

QUALITATIVE RESEARCH METHODS

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Sem-II

Qualitative Research

WHAT IS QUALITATIVE RESEARCH

Qualitative research is a market research method that focuses on obtaining data through open-ended and conversational communication. This method focuses on the “why” rather than the “what” people think about you.

Let’s say you have an online shop that addresses a general audience. You do a demographic analysis and you find out that most of your customers are male. Naturally, you will want to find out why women are not buying from you. And that’s what a qualitative research will help you find out.

Quantitative vs. qualitative research

Quantitative research is concerned with measurement and numbers, while qualitative research is concerned with understanding and words.

Quantitative research is used to quantify the problem. Its main goal is to generate numerical data or data that can be turned into statistics. It uses measurable data to formulate facts and uncover patterns in research. Quantitative data collection methods include various forms of surveys (online surveys, paper surveys, mobile surveys, kiosk surveys, etc.), face-to-face interviews, telephone interviews, longitudinal studies, website interceptors, online polls, and systematic observations.

On the other hand, qualitative research is used to gain an understanding of underlying reasons, opinions, and motivations. It provides insights into the problem or helps to develop ideas or hypotheses for potential quantitative research. Qualitative data collection methods include focus groups (group discussions), individual interviews, and participation/observation.

The statistical data of quantitative methods obtained from many people reveal a broad, generalizable set of findings. In contrast, qualitative methods produce a large amount of detailed information about a smaller number of people that results in rich understanding but reduces generalizability.

QUALITATIVE RESEARCH METHODOLOGY

Improve Customer Experience through Qualitative Research by asking for feedback at each key point in the user journey. Be user & customer centric.

Once the marketer has decided that their research questions will provide data that is qualitative in nature, the next step is to choose the appropriate qualitative approach. The approach chosen will take into account the purpose of the research, the role of the researcher, the data collected, method of data analysis and how the results will be presented. The most common approaches include:

- Narrative: explores the life of an individual, tells their story;
- Phenomenology: attempts to understand or explain life experiences or phenomena;
- Grounded theory: investigates the process, action, or interaction with the goal of developing a theory “grounded” in observations;
- Ethnography: describes and interprets an ethnic, cultural, or social group;
- Case study: examines episodic events in a definable framework, develops in-depth analyses of single or multiple cases, generally explains “how”.

TYPES OF QUALITATIVE RESEARCH METHODS

Qualitative research methods are designed in a manner that they help reveal the behavior and perception of a target audience regarding a particular topic. The most frequently used qualitative research methods are one-on-one interviews, focus groups, ethnographic research, case study research, record keeping, and qualitative observation.

1. One-on-one interviews

Conducting one-on-one interviews is one of the most common qualitative research methods. One of the advantages of this method is that it provides a great opportunity to gather precise data about what people think and their motivations.

These interviews can be performed face-to-face or on the phone and usually last between half an hour and two hours or more. When a one-on-one interview is conducted face-to-face, it also gives the marketer the opportunity to read the body language of the respondent and match the responses.

2. Focus groups

Focus groups are another commonly used qualitative research method. The ideal size of a focus group is usually between five and eight participants. If the topic is of minor concern to

participants, and if they have little experience with the topic, then a group size of 10 could be productive. But, as the topic becomes more important, if people have more expertise on the topic, or if they are likely to have strong feelings about the topic, then the group size should be restricted to five or six people.

The main goal of a focus group is to find answers to the “why”, “what”, and “how” questions. One advantage that focus groups have is that the marketer doesn’t necessarily have to interact with the group in person. Nowadays focus groups can be sent as online surveys on various devices.

Focus groups are an expensive option compared to the other qualitative research methods, which is why they are typically used to explain complex processes. Focus groups are especially useful when it comes to market research on new products and testing new concepts.

3. Ethnographic research

Ethnographic research is the most in-depth observational method that studies individuals in their naturally occurring environment. This method aims at understanding the cultures, challenges, motivations, and settings that occur. Ethnographic research requires the marketer to adapt to the target audiences’ environments (a different organization, a different city, or even a remote location), which is why geographical constraints can be an issue while collecting data.

This type of research can last from a few days to a few years. It’s challenging and time-consuming and solely depends on the expertise of the marketer to be able to analyze, observe, and infer the data.

4. Case study research

The case study method has grown into a valuable qualitative research method. This type of research method is usually used in education or social sciences. Case study research may seem difficult to operate, but it’s actually one of the simplest ways of conducting research as it involves a deep dive and thorough understanding of the data collection methods and inferring the data.

5. Record keeping

Record keeping is similar to going to the library: you go over books or any other reference material to collect relevant data. This method uses already existing reliable documents and similar sources of information as a data source.

6. Qualitative observation

Qualitative observation is a method that uses subjective methodologies to gather systematic information or data. This method deals with the five major sensory organs and their functioning, sight, smell, touch, taste, and hearing. Qualitative observation doesn’t involve measurements or numbers but instead characteristics.

The Pros & Cons of the Qualitative approach

By its nature, qualitative research is far more experiential and focussed on capturing people's feeling and views. This undoubtedly has value, but it can also bring many more challenges than those simply capturing quantitative data. Here are a few challenges and benefits to consider.

ADVANTAGES

1. Qualitative Research can capture changing attitudes within a target group such as consumers of a product or service, or attitudes in the workplace.
2. Qualitative approaches to research are not bound by the limitations of quantitative methods. If responses don't fit the researcher's expectation that's equally useful qualitative data to add context and perhaps explain something which numbers alone are unable to reveal.
3. Qualitative Research provides a much more flexible approach. If useful insights are not being captured researchers can quickly adapt questions, change the setting or any other variable to improve responses.
4. Qualitative data capture allows researchers to be far more speculative about what areas they choose to investigate and how to do so. It allows data capture to be prompted by a researcher's instinctive or 'gut feel' for where good information will be found.

Qualitative research can be more targeted. If you want to compare productivity across an entire organization, all parts, process, and participants need to be accounted for. Qualitative research can be far more concentrated, sampling specific groups and key points in a company to gather meaningful data. This can both speed the process of data capture and keep the costs of data-gathering down.

DISADVANTAGES

1. Sample size can be a big issue. If you seek to infer from a sample of, for example, 200 employees, based upon a sample of 5 employees, this raises the question of whether sampling will provide a true reflection of the views of the remaining 97.5% of the company?
2. Sample bias – HR departments will have competing agendas. One argument against qualitative methods alone is that HR tasked with finding the views of the workforce may be influenced both consciously or unconsciously, to select a sample that favors an anticipated outcome.
3. Self-selection bias may arise where companies ask staff to volunteer their views. Whether in a paper, online survey or focus group, if an HR department calls for participants there will be the issue of staff putting themselves forward. The argument goes that this group, in self-selecting itself, rather than being a randomly selected snapshot of a department, will inevitably have

narrowed its relevance to those that typically are willing to come forward with their views. Quantitative data is gathered whether someone volunteered or not.

4. The artificiality of qualitative data capture. The act of bringing together a group is inevitably outside of the typical 'norms' of everyday work life and culture and may influence the participants in unforeseen ways.

5. Are the right questions being posed to participants? You can only get answers to questions you think to ask. In qualitative approaches, asking about "how" and "why" can be hugely informative, but if researchers don't ask, that insight may be missed.

LIMITATIONS OF QUALITATIVE RESEARCH

The disadvantages of qualitative research are quite unique. The techniques of the data collector and their own unique observations can alter the information in subtle ways. That being said, these are the qualitative research' limitations:

1. It's a time-consuming process

The main drawback of qualitative research is that the process is time-consuming. Another problem is that the interpretations are limited. Personal experience and knowledge influence observations and conclusions.

Thus, a qualitative research might take several weeks or months. Also, since this process delves into personal interaction for data collection, discussions often tend to deviate from the main issue to be studied.

2. You can't verify the results of qualitative research

Because qualitative research is open-ended, participants have more control over the content of the data collected. So the marketer is not able to verify the results objectively against the scenarios stated by the respondents.

3. It's a labor-intensive approach

Qualitative research requires a labor-intensive analysis process such as categorization, recoding, etc. Similarly, qualitative research requires well-experienced marketers to obtain the needed data from a group of respondents.

4. It's difficult to investigate causality

Qualitative research requires thoughtful planning to ensure the obtained results are accurate. There is no way to analyze qualitative data mathematically. This type of research is based more on opinion and judgment rather than results. Because all qualitative studies are unique they are difficult to replicate.

5. Qualitative research is not statistically representative

Because qualitative research is a perspective-based method of research, the responses given are not measured. Comparisons can be made and this can lead toward duplication, but for the most part, quantitative data is required for circumstances which need statistical representation and that is not part of the qualitative research process.

While doing a qualitative research, it's important to cross-reference the data obtained with the quantitative data. By continuously surveying prospects and customers marketers can build a stronger database of useful information.

CHARACTERISTICS OF QUALITATIVE RESEARCH

Below are the three key elements that define a qualitative research study and the applied forms each take in the investigation of a research problem.

The Design

- Naturalistic -- refers to studying real-world situations as they unfold naturally; nonmanipulative and noncontrolling; the researcher is open to whatever emerges [i.e., there is a lack of predetermined constraints on findings].
- Emergent -- acceptance of adapting inquiry as understanding deepens and/or situations change; the researcher avoids rigid designs that eliminate responding to opportunities to pursue new paths of discovery as they emerge.
- Purposeful -- cases for study [e.g., people, organizations, communities, cultures, events, critical incidences] are selected because they are "information rich" and illuminative. That is, they offer useful manifestations of the phenomenon of interest; sampling is aimed at insight about the phenomenon, not empirical generalization derived from a sample and applied to a population.

The Collection of Data

- Data -- observations yield a detailed, "thick description" [in-depth understanding]; interviews capture direct quotations about people's personal perspectives and lived experiences; often derived from carefully conducted case studies and review of material culture.
- Personal experience and engagement -- researcher has direct contact with and gets close to the people, situation, and phenomenon under investigation; the researcher's personal experiences and insights are an important part of the inquiry and critical to understanding the phenomenon.
- Empathic neutrality -- an empathic stance in working with study respondents seeks vicarious understanding without judgment [neutrality] by showing openness, sensitivity, respect, awareness, and responsiveness; in observation, it means being fully present [mindfulness].

- Dynamic systems -- there is attention to process; assumes change is ongoing, whether the focus is on an individual, an organization, a community, or an entire culture, therefore, the researcher is mindful of and attentive to system and situational dynamics.

The Analysis

- Unique case orientation -- assumes that each case is special and unique; the first level of analysis is being true to, respecting, and capturing the details of the individual cases being studied; cross-case analysis follows from and depends upon the quality of individual case studies.
- Inductive analysis -- immersion in the details and specifics of the data to discover important patterns, themes, and inter-relationships; begins by exploring, then confirming findings, guided by analytical principles rather than rules.
- Holistic perspective -- the whole phenomenon under study is understood as a complex system that is more than the sum of its parts; the focus is on complex interdependencies and system dynamics that cannot be reduced in any meaningful way to linear, cause and effect relationships and/or a few discrete variables.
- Context sensitive -- places findings in a social, historical, and temporal context; researcher is careful about [even dubious of] the possibility or meaningfulness of generalizations across time and space; emphasizes careful comparative case analyses and extrapolating patterns for possible transferability and adaptation in new settings.
- Voice, perspective, and reflexivity -- the qualitative methodologist owns and is reflective about her or his own voice and perspective; a credible voice conveys authenticity and trustworthiness; complete objectivity being impossible and pure subjectivity undermining credibility, the researcher's focus reflects a balance between understanding and depicting the world authentically in all its complexity and of being self-analytical, politically aware, and reflexive in consciousness.

ETHICS IN QUALITATIVE RESEARCH

- Some important ethical concerns that should be taken into account while carrying out qualitative research are: anonymity, confidentiality and informed consent (22). ... The researcher must endeavor to minimize the possibility of intrusion into the autonomy of study participants by all means.

What are the five ethics of research?

Each of these basic principles of research ethics is discussed in turn:

- Principle One: Minimising the risk of harm.
- Principle Two: Obtaining informed consent.

- Principle Three: Protecting anonymity and confidentiality.
- Principle Four: Avoiding deceptive practices.
- Principle Five: Providing the right to withdraw.

RELATIONSHIP BETWEEN QUALITATIVE AND QUANTITATIVE RESEARCH?

Qualitative Research is primarily exploratory research. It is used to gain an understanding of underlying reasons, opinions, and motivations. It provides insights into the problem or helps to develop ideas or hypotheses for potential quantitative research

Quantitative data are measures of values or counts and are expressed as numbers. Quantitative data are data about numeric variables (e.g. how many; how much; or how often). Qualitative data are measures of 'types' and may be represented by a name, symbol, or a number code.

II. Uses of Mixed Methods Research Designs

1. Validate findings using quantitative and qualitative data sources. ...
2. Use qualitative data to explore quantitative findings. ...
3. Develop survey instruments. ...
4. Use qualitative data to augment a quantitative outcomes study. ...
5. Involve community-based stakeholders.

CAN QUALITATIVE AND QUANTITATIVE METHODS BE USED TOGETHER?

Yes, as a mixed method approach you may use both qualitative and quantitative; however, mixed method should be viewed as a single method that uses both qualitative and quantitative versus two separate studies - one qualitative and one quantitative.

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Using a combination of qualitative and quantitative data

Using a combination of qualitative and quantitative data can improve an evaluation by ensuring that the limitations of one type of data are balanced by the strengths of another. This will ensure that understanding is improved by integrating different ways of knowing. as a mixed method

approach you may use both qualitative and quantitative; however, mixed method should be viewed as a single method that uses both qualitative and quantitative versus two separate studies - one qualitative and one quantitative.

COMBINING QUALITATIVE AND QUANTITATIVE METHODS IN SOCIAL INQUIRY

The early roots of mixed-method social inquiry are found partly in the construct of triangulation, which involves the use of multiple methods – each representing a different perspective or lens – to assess a given phenomenon in order to enhance confidence in the validity of the findings. If, for example, data from a self-report instrument and data from an external observation converge, the overall results are more likely to be valid, credible and warranted. Interestingly, triangulation has an honoured history in multiple methodological traditions.

TRIANGULATION

Triangulation is a method whereby data from at least three different perspectives (for example, teacher, students and observer) are collected on the same issue/event so that they can be cross-validated. Alternatively, three or more different kinds of data (for example video, interview and questionnaire) are collected on the same issue/event and used to shed light on each other.

Qualitative Research Design

Basic Qualitative Research Design

The design of qualitative research is a general way of thinking about conducting qualitative research. It describes, either explicitly or implicitly, the purpose of the qualitative research, the role of the researcher(s), the stages of research, and the method of data analysis. A qualitative research design is probably the most flexible of the various experimental techniques, encompassing a variety of accepted methods and structures. Here, four of the major qualitative research designs namely phenomenology, ethnography, grounded theory and case study are introduced.

Types of qualitative research designs

Case Study Method

The purpose of the case study method is to obtain information from one or a few situations that are similar to the researcher's problem situation. For example, a bank in India may intensively investigate the computer-security activities of an innovative bank in Delhi. An academic researcher interested in doing a nationwide survey among union workers-may first look at a few union locals to identify the nature of any problems or topics that should be investigated.

Conducting a case study often requires the cooperation of the person whose history is being studied for example, a franchisee who allows the franchiser access to the former's records and

reports. Again, intensive interviews or long discussions with the franchisee and his or her employees may provide an understanding of a complex situation. Researchers, however, have no standard procedures to follow. They must be flexible and attempt to glean information and insights wherever they find them. The freedom to search for whatever data an investigator deems important makes the success of any case study highly dependent on the alertness, creativity, intelligence, and motivation of the individual performing the case analysis. Like all exploratory research, the results from case analysis should be seen as tentative. Generalizing from a few cases can be dangerous because most situations are atypical in some sense. A bank in Montana may not be in a situation comparable to one in California. But even if situations are not directly comparable, a number of insights can be gained and hypotheses suggested for future research.

Comparative study

Comparative study is used to determine and quantify relationships between two or more variables by observing different groups that either by choice or circumstances is exposed to different treatments. Comparative study looks at two or more similar groups, individuals, or conditions by comparing them.

Comparative research is a research methodology in the social sciences that aims to make comparisons across different countries or cultures. A major problem in comparative research is that the data sets in different countries may define categories differently or may not use the same categories.

Prospective Study

A prospective study watches for outcomes, such as the development of a disease, during the study period and relates this to other factors such as suspected risk or protection factor(s). The study usually involves taking a cohort of subjects and watching them over a long period. The outcome of interest should be common; otherwise, the number of outcomes observed will be too small to be statistically meaningful (indistinguishable from those that may have arisen by chance). All efforts should be made to avoid sources of bias such as the loss of individuals to follow up during the study. Prospective studies usually have fewer potential sources of bias and confounding than retrospective studies.

Retrospective Study

A retrospective study looks backwards and examines exposures to suspected risk or protection factors in relation to an outcome that is established at the start of the study. Many valuable case-control studies, such as Lane and Claypon's 1926 investigation of risk factors for breast cancer, were retrospective investigations. Most sources of error due to confounding and bias are more common in retrospective studies than in prospective studies. For this reason, retrospective investigations are often criticised. If the outcome of interest is uncommon, however, the size of

prospective investigation required to estimate relative risk is often too large to be feasible. In retrospective studies the odds ratio provides an estimate of relative risk. You should take special care to avoid sources of [bias](#) and [confounding](#) in retrospective studies.

Prospective investigation is required to make precise estimates of either the incidence of an outcome or the relative risk of an outcome based on exposure.

longitudinal Study

A longitudinal study is an observational research method in which data is gathered for the same subjects repeatedly over a period of time. Longitudinal research projects can extend over years or even decades. In a longitudinal cohort study, the same individuals are observed over the study period.

Combined, longitudinal qualitative research endeavors to understand how people successively make meaning about the trajectories of their lives, or specific conditions of their lives, by following them through time. ... It is also a key to understanding how people experience and respond to developmental change.

Theoretical sampling

Theoretical sampling is a process of data collection for generating theory whereby the analyst jointly collects codes and analyses data and decides what data to collect next and where to find them, in order to develop a theory as it emerges. Just as with purposeful (or purposive) qualitative sampling, theoretical sampling involves selecting participants based on specific characteristics. ... In grounded theory studies,

The Principles of Qualitative Approach

Researchers should understand in depth the fundamental principles of the methodology of qualitative research in order to conduct studies with low bias. Data collection methods in qualitative research include observation, interviews, focus groups and the Delphi method.

A popular and helpful categorization separate qualitative methods into five groups: ethnography, narrative, phenomenological, grounded theory, and case study.

- Narrative: explores the life of an individual, tells their story;
- Phenomenology: attempts to understand or explain life experiences or phenomena;
- Grounded theory: investigates the process, action, or interaction with the goal of developing a theory “grounded” in observations;
- Ethnography: describes and interprets an ethnic, cultural, or social group;

- Case study: examines episodic events in a definable framework, develops in-depth analyses of single or multiple cases, generally explains “how”.

Sampling Design

A sampling design is a definite plan for obtaining a sample from a given population. It refers to the technique or the procedure the researcher would adopt in selecting items for the sample. Sampling design is determined before any data are collected. While developing a sampling strategy, the researcher must pay attention to the following points:

- i) The first step in developing any sample design is to clearly define the population to be sampled.
- ii) A decision has to be taken concerning a sampling unit before selecting sample. Sampling unit may be of some geographical area such as a state, district, village, etc., or construction units such as house, flat, etc. It may be a social unit such as family, club, school, etc., or an individual.
- iii) Frame should be comprehensive, correct, reliable and appropriate. It is extremely important for the frame to be as representative of the population as possible.
- iv) The size of sample should neither be excessively large, nor too small. It should be optimum. An optimum sample is one which fulfils the requirements of efficiency, representativeness, reliability and flexibility.
- v) In determining the sample design, one must take into consideration the specific population parameters, which are of interest.
- vi) Cost considerations, from practical point of view, have a major, impact upon decisions relating to not only the size of the sample but also to the sample design. Cost constraint can even lead to the use of a non-probability sample.

Criteria of Selecting a Sampling Procedure

In this context one must remember that two costs are involved in a sampling analysis viz., the cost of collecting the data and the cost of an incorrect inference resulting from the data. Researcher must keep in view the two causes of incorrect inferences viz., systematic bias and sampling error.

A systematic bias results from errors in the sampling procedures, and it cannot be reduced or eliminated by increasing the sample size. At best the causes responsible for these errors can be detected and corrected. Usually a systematic bias is the result of one or more of the following factors:

1. Inappropriate sampling frame: If the sampling frame is inappropriate i.e., a biased representation of the universe, it will result in a systematic bias.

2. Defective measuring device: If the measuring device is constantly in error, it will result in systematic bias. In survey work, systematic bias can result if the questionnaire or the interviewer is biased. Similarly, if the physical measuring device is defective there will be systematic bias in the data collected through such a measuring device.
3. Non-respondents: If we are unable to sample all the individuals initially included in the sample, there may arise a systematic bias. The reason is that in such a situation the likelihood of establishing contact or receiving a response from an individual is often correlated with the measure of what is to be estimated.
4. Indeterminacy principle: Sometimes we find that individuals act differently when kept under observation than what they do when kept in non-observed situations. For instance, if workers are aware that somebody is observing them in course of a work study on the basis of which the average length of time to complete a task will be determined and accordingly the quota will be set for piece work, they generally tend to work slowly in comparison to the speed with which they work if kept unobserved. Thus, the indeterminacy principle may also be a cause of a systematic bias.
5. Natural bias in the reporting of data: Natural bias of respondents in the reporting of data is often the cause of a systematic bias in many inquiries. There is usually a downward bias in the income data collected by government taxation department, whereas we find an upward bias in the income data collected by some social organisation. People in general understate their incomes if asked about it for tax purposes, but they overstate the same if asked for social status or their affluence.

Generally in psychological surveys, people tend to give what they think is the 'correct' answer rather than revealing their true feelings.

Sampling errors are the random variations in the sample estimates around the true population parameters. Since they occur randomly and are equally likely to be in either direction, their nature happens to be of compensatory type and the expected value of such errors happens to be equal to zero. Sampling error decreases with the increase in the size of the sample, and it happens to be of a smaller magnitude in case of homogeneous population.

Sampling error can be measured for a given sample design and size. The measurement of sampling error is usually called the 'precision of the sampling plan'. If we increase the sample size, the precision can be improved. But increasing the size of the sample has its own limitations viz., a large sized sample increases the cost of collecting data and also enhances the systematic bias.

Thus the effective way to increase precision is usually to select a better sampling design which has a smaller sampling error for a given sample size at a given cost. In practice, however, people prefer

a less precise design because it is easier to adopt the same and also because of the fact that systematic bias can be controlled in a better way in such a design.

In brief, while selecting a sampling procedure, researcher must ensure that the procedure causes a relatively small sampling error and helps to control the systematic bias in a better way.

Characteristics of a Good Sample Design

From what has been stated above, we can list down the characteristics of a good sample design as under:

- (a) Sample design must result in a truly representative sample.
- (b) Sample design must be such which results in a small sampling error.
- (c) Sample design must be viable in the context of funds available for the research study.
- (d) Sample design must be such so that systematic bias can be controlled in a better way.
- (e) Sample should be such that the results of the sample study can be applied, in general, for the universe with a reasonable level of confidence.

Different Types of Sample Designs

Sample designs are basically of two types viz., non-probability sampling and probability sampling.

Probability sampling: Probability sampling is also known as 'random sampling' or 'chance sampling'. Under this sampling design, every item of the universe has an equal chance of inclusion in the sample.

Non-probability sampling is defined as a sampling technique in which the researcher selects samples based on the subjective judgment of the researcher rather than random selection. It is a less stringent method.

Types of Probability sampling:

Random Sampling

The simplest of the methods of probability sampling is known as the method of simple random sampling, often known as the method of random sampling. In this method an equal probability of selection is assigned to each available unit of the population at the first and each subsequent draw.

(i) **Systematic sampling:** In some instances, the most practical way of sampling is to select every i th item on a list. Sampling of this type is known as systematic sampling. An element of randomness is introduced into this kind of sampling by using random numbers to pick up the unit with which to start. For instance, if a 4 per cent sample is desired, the first item would be selected randomly from the first twenty-five and thereafter every 25th item would automatically be included in the sample. Thus, in systematic sampling only the first unit is selected randomly and the remaining units of the sample are selected at fixed intervals. Although a systematic sample is not a random sample in the strict sense of the term, but it is often considered reasonable to treat systematic sample as if it were a random sample.

(ii) **Stratified sampling:** If a population from which a sample is to be drawn does not constitute a homogeneous group, stratified sampling technique is generally applied in order to obtain a representative sample. Under stratified sampling the population is divided into several sub-populations that are individually more homogeneous than the total population (the different sub-populations are called 'strata') and then we select items from each stratum to constitute a sample. Since each stratum is more homogeneous than the total population, we are able to get more precise estimates for each stratum and by estimating more accurately each of the component parts, we get a better estimate of the whole. In brief, stratified sampling results in more reliable and detailed information.

(iii) **Cluster sampling:** If the total area of interest happens to be a big one, a convenient way in which a sample can be taken is to divide the area into a number of smaller non-overlapping areas and then to randomly select a number of these smaller areas (usually called clusters), with the ultimate sample consisting of all (or samples of) units in these small areas or clusters. Thus in cluster sampling the total population is divided into a number of relatively small subdivisions which are themselves clusters of still smaller units and then some of these clusters are randomly selected for inclusion in the overall sample.

Types of Non-Probability Sampling:

Purposive sampling,

Purposive sampling, also known as judgmental, selective, or subjective sampling, is a form of non-probability sampling in which researchers rely on their own judgment when choosing members of the population to participate in their study.

In other words, under non-probability sampling the organisers of the inquiry purposively choose the particular units of the universe for constituting a sample on the basis that the small mass that they so select out of a huge one will be typical or representative of the whole. For instance, if economic conditions of people living in a state are to be studied, a few towns and villages may be purposively selected for intensive study on the principle that they can be representative of the entire state.

Thus, the judgement of the organisers of the study plays an important part in this sampling design. In such a design, personal element has a great chance of entering into the selection of the sample. The investigator may select a sample which shall yield results favourable to his point of view and if that happens, the entire inquiry may get vitiated. Thus, there is always the danger of bias entering into this type of sampling technique. But in the investigators are impartial, work without bias and have the necessary experience so as to take sound judgement, the results obtained from an analysis of deliberately selected sample may be tolerably reliable. However, in such a sampling, there is no assurance that every element has some specifiable chance of being included. Sampling error in this type of sampling cannot be estimated and the element of bias, great or small, is always there. As such this sampling design is rarely adopted in large inquiries of importance. However, in small inquiries and researches by individuals, this design may be adopted because of the relative advantage of time and money inherent in this method of sampling.

Quota sampling is also an example of non-probability sampling. Under quota sampling the interviewers are simply given quotas to be filled from the different strata, with some restrictions on how they are to be filled. In other words, the actual selection of the items for the sample is left to the interviewer's discretion. This type of sampling is very convenient and is relatively inexpensive. But the samples so selected certainly do not possess the characteristic of random samples. Quota samples are essentially judgement samples and inferences drawn on their basis are not amenable to statistical treatment in a formal way the form of groups, composed of smaller units.

Quota sampling is a method of sampling widely used in opinion poll surveys and market research. The quota sampling starts with the idea that a sample should be well spread geographically over the population and that it should contain the same fraction of individuals having a certain characteristics, as does the population. In this technique the population is divided into a number of strata whose weights are obtained from a recent census or a large-scale survey. Interviewers are then assigned quotas for the number of interviews to be taken from each stratum.

Convenience Sampling: as the name suggests, this involves collecting a sample from somewhere convenient to you: the mall, your local school, your church. Sometimes called accidental sampling, opportunity sampling or grab sampling.

How to select a random sample?

With regard to the question of how to take a random sample in actual practice, we could, in simple cases like the one above, write each of the possible samples on a slip of paper, mix these slips thoroughly in a container and then draw as a lottery either blindfolded or by rotating a drum or by any other similar device. Such a procedure is obviously impractical, if not altogether impossible in complex problems of sampling.

In fact, the practical utility of such a method is very much limited.

Fortunately, we can take a random sample in a relatively easier way without taking the trouble of enlisting all possible samples on paper-slips as explained above. Instead of this, we can write the name of each element of a finite population on a slip of paper, put the slips of paper so prepared into a box or a bag and mix them thoroughly and then draw (without looking) the required number of slips for the sample one after the other without replacement. In doing so we must make sure that in successive drawings each of the remaining elements of the population has the same chance of being selected.

This procedure will also result in the same probability for each possible sample. We can verify this by taking the above example. Since we have a finite population of 6 elements and we want to select a sample of size 3, the probability of drawing any one element for our sample in the first draw is $3/6$, the probability of drawing one more element in the second draw is $2/5$, (the first element drawn is not replaced) and similarly the probability of drawing one more element in the third draw is $1/4$. Since these draws are independent, the joint probability of the three elements which constitute our sample is the product of their individual probabilities and this works out to $3/6 \times 2/5 \times 1/4 = 1/20$. This verifies our earlier calculation.

Saturation

Saturation denotes the point in the research process when no new concepts or further properties or dimensions of existing concepts emerge from data. Although some additional properties and dimensions may continue to be found, as a general rule, when the researcher reaches a point when the data seem repetitive, one might say that saturation has occurred. Some researchers continue data collection until they discover the 'negative case'. If one thinks in terms of concepts and dimensional ranges rather than cases, the negative example represents an extreme point on a dimensional range of a concept. It does not necessarily contradict the theory but adds to its breadth by expanding its possibilities. For example, in studying control, if an example emerges where little or no control seems to be exerted this does not invalidate the notion of control but only leads one to ask, why or how come in this instance it is absent. This constant questioning of incoming findings is how theory is modified and extended.

Qualitative Research Methods

Focused Interview

Focused (Semi-structured) Interviews. In this method Interviewer focuses attention upon a given experience and its effects. This technique is used to collect qualitative data by setting up a situation (the interview) that allows a respondent the time and scope to talk about their opinions on a particular subject.

Focus Group Interview

Focus group interview is a tool for qualitative market research where a group of people are selected and asked about their opinion or perceptions about a particular topic. The environment is interactive where the participants are free to discuss with each other.

The focus group interview is a more elaborate exploratory pilot study. Increasingly popular in recent years, the focus group gathers six to ten people for a group dynamics session. This loosely structured

discussion assumes that individuals are more willing to share their ideas as they share in the ideas of others. Qualitative information obtained in these studies serves as a basis for subsequent quantitative study.

For example, the Philadelphia Museum used focus groups to investigate how well its exhibits and shows catered to the public. A local resident who had never visited the museum mentioned that he was not aware of any important artwork there. Another participant in the same focus group voiced the opinion that the museum would be filled with “pictures I would not understand ... I’ve seen art where it looked like kids splashed paint”. These findings (confirmed by other research) influenced the museum to reinstate an image of van Gogh’s sunflowers on the cover of its brochures.

Since the purposes of exploratory research are to gain insights and to discover new ideas, researchers may use considerable creativity and flexibility. It is common to collect data with se

Semi-structured interview

A semi-structured interview is a method of research used most often in the social sciences. While a structured interview has a rigorous set of questions which does not allow one to divert, a semi-structured

A semi-structured interview is a meeting in which the interviewer does not strictly follow a formalized list of questions. They will ask more open-ended questions, allowing for a discussion with the interviewee rather than a straightforward question and answer format.

The semi-structured interview is a qualitative data collection strategy in which the researcher asks informants a series of predetermined but open-ended questions. Researchers who use semi-structured interviewing develop a written interview guide in advance.

Problem-centered interview

The problem-centered interview (PZI) is a theory-generating method that tries to neutralize the alleged contradiction between being directed by theory or being open-minded so that the interplay of inductive and deductive thinking contributes to increasing the user's knowledge.

Non-participant and participants observation

A non-participant observation is one where the researcher chooses not to play any part in what is being observed. An advantage of this is that it allows for a more objective view of what is occurring.

A research technique whereby the researcher watches the subjects of his or her study, with their knowledge, but without taking an active part in the situation under scrutiny. ... To overcome this, researchers normally observe a number of similar situations, over a period of time.

Participant observation means the presence of the researcher in the field interacting with people and local events (this interaction can have multiple zoom levels).

Participant observation is one type of data collection method by practitioner-scholars typically used in qualitative research and ethnography. This type of methodology is employed in many disciplines, particularly anthropology, sociology, communication studies, human geography, and social psychology.

ETHNOGRAPHY

Ethnographic research is a qualitative method where researchers observe and/or interact with a study's participants in their real-life environment. Ethnography was popularised by anthropology, but is used across a wide range of social sciences.

Definition:

Wolcott (1999) defines ethnography as a description of “the customary social behaviors of an identifiable group of people”. Ethnography is often referred to as “culture writing,” and it refers to a type of documentation often employed by Anthropologists in their field work.

Ethnography was a term originally used (in anthropology) to mean the study of the institutions and customs in small, well-defined communities in societies with little technological advance.

The purpose of ethnographic research is to attempt to understand what is happening naturally in the setting and to interpret the data gathered to see what implications could be formed from the data. Ethnographic research is also known as qualitative research.

The social science that studies the origins and social relationships of human beings is known as anthropology. Ethnography is a branch of anthropology that provides scientific description of individual human societies. The term means “portrait of a people” and it is a methodology for descriptive studies of cultures and peoples. According to Van Maanen, "ethnography fieldwork usually means living with and living like those who are studied. In its broadest, most conventional sense, fieldwork demands the full-time involvement of a researcher over a lengthy period of time (typically unspecified) and consists mostly of ongoing interaction with the human targets of study on their home ground".

GROUNDING THEORY

Grounding theory is a systematic methodology in the social sciences involving the construction of theories through methodical gathering and analysis of data. This research methodology uses inductive reasoning, in contrast to the hypothetico-deductive model of the scientific method.

Grounding theory involves the collection and analysis of data. The theory is “grounded” in actual data, which means the analysis and development of theories happens after you have collected the data. It was introduced by Glaser & Strauss in 1967 to legitimize qualitative research.

Grounding theory is a theory generating research methodology. The end product of the research endeavour is not a set of findings or a few themes. Rather it is an integrated theoretical formulation that gives understanding about how persons or organizations or communities experience and respond to events that occur. Before going further, it is important to define what is meant by theory. In simple language, a theory is a set of concepts that are integrated through a series of relational statements (Hage, 1972).

Since the purpose of the research is to generate theory, the user of grounding theory method does not enter the field guided by a predefined theoretical formulation, though a researcher may have an underlying general perspective or belief system, such as feminism or symbolic interactionism. These perspectives often influence the questions that are raised and the take on analysis. Any theory that results from such a process represents participants’ responses and interpretation of events (which when retold by participants’ become reconstructions of actual events). As data the reconstructions are filtered once more through the eyes of the researcher who then constructs a theoretical formulation. The formulation may then be brought back to participants for validation of interpretations. Thus one might say that the theory is not only a reconstruction of events, but also a co-construction between researcher and participants.