automotive Lubricant companies in India with the help of development of codes, categories and concepts of integrated marketing communication strategies channel selection mechanism. The last step helps in the identification of factors that contribute to the process of channel selection mechanism adopted by Automotive Lubricant Companies in India. The activities have been explained in detail as under;

STEP 1: OPEN CODING – Open coding method starts with the selection, categorization and combination of data feded in order to understand the main concepts. Identification of the relevant constructs is also done with the help of open coding. Part of the text which are sentences or paragraphs (Strauss, AL; Corbin, JM, 1990) describing the process of integrated marketing communication channel selection by Automotive lubricant companies have been assigned with
relevant labels so that they can be easily retrieved and categorized has been done while using the technique of open coding (Strauss, AL; Corbin, JM, 1990).

Identification of potential themes executed by investigator with the help of pulling the data from the text considered as real example is the process of open coding. The implication of open coding says that the discovery of the codes is done from the empirical data. Fresh codes are created as absolutely new evidences that emerge from data. Investigation of any new occurrence is done with the help of open coding. The focus of research is on the outcomes of theoretical categories from empirical evidences (Strauss, AL; Corbin, JM, 1990). The figure 3.7 below shows how the open coding has been done from the statements made in the interview.

![Figure 3.7: Example of Codes](image)

The coding of the Interview scripts has been done with the help of qualitative analysis software known as Atlas Ti. With the help of Atlas Ti the data analysis process was made smoother by
executing coding, linking codes and texts segments, creating memos, searching, editing and reorganizing and for visual display of data and findings (Creswell, 2007)

**STEP 2: AXIAL CODING** - In the axial coding the codes carrying common attributes are combined in order to create conceptual categories from the empirical data. In this coding the researcher explores how the concept and categories are related. Axial Coding is the process of relating categories to their sub categories. The essence of axial coding lies in the identification of a central characteristic or a phenomenon where the researcher can look into the differences in properties that exist. Axial Coding is therefore a process of reassembling or disaggregating data in a way that draws attention to the relationships between and within categories.

**STEP 3: SELECTIVE / FOCUSED CODING** - In this coding conceptual category are created. Selective coding helps in the consolidation of attributes in order to create meaningful categories which help in reduction of the number of codes that a researcher has to work with. Selective coding also helps in creation of the main things that emerge from the empirical data (Strauss, AL; Corbin, JM, 1990). These codes are grouped into categories with the help of a bottom-up approach as shown in the figure 3.8 below.
The open coding illustrated various codes involved in the Integrated Marketing Communication channel selection mechanism which were discovered by using empirical data. These codes have been further consolidated into categories which are broader in nature. The categories have been further classified into various concepts and themes. These concepts further form the basic unit of analysis that are used in grounded theory since the data has been conceptualized. Initially conceptual constructs identified related to Integrated marketing communication process from literature served as basis of identifying concepts. The first coding is done to the statements that illustrate these initial conceptual constructs. These codes are then consolidated into various categories; each category represented the factors which are related to integrated marketing communication channel selection process adopted by automotive lubricant companies in India. Each category is finally linked to the categories of initial conceptual constructs. The figure 3.9 below shows the categorization and linking process in detail.
With the help of open coding, axial Coding and focused coding the labeling of all the interview data into various codes, categories and concepts have been carried out. The relationships among codes and categories are compositional in nature. The relationships are generally of ‘leads to’, ‘consists of’, and ‘is associated with’. These causal relations are the basis of recognition of relationships between codes, categories and concepts.

**WITHIN CASE DATA ANALYSIS**

On the basis of Interview data interpreted in terms of research question the within the case data analysis is carried out: How do automotive Lubricant Companies in India select the Marketing communication channel. This approach helps to identify the various factors that contribute to selection of marketing communication channel. These factors further form the basis for marketing communication channel selection by the automotive lubricant companies in India. The relationship between the identified factors of marketing communication channel selection and
specific process of integrated marketing communication channel selection by automotive lubricant companies in India has been analyzed thoroughly.

The data analysis has been executed at two levels, conceptual and detailed. The findings of the conceptual analysis are descriptive in nature. These findings give a description about the nature of process and selection of integrated marketing communication channel selection. The detailed analysis findings hold perspective nature (Tsang, 1997). Therefore it describes the relationship among the factors that contribute to integrated marketing communication channel selection process. Two Level data Analysis provides better internal validity of the research study by triangulation of perspectives on the same data set. This is known as theory triangulation (Patton, 1990).

(III) MULTI CASE ANALYSIS

In the multi case analysis, replication logic is used. This analysis is done to seek comparison and explain common, different and complimenting findings in the study of channel selection mechanism of marketing communication by automotive lubricant companies in India. The findings across cases are integrated to form common analysis background.

3.8.9 QUALITY OF EMPIRICAL RESEARCH

This study does not claim the objectivity in line with the view of reality which is socially constructed. However it gives the argument that the evolving process is the outcome of all possible explanations of reality constructed with the researcher as active instruments. The theory replicates the observation as well as the observed. This research focuses on rich description of the mechanism of integrated marketing communication channel selection followed by automotive lubricant companies in India rather than on generalized statements that survive in the society (Yin, 2003). This kind of approach hold critique since it supports only the real generation of a local empirical work which is not generalized. Other author gave an argument that the
aforesaid approach bears the use by contributing to the existing body of knowledge. For evaluating quality of any research study following tests are used; Construct validity, internal validity, External Validity & reliability (Yin, 2003). The details of each of these are discussed further.

(a) **CONSTRUCT VALIDITY**

Construct validity refers to ascertaining the correct measures for the concepts that are being studied (Yin, 2003). The only need here is that the selected concepts are measured correctly. When the evidences are collected from multiple sources, data triangulation is employed for addressing the potential problems of construct validity (Yin, 2003). In order to address construct validity triangulation is used as a technique that offers combination of different sources of evidence in a single study. The case study approach offers an advantage of combining of different sources (Yin, 2003). This case study includes various sources for collecting relevant data like interviews, documents, observations and artifacts. For data analysis the Interviews and field observations are transcribed and used. This approach helps in the enhancement of construct validity by providing different perspective of the phenomenon. The review of the process reports is done by the key informants (Yin, 2003). The tool level of analysis including conceptual and detailed are carried out during data analysis. This analysis enhances the improvement of the construct validity of the research by triangulation of perspective on the same data set (Theory triangulation) (Patton, 1990). The details of the triangulations are presented below in the table 3.8.
<table>
<thead>
<tr>
<th>Concepts</th>
<th>Categories</th>
<th>Evidence Types</th>
<th>Details of evidences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated Marketing Communication Channel Selection</td>
<td>Review of the Marketing Plan in Terms of the Key areas of Issue</td>
<td>Interviews; Company’s Intranet; Documents; Informal Discussion;</td>
<td>Audio records and field notes of interviews; company’s internally filed documentation, Information available on intranet</td>
</tr>
<tr>
<td></td>
<td>Selecting the Target Audience</td>
<td>Interviews; Company’s Intranet; Documents; Informal Discussion;</td>
<td>Audio records and field notes of interviews; company’s internally filed documentation, Information available on intranet</td>
</tr>
<tr>
<td></td>
<td>Understanding The Target Audience Decision Making</td>
<td>Interviews; Company’s Intranet; Documents; Informal Discussion;</td>
<td>Audio records and field notes of interviews; company’s internally filed documentation, Information available on intranet</td>
</tr>
<tr>
<td></td>
<td>Determining the Best Positioning</td>
<td>Interviews; Company’s Intranet; Documents; Informal Discussion;</td>
<td>Audio records and field notes of interviews; company’s internally filed documentation, Information available on intranet</td>
</tr>
<tr>
<td></td>
<td>Developing a Communication Strategy</td>
<td>Interviews; Company’s Intranet; Documents; Informal Discussion;</td>
<td>Audio records and field notes of interviews; company’s internally filed documentation, Information available on intranet</td>
</tr>
<tr>
<td></td>
<td>Setting a Media Strategy</td>
<td>Interviews; Company’s Intranet; Documents; Informal Discussion;</td>
<td>Audio records and field notes of interviews; company’s internally filed documentation, Information available on intranet</td>
</tr>
</tbody>
</table>
(b) **INTERNAL VALIDITY**

The implication of internal validity is the establishment of causal relationship between the conditions in order to ensure that one leads to other with visible differentiation from the false relationships (Yin, 2003). Two types of problems arise with internal validity. Researcher cannot make an observation directly in an event every time further resulting into making inferences. The second is the existence of additional constructive factors that are termed as spurious effects. In this research various methods have been used to ensure that the above mentioned problems are addressed with the help of internal validity. The first employed in this study is theory triangulation where the perspective has been used on the same data set (Patton, 1990) and secondly the case reports have been reviewed by the key participants.

(c) **EXTERNAL VALIDITY**

External validity can be defined as generalization of findings by establishment of the domain of the study. Multiple case studies strategy helps in strengthening the generalization of the research findings. With reference to replication logic in case study, a major step of designing the multiple case studies has been carried out. This approach is replicated to suing of experiments in which the researcher generalizes the theory using one experiment to another (Yin, 2003). External validity is addressed using replication logic. The case study relies on the analytical generalization (Yin, 2003). The results of the case study research are at an acceptable level even if the replication logic is applied once. There is no need to perform multiple replications (Yin, 2003).

The reliability test is based on the objective of looking at errors and biasness. The operative portions of the study including data collection procedures can be repetitive in nature to produce a similar result using reliability test (Yin, 2003). In order to ensure consistency in applying the procedures for data collection and analysis various methods have been used in this research. A case study protocol has been used for seeking guidance in the research process. Development of protocol is a major method that helps to increase the reliability of case study research. The case
study protocol helps in executing the case study research (Yin, 2003). The protocol is inclusive of interview questions as well as the process and basic rules that should be followed while executing interviews. This further ensures the consistency in the areas covered within cases.

Interviews are recorded and transcription is done in order to capture all the data which allows independent data analysis by any other researcher also. Use of Atlas Ti software enables systematic and consistent analysis of the qualitative data and lastly the field notes are made and transcribed for future reference.

### 3.8.10 CASE STUDY PROTOCOL DEVELOPMENT

Here we shall discuss the use of case study protocol and also describe the process of development of the case study protocol for this research. As mentioned earlier the use of case study protocol helps in enhancement of reliability of the case study research and acts as a guide for the researcher in executing data collection from a single case study (Yin, 2003).

**(a) PROCESS OF DEVELOPING CASE STUDY PROTOCOL**

The case study protocol is directed at collection of data from a single data point. It is more directed towards the researcher (Yin, 2003). The case study protocol includes following main sections (Yin, 2003) :-

a) **Introduction to case Study and purpose of Protocol** – this highlights the research objectives, issues that are covered in case study research.

b) **Data Collection Procedures**- This includes the process to be followed while conducting the research which shall include access to the case study sites and explicit sources of information.

c) **Outline of Case Study Report**- this shall include format of data, use of other document and bibliographic information
d) Case Study Questions- This includes the questions that the researcher has in his mind while collecting data.

On the basis of conceptual framework, a case study protocol was developed. The draft case study protocol was presented to the subject matter expert in the marketing division of an Automotive Lubricant Company in India. A presentation was made on the construct of channel selection mechanism. The feedback from the team members on these construct was taken and incorporated in the final case study protocol.

(b) CASE STUDY PROTOCOL FORMAT

1) INTRODUCTION TO CASE STUDY AND PURPOSE OF PROTOCOL

Marketing communication process is continuous in automotive lubricant sector where different channels are selected. Although companies follow various mediums, yet there are certain new mediums like social media which are still not used in the Indian context, therefore this case study protocol has been prepared to study on how do automotive lubricant companies in India execute their marketing communication channel selection mechanism. To conduct the case study different automotive lubricant companies in India have been chosen to execute the study.

(2) PURPOSE OF CASE STUDY PROTOCOL

A case study protocol is a document that contains the questionnaire for data collection as well as the procedures, general rules to be followed while using protocol. In this purpose of case study protocol the researcher has used case study as research strategy to understand how automotive lubricant companies in India execute their marketing communication channel selection mechanism?
c) **DATA COLLECTION PROCEDURES**

1) **Names of the sites to be visited, including contact persons**

In this case study protocol the researcher has considered four companies. For all these case studies, data collection is done from the serving employees of these companies.

1) **Data Collection Plan**

The data collection from these employees was planned in the calendar year 2014. The data collection was planned by semi structured interviews with all individuals using case study protocol. The interviews were proposed to be conducted in the offices of these respective companies.

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<tbody>
<tr>
<td>Data Collection for Case study 1</td>
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<tr>
<td>Data Collection for Case study 2</td>
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<tr>
<td>Data Collection for Case study 3</td>
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<tr>
<td>Data Collection for Case study 4</td>
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</tbody>
</table>
2) Expected preparation prior to Data Collection

   a) Intimation of interview schedule and getting permission well in time from the employee regarding interview.
   b) Preparation if Interview tool kit including interview, guide, recording format, audio recorder etc.

d) CASE INTERVIEW GUIDE

This document serves as guideline specifying the type of questions in conducting Interview for this case study. The construct will be used for validation purpose. Documentary evidences will be identified during interview and same shall be recorded.

1. Description of the Case Study Identity

   A) Company:
   B) Name
   C) Designation
   D) Location
   E) Experience
   F) Date

2. The Interview Protocol

This section of interview will cover the primary research questions of this case study which deal with the study on mechanism of channel selection executed by Automotive Lubricant Companies in India.

Question 1: Before can one begins with the IMC strategic channel selection process, it is essential first to review the marketing plan. What are the key areas of issue that you consider in the pre-planning stage?
Question 2: How do you execute review of these areas in the preplanning stage of IMC channel selection process?

Question 3: The first thing that needs to be done to implement IMC strategic channel selection process is to select the appropriate target audience. In this context what are the parameters in which you first handedly group your target audience? Kindly reflect on the depth of the selection.

Question 4: How do you group audience in terms of loyalty?

Question 5: When the manager selects a specific target audience, it is not enough simply to look at the projected market share or revenue potential. What are the other factors that you consider while selecting a target audience?

Question 6: How do you link the selected and profiled target audience categories to the marketing strategy?

Question 7: How do you attempt to understand the decision roles (Initiator, influencer, decider, purchaser and user) of the participants in the identified target audience?

Question 8: What format do you use to arrive at the decision stages and how do you use them further in defining your communication objectives?

Question 9: How do you determine the positioning in case of communication? Is there any specific criterion on which the positioning is based?

Question 10: How and when do category need becomes a communication objective while developing the IMC strategic channel selection process?

Question 11: How do you decide which brand awareness response should form the basis of communication objectives while executing the IMC strategic channel selection process?

Question 13: How do you look at the brand attitude response that also forms the basis of objectives while executing the IMC strategic channel selection process?
Question 14: While setting the media strategy what are the requisites that you consider for arriving at the selection of media?

Question 15: How do you finally select and decide the IMC elements that you choose for marketing communication considering brand attitude and awareness?

3.9 RESEARCH DESIGN AND METHODOLOGY FOR OBJECTIVE 2

The second objective aims at identifying the significant factors to be considered while selecting social media as marketing communication channel by Automotive Lubricant companies in India.

3.9.1 RESEARCH MODEL AND HYPOTHESIS

The research model employed in the analysis for this objective is quantitative model, as there is a requirement to use an objective looking at the nature and audience to be studied. For this objective data is collected by using a quantitative instrument (Questionnaire), which is further analyzed by using statistical procedure to understand the relationship among the variables to judge the impact of independent variables on dependent variables. Hence quantitative research model is used in this objective as discussed (Creswell, 2007).

3.9.2 THE PHILOSOPHICAL WORLD VIEW PROPOSED IN THE OBJECTIVE

The present objective has the characteristic of being post positivist world view (Creswell, 2007). This objective has adopted a scientific way of executing research by holding a deterministic philosophy of cause and effect (factors that influence the selection of social media), identify the factors that influence selection, reductionist in the intent to reduce ideas into a small, discreet sect such as variables that comprise hypothesis and research questions. Measurement, objective analysis, collection of data on instrument based on measures completed by participant’s to develop relevant understanding of casual relationship of interest, adhering to the standards of reliability and validity, use of deductive logic are some of the hallmarks of this world view (Creswell, 2007). A replication of the same has been used in this research objective.
making it aligned with the post positivist world view. The pragmatic world view emphasis the research problem and employs all the approaches that are available to build understanding of the problem (Creswell, 2007).

3.9.3 STRATEGIES OF ENQUIRY

The Quantitative research goes on with either survey research or experimental research. For this research objective, survey and quantitative methodologies were used which helped in identification of variables, using closed ended pre-determined questions for data collection and employed statistical procedures for testing a hypothesis. All these are characteristics of quantitative research methods.

3.9.4 RESEARCH METHODOLOGY

The strategy of enquiry used was Survey which employed predominantly closed ended questions, pre-determined approaches, quantitative research methodology was chosen. The present research objective involved identification of variables, validity and reliability of instrument and extensive use of statistical tool to arrive at the conclusion, the appropriate methodology that the researcher found was Quantitative approach for research design.

3.9.5 SAMPLING PROCEDURES

(A) TARGET POPULATION

The target population for the survey was any company which is in the business of Automotive Lubricants in India. This included companies that have an active presence and market share in India and use marketing communications.
(B) SAMPLING FRAME
The respondents who have an employment in the marketing division of Automotive Lubricant Companies in India were identified as part of the Sampling frame. These included Marketing Managers, Regional Marketing Managers, Senior Marketing Managers, Product Managers, Brand Managers, Marketing Communication officers.

(C) SAMPLING ELEMENT
Since the survey was to design to see the factors to be considered while selection Social Media as marketing communication channel by Automotive Lubricant Companies in India, the sampling element was defined as people those who were serving in the middle level management of marketing division of these companies.

(D) SAMPLING UNIT
The Sampling unit was defined as those employees who were reporting in the marketing division in their respective Organizations while are automotive lubricant companies in India.

(E) EXTENT
The extent of data collection exercise has been restricted to Indian geography.

(F) TIME PERIOD
The data collection exercise was targeted at mid and senior level management with five to ten years of experience in the marketing of Automotive Lubricants in India.

(G) SAMPLING TECHNIQUE
Quota Sampling was used during the data collection process.

(H) SAMPLE SIZE
To calculate the sample size needed for the research, Yamane’s formula was used (Yamane, 1967). The formula is given below:

\[ n = \frac{N}{1 + Ne^2} \]

Overall 680 people were identified as the target population for the survey who were senior marketing professionals in their respective organizations. Incorporating \( N = 680 \) & \( e = 0.05 \) in the above equation, the sample size was arrived at 251. Originally the questionnaire was administered to 550 respondents but some of the responses received were incomplete. So those who submitted incomplete questionnaire were removed from the list. Finally 390 respondents were found to have submitted their responses that were complete in all aspects— a response rate of 70% is achieved which is acceptable (Malhotra & Dash, 2010). Also to conduct factor analysis, it is the norm (Malhotra & Dash, 2010) to have 6 respondents to have each variable. In this survey there are 57 variables which would need 342 respondents to participate in the survey. 390 respondents are higher than the number needed to do factor analysis and therefore satisfy the condition.

3.9.6 INSTRUMENT DESIGN

The instrument that was used in the data collection exercise for this research was a questionnaire which contained 60 questions in 7 sections. The questionnaire had all the questions with pre-defined choices. The details of instrument development, scale formation, questionnaire format, data collection, validity and reliability test are given further.

(A) QUESTIONNAIRE DEVELOPMENT

Structured-undisguised questionnaire was used in the survey—as they are reliable, standardized, simple to administer, easy to tabulate and analyze where the responses permitted to the respondents were pre-determined on a 1-7 likert scale.
i) INFORMATION SOUGHT- The list of variables found from literature survey was presented to the respondents in the form of questions and they were asked to choose an option (In the 5 point likert scale) whether a particular variable will influence the selection of Social Media in the integrated Marketing Communication of Automotive Lubricant Company in India (Not at all significant to Very Significant).

ii) METHOD OF ADMINISTRATION- The questionnaire was handed over predominantly in person at the respective offices of these companies in India where people from marketing division were also functioning to ensure that we were assessing the right respondents and their response rates could be better compares to mail Interview. The respondents completed answering the questionnaire at their convenience. However questionnaire was also sent by email to respondents who specifically requested for emails.

(B)SCALE FORMATION

In this research the variables that were identified from the literature survey are converted into questions which were administered to the senior marketing professionals of automotive lubricant companies in India. The respondents were then asked to give their opinion on whether a variable is significant in influencing the selection of Social Media or not. Since this is a one dimensional activity, one of the unique dimensional scaling methods needs to be chosen to develop the scales for the questionnaire. There are 3 such methods;

1. Thurstone or Equal – appearing Interval Scaling
2. Likert or “Summative” Scaling
3. Guttman or “Cumulative Scaling”

Likert Scale is predominantly used scaling technique as it is easier to construct and administered. Likert is an interval scale where the distance between attributes are constant and can be interpreted, subsequently exploited using Quantitative techniques like factor analysis and
regression. The items that need to be rated as part of the thesis were generated using Literature survey (57 variables). The scales developed were:

1= Not at All Significant

2= Not so Significant

3= nether Significant nor Insignificant

4= Quite Significant

5= Very Significant

The responses from the respondents were captured and fed into SPSS software for further analysis.

3.9.7 PILOT TESTING

The questionaire was pre tested with 50 respondents. The responses were added in a dummy table to make sure that the questions were understood correctly and the answers were in line with the questions asked. A couple of ambiguous questions were reworded, ordering of the questions were changed as per the feedback received before the questionnaire were administered again.

(i) INSTRUMENT RELIABILITY

Reliability is concerned with the consistency of the measurement, which means whether the questions in the survey get same type of response when the conditions remain the same. Reliability has its association with internal consistency also which means whether the same characteristic is measured by different persons. There are four ways to estimate the reliability of the instrument (Questionnaire). They are inter rater or inter observer reliability, test –retest reliability, parallel forms reliability and internal consistency reliability. Each of these estimates
evaluates the reliability of the questionnaire differently. Among these internal consistency is the most frequently used method to validate the reliability of the instrument.

The reliability of the instrument is estimated when similar results are obtained by the items that measure similar constructs. Hence a group of people are administered a single measurement instrument, with different items, to check whether the results are consistent as they measure the same construct. There are several internal consistency measures that are used. One of the most frequently used estimates of internal consistency is Cronbach Alpha.

In this thesis Cronbach Alpha is used to estimate the reliability of the survey instrument. As the survey instrument used in the research work adopts a five point likert point scale, it is Cronbach Alpha coefficient which is calculated to check the internal consistency and reliability of the instrument. Cronbach Alpha measures the inter relatedness of the items within the test. In other words Cronbach Alpha measures how closely a set of variables are related as a group and the extent to which all the items in a test measures the same concept or construct. Cronbach’s Alpha reliability coefficient normally ranges between 0 to 1. The closer cronbach Alpha coefficient is to 1 the greater the internal consistency of the items is in the scale.

The Cronbach alpha scores conclusively prove the reliability of the instrument used for the research purpose of this thesis.

3.9.8 QUESTIONNAIRE FORMAT

The questionnaire has a total of 60 questions divided into 7 sections(Annexure ii). All the sections have questions on the identified 57 variables that the respondents answer on a 5 point likert scale which get feds on the SPSS software for data analysis.

3.9.9 QUESTIONNAIRE ADMINISTRATION FOR DATA COLLECTION
The questionnaire was administered to 390 marketing professionals who are at mid and top level leadership in their organizations which includes Automotive Lubricant Companies in India. The Validity and reliability of the questionnaire was pre tested using Cronbach Alpha test and was found to be in compliance with the qualification criteria of $\alpha > 0.7$. The sources of data were primary.

3.10 CONCLUDING REMARKS

In this chapter, research design and methodology have been discussed extensively. Case study format, interview protocol and method of interviews have been discussed in detail. Further, for second objective details of sampling, questionnaire and questionnaire administration have been discussed.