2. Exploratory research design

2.1 Chapter summary

This chapter will start with defining research design, classifying various designs and explaining the difference between exploratory and conclusive research designs by comparing and contrasting the basic research designs: exploratory, descriptive and causal. It will explain how the problem definition is linked with the selection of research design and will then explore the exploratory research design in detail. It will provide classification of exploratory research design and discuss important research techniques such as in-depth interviews, focus groups and projective techniques.

2.2 Research design and its importance in research

The term 'research design' is used in variety of ways by researchers. It is referred as a master-plan, blueprint, and even as a sequence of research tasks and activities. Research design in simple terms is a plan of the methods and procedures that is used by researchers to collect and analyze the data needed by the manager. The research design provides a plan of how the researcher will go about answering the research question(s) defined by the manager and researcher together (clearly defining the problem into a researchable question is extremely important). The research design also contains clear objectives, derived from research question(s), specify the information sources from which data will be collected, the type of data, the design technique(s) (survey, observation, experimentation etc.), the sampling methodology and procedures, the schedule and the budget. There should be clear justification with regard to the research design based on the research question and objectives.

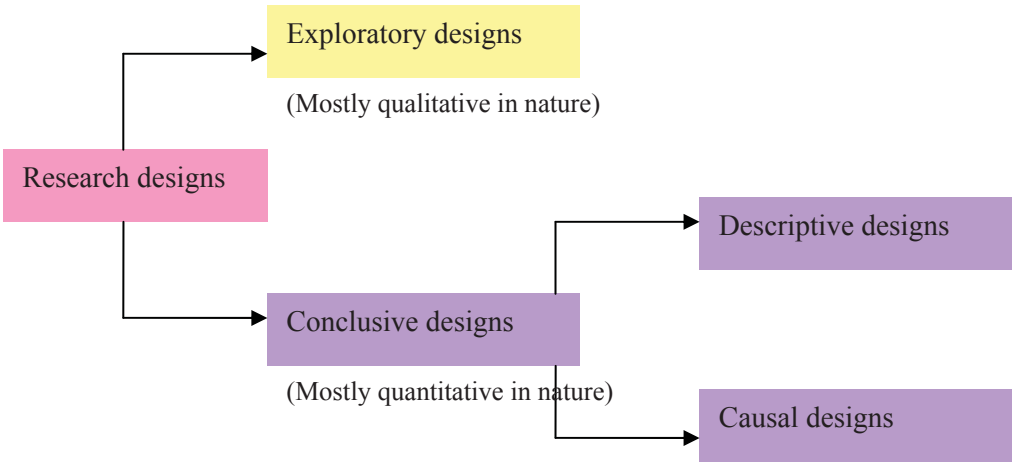
As stated above, the purpose of any research design is to obtain evidence which addresses the research question and objectives. Usually, however, there are a number of ways in which it can be achieved. Although, every research question is unique, most research objectives can be met by using one of the three types of research designs: exploratory, descriptive and causal. In real-life situations, while addressing research question and objectives a researcher needs to make number of trade-offs with regard to various elements of research design.

Research design holds all the parts and phases of the research project together. A poorly developed design fails to provide accurate answers to the research question under investigation and in turn does not assist the manager in the decision making process. The foundations of research design are firmly based on scientific rigour and objectivity. Any personal, procedural, or methodological bias involved in research design will have an impact on entire research process. Therefore, developing a sound research design is an extremely important aspect of any research project.

2.3 Classification and differences between research designs

Researchers have mixed different styles of inquiries for many years. They have recognized that all methods have their inherent strengths and weaknesses. Most researchers broadly classify research designs into two types: exploratory and conclusive. Furthermore, some researchers classify conclusive research designs as descriptive or causal. Therefore, there are 3 major classifications of research designs namely; exploratory, descriptive and causal.

Figure 2.1:
Classification of research designs



The research designs involve two types of data collection: secondary and primary. Secondary data involves collection of data that already exists. These data may be collected and assembled for some research problem situation other than the current situation. Secondary data and analysis is useful at all stages of the marketing research process. However, it is particularly useful at the problem definition and exploratory research design stage. Secondary data mostly involves desk or library research and can serve managers' needs for information on their markets, competitors, customers and overall environment. In some cases if done thoroughly, secondary data collection can solve the research problem at hand without requiring more expensive stage of primary data collection. The table below provides examples of several secondary data sources. Please remember the table below provides a generic idea and is not an exhaustive list.

Table 2.1:
Secondary data sources

Data source	Example
Internal data	In company reports, memos etc.
Syndicated data	Syndication services like AC Nielson
Expert advice	Newspaper, interviews, reports
Internet	Various search engines, portals and websites
Industry data	Industry or trade associations
Macro data	Government and international publications
Market research report	Independent market research firms

While secondary data is collected from various established sources, primary data are originated by the researcher for the specific purpose of addressing the problem at hand. Primary data may be qualitative or quantitative in nature. As stated in chapter 1, the distinction between qualitative and quantitative research data parallels with distinction between exploratory and conclusive research.

In recent years, qualitative research has come to refer to selected research methods used in exploratory research designs. One of the major aims of qualitative research is to gain preliminary insights into decision problems and opportunities. This technique of data collection focuses on collection of data from a relatively small number of respondents by asking questions and observing behaviour. In qualitative research most questions are open-ended in nature. Advantages of qualitative methods include: economic and timely data collection; rich data; accuracy of recording market behaviour; and preliminary insights. On the other hand, disadvantages of qualitative methods include: lack of generalizability, reliability and validity.

Quantitative research methods, seek to quantify the data and typically apply some statistical analysis. They put heavy emphasize on using formalised standard questions and predetermined response options in questionnaires or surveys administered to large number of respondents. Today, quantitative research is commonly associated with surveys and experiments and is still considered the mainstay of the research industry for collecting marketing data.[17] Quantitative research designs are more directly related to descriptive and causal designs than the exploratory design. The main objective of quantitative research is to provide specific facts which can help decision maker take an informed decision. Furthermore, it provides insights relating to relationships between phenomena. Due to large sample size and statistical rigour quantitative research provides advantage in terms of generalizability, reliability and validity however, is time consuming and at times very costly.

2.4 Exploratory research design

As the term suggests, exploratory research design deals with exploring into the phenomenon. In case of marketing research, it is used in cases when the problem must be defined more precisely, and to gain additional insights before an approach can be developed. It is not used most times to generate a course of action for decision making. At the exploratory design stage, the information is loosely defined. Exploratory research design focuses on collecting either secondary or primary data using an unstructured format or informal procedures to interpret them. Among all the three classified research designs above, exploratory research designs incorporates the least amount of scientific method and rigour because of aims and structure. Some examples of exploratory research designs include in-depth interviews, focus groups, and projective techniques. We shall discuss each of them in details.

2.4.1 In-depth interviews

In-depth interviews are an unstructured and direct technique of obtaining insights in which a single respondent is probed by a skilled interviewer to uncover underlying motivations, beliefs, attitudes and feelings on the topic of enquiry.[18] It endeavours to understand the nature and make-up of the area being researched, rather than precise measurement.[19] In-depth interviews can last from 30 minutes to 2 hours and can provide ample information. This technique allows the researcher to collect both attitudinal and behavioural data from the respondent from all time frames (past, present and future).[20] A unique characteristic of this technique is that the interviewer has ample chance at probing the respondent and collect in-depth data. The interviewer can use the answers provided by respondent and turn them into related questions ensuring a more detailed answer.

In recent years, three in-depth interviewing techniques have gained popularity among researchers. They are (a) laddering, (b) hidden test questioning and (c) symbolic analysis.[21] In laddering, the line of questioning proceeds from product characteristics to user characteristics. This technique allows the researcher to tap into the customer's network of meanings and provides an effective way to probe into customer's deep psychological and emotional reasons that affect their purchase behaviour. Laddering is useful in developing 'mind map' of a consumer's view towards the targeted product. Several such consumer mind maps when combined together can provide detailed insights relating to underlying motivations and behaviour of a group of consumers and can help form a decision for a manager. The second technique, hidden test questioning, focuses on not just socially shared values but also personal concerns of a consumer. This kind of questioning can lead to unravel much deeply felt beliefs rather than general lifestyle and attitude of consumers. As the name suggests, symbolic analysis, attempts to analyse the symbolic meanings consumers associate with products. In this technique researchers use deductive logic and attempt to understand the meaning in the consumer's mind by comparing the product or idea with its opposite. For example, researcher may ask a consumer what a certain product is not and by asking such question limit the scope of discussion and symbolic meaning may appear. As one can gauge from the above discussion that these techniques of in-depth interviewing compliment each other. In most in-depth interviews these techniques are used together rather than in isolation. For example, asking a question such as 'what do you think people feel about brand X?' (laddering question) can lead to a question 'what do you feel about brand X personally?' (hidden test questioning). This questions in turn may lead to another question such as 'if brand X was an animal what would it be and why?' (symbolic analysis).

As the questions asked in this technique of data collection are probing, unstructured and connected, an interviewer must possess excellent interpersonal communication, listening, probing and interpretive skills. The interviewer's role is critical to the success of the in-depth interview. If conducted in correct manner, in-depth interviews provide researcher the flexibility, large amount of data collection from a single respondent and reveal much hidden attitudes, motivations, feelings and behaviour. However, as discussed earlier the data collected are subject to the same general limitations of exploratory methods. Although the

data generated is large, the lack of structure makes the results less generalizable to a wider population (as it is a single respondent's view). Furthermore, it is not easy to find expert in-depth interviewers and because it is a one-to-one interaction cost and time involved in conducting and analysing is higher than most other techniques.

2.4.2 Focus groups

Focus groups are one of the most popular qualitative research methods used around the world. Many times researchers and managers use the term focus groups to define qualitative research.[22] Focus group is a formalized process of bringing a small group of people together for an interactive, informal and spontaneous discussion on a particular topic or concept. A focus group generally involves eight to twelve participants and can capture vast array of information. The focus groups timing can vary from 1 to 3 hours and is usually conducted in a congenial surrounding such as a hotel or specialist focus group research facility. By getting the group members to talk at length about the topic, the moderator can gather vast amount of information on ideas, attitudes, feelings and experiences about a particular issue. Focus groups are usually constructed using similar participants to encourage positive discussion. The advantage of selecting participants from the same demographics (age, income, gender and such other variables are called demographics) helps ensure that group members feel at ease with each other. It is believed that people with similar characteristics are more like to divulge their opinions in a group. However, in some cases a diverse group can also be selected to encourage a wider viewpoint relating to a concept or product. This is an extremely important issue as it is hard to control group dynamics when more than 12 people are involved in a discussion.

The group of participants is guided by a leader of the focus group who is called moderator. The discussion at start is led by the moderator who introduces the topic of discussion and attempts to get everyone to participate in a honest discussion and debate. The moderator maintains a certain degree of control over the discussion by directing it whenever the discussion moves too far from the research objectives set forth.

The major goal of any focus group is to provide as much information as possible to the decision maker regarding the issue at hand. With a group of people involved, group dynamics becomes a very crucial issue in focus group discussions. The success of any focus group relies heavily on the overall group dynamics, willingness of members to engage in an interactive dialogue, and moderator's ability to keep the discussion on track.

Focus groups are conducted for variety of different objectives. For example they may be conducted for:

a) Understanding the effect of an advertisement prior launch on the target market
b) Launching new products or services in an existing or a new market
c) Understanding changing customer preferences and choices
d) Finding the effects of change in marketing mix variables (i.e. product, price, place and promotion)
e) Revealing hidden consumer preferences, motives, expectations and their relation to overall behaviour.

There are several variations in focus group discussion groups which involve smaller or larger group sizes, single or multiple moderators, direct organizational involvement or neutral setting.

There are several advantages of focus group technique. Focus group can help generate creative ideas, thoughts and opinions relating to a topic. They can highlight the underlying reasons for a specific set of actions by a consumer and overall behaviour. They also allow client participation and provide consumer response in a direct manner. They also provide an interaction opportunity for organization to reach specific market segments. While there are many advantages of focus groups, they also have disadvantages. The major weaknesses of focus groups are inherently similar to qualitative research techniques. They include the limited generalizability of results to the target market, involve subjectivity (bias) of representation and interpretation, data reliability and validity and are costlier than in-depth interviews as it brings diverse groups of respondents together.

2.4.3 Projective techniques

Projective techniques involve indirect form of questioning which allows the respondent to project their beliefs, opinions, feelings, attitudes and emotions on an issue of concern. Projective techniques consist of several techniques of qualitative data collection. These techniques are useful when the respondent is not at ease in answering questions. The underlying objective is to learn more about the subject in situations where they might not reveal their true thoughts under direct questioning. The techniques relating to this area were developed in the field of motivational science and clinical psychology. The techniques include pictorial construction, word association tests, sentence completion tests and role plays. In marketing research, these techniques are used to describe association with a product or an organization indirectly, without explicitly stating the association.

In pictorial construction technique, the respondent is shown a picture and instructed to describe his or her reactions by writing a short narrative story relating to the picture. At times this technique is used in focus groups scenarios to get a better idea of how respondents perceive an organization or product in a group setting. The difficulty with such techniques comes in understanding and interpreting what the response really means. Traditionally, this technique has proven quite useful in communications industry where experts have used it in testing the impact of product packaging, labels, brochures and advertisements.

In word association technique, respondents are exposed to preselected words one at a time and are asked to respond what comes to their mind regarding that word. This is put into the context of a brand name or a product attribute. For example, respondent may be asked to think what word comes in their mind when they are exposed to the word ‘call’. Some may answer mobile phone, texting, Nokia, friends, Motorola etc. After completing the list of words, researchers than look for hidden meanings and highlight associations between the words and the responses. This technique has been used successfully in research relating to positioning and branding.

In sentence completion technique, incomplete sentences are provided to the respondents who are then asked to complete them. The researchers hope that such completion will reveal hidden motives, feelings and behaviour towards the issue at hand. For example, researchers may ask people who play on Xbox are _____ and people who play on Wii are_____. This examples highlights respondents feelings about how do they profile Xbox and Wii consumers in their own minds. From these data collected, researchers’ task is to interpret and evaluate meaningful themes. The themes can help in identifying competitive positioning within the marketplace.

Respondents are asked to assume a particular role of a third person, such as a neighbour or a friend in role plays. They are then exposed to a particular, predetermined situation, and asked to verbalize how they would act in the situation. The researchers hope that the respondent will reveal their attitudes and thoughts through their actions and behaviour when placed in a different role-playing situation. This technique requires high amount of interpretive exercise as the respondent and response bias is continuously existent.

2.5 Conclusion

A research design is a framework or blueprint for conducting a marketing research project. It provides a clear plan of how the research should be conducted and helps researchers in sticking to the plan. Research designs can be broadly classified as exploratory and conclusive. Conclusive research designs are further classified as descriptive and causal. Exploratory research designs mostly use qualitative data collection techniques. Conclusive research designs mostly use quantitative data collection techniques. Therefore, many times these two terms are used interchangeably.

Desk research can play an important role in all stages of marketing research. Desk research generally deals with secondary data which is data collected for different purposes by other researchers. There are various sources within the marketplace to obtain secondary data and such data collection is relatively inexpensive in comparison to primary data collection. Primary data collection requires researchers to get directly involved in the data collection process for the issue at hand.

Exploratory research design involves many qualitative data collection techniques such as in-depth interviews, focus groups and projective techniques. In-depth interviews are one-to-one interviews with respondents while focus group involves a group of 6 – 12 respondents in a congenial setting. Focus groups is one of the most popular qualitative research techniques. Projective techniques involve various psychological testing such as pictorial construction, word association tests, sentence completion tests and role plays. They are used in understanding the hidden associations in a consumer's mind. The qualitative data collection techniques provide a lot of rich information but at the same time is hard to interpret and involves limitation with regard to generalizability, reliability and validity.