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USE OF SURVEY RESEARCH IN POLITICAL SCIENCE

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Abstract

Survey research which is a critical component of measurement and applied social research is the most widely used method of empirical research in political science and other social sciences. It is a broad area of research that encompasses many procedures that involve asking questions to specific respondents. In this article an attempt is made to explain the meaning, importance, history and characteristics of survey research. Survey research is a useful and legitimate approach to research that has clear benefits in helping to describe and explore variables and constructs of interest. Survey research, like all research, has the potential for a variety of sources of error, but several strategies indeed exist to reduce the potential for error.

Keywords

Survey research, Political science, Political Surveys, Society, Innovations, Opinion polls, Benchmark polls, Brushfire polls, Tracking polls

Importance of survey research

Surveys are useful in describing the characteristics of a large population. No other research method can provide this broad capability, which ensures a more accurate sample to gather targeted results in which to draw conclusions and make important decisions. Surveys can help gauge the representativeness of individual views and experiences. When done well, surveys provide hard numbers on people's opinions and behaviors that can be used to make important decisions.

Survey research is a useful and legitimate approach to research that has clear benefits in helping to describe and explore variables and constructs of interest. Survey research, like all research, has the potential for a variety of sources of error, but several strategies indeed exist to reduce the potential for error.

Advantages and limitations of survey research

There are several advantages and disadvantages of survey research and hence knowing each of them is necessary to determine if there is value in using the survey research method for your research work or project.

Advantages: It is an inexpensive method of conducting research: Surveys are one of the most inexpensive methods of gathering quantitative data that is currently available. Some questionnaires can be self-administered, making it a possibility to avoid in-person interviews. That means you have access to a massive level of information from a large demographic cluster in a relatively short time. You can place this option on your website, email it to individuals, or post it on social media profile. Some of these methods have no financial cost at all, relying on personal efforts to post and collect the information. Correct targeting is necessary to ensure that the highest possible response rate becomes available to create a more accurate result.

1. **Practicality:** Surveys or a practical way to gather information about something specific. You can target them to a situation of your choice or manage them in several different ways. It is up to you to determine what questions get asked and in what format. You can use polls, questionnaires, quizzes, open-ended questions, and multiple-choice to collect information in real-time situations so that the feedback is immediately useful.

2. **Speed:** Surveys provide fast and comfortable results because of today's mobile and online tools. It is not unusual for this method of data collection to generate results in as little as one day, and sometimes it can be even less than that depending on the scale and reach of your questions. You no longer need to wait for another source of help to deliver the solutions that you need because these questionnaires give you insights immediately. That means you can start making decisions in the shortest amount of time possible.

3. **Scalability:** A well-constructed survey allows you to gather data from an audience of any size. You can distribute your questions to anyone in the world today because of the reach of the Internet. All you need to do is send them a link to the page where you solicit information from them. Pollsters can also use surveys as a way to create lead nurturing campaigns. Scientific

research gains a benefit through this process as well because it can generate social insights at a personal level that other methods are unable to achieve.

4. **Allowing data from multiple sources:** When you construct a survey instrument like a questionnaire or observation schedule to meet the needs of your research work, then you have the ability to use multiple data points collected from various geographic locations. There are fewer barriers in place today with this method than ever before because of the online access we have around the world. Some challenges do exist because of this benefit, namely because of the cultural differences that exist between different geographic regions.

5. **Comparison of results:** After researchers quantify the information collected from surveys, the data can be used to compare and contrast the results from other research efforts. This benefit makes it possible to use the information to measure change. That means a questionnaire that goes out every month, as for example in a time series study, it becomes more valuable over time. When you can gather a significant amount of data, then the picture you are trying to interpret will become much clearer. Surveys provide the capability of generating new strategies or identifying new trends to create more opportunities.

6. **Analysis and visualization of the data:** Most surveys are quantitative by design. This process allows for the advantage of a straightforward analysis process so that the results can be quickly visualized. That means a data scientist doesn't need to be available to start the work of interpreting the results. You can take advantage of third-party software tools that can turn this info into usable reports, charts, and tables to facilitate the presentation efforts.

7. **Anonymity of respondents:** If you choose to use online or email surveys, then there is a fantastic opportunity to allow respondents to remain anonymous. Complete invisibility is also possible with postal questionnaires, allowing researchers to maximize the levels of comfort available to the individuals who offer answers. Even a phone conversation doesn't require a face-to-face meeting, creating this unique benefit. When

people have confidence in the idea that their responses will not be directly associated with their reputation, then researchers have an opportunity to collect information with greater accuracy.

8. **Fewer time constraints:** Surveys have fewer time limits associated with them when compared to other research methods. There is no one on the other end of an email or postal questionnaire that wants an immediate answer. That means a respondent can take additional time to complete each answer in the most comfortable way possible. This benefit is another way to encourage more honesty within the results since having a researcher presence can often lead to socially desirable answers.

9. **Cover every component of a topic:** Another advantage that surveys provide is the scope to ask as many questions as one wants. There is a benefit in keeping an individual questionnaire short because a respondent may find a lengthy process to be frustrating. The best results typically come when you can create an experience that involves ten or fewer questions. Since this is a low-cost solution for gathering data, there is no harm in creating multiple surveys that have an easy mode of delivery. This benefit gives you the option to cover as many sub-topics as possible so that you can build a complete profile of almost any subject matter.

Problems and limitations

In spite of so many advantages listed above the survey research method is not without its disadvantages. The more important of such disadvantages or limitations are:

1. **There is always a risk that people will provide dishonest answers:** The risk of receiving a dishonest answer is lower when you use anonymous surveys, but it does not disappear entirely. Some people want to help researchers come to whatever specific conclusion they think the process is pursuing. There is also a level of social desirability bias that creeps into the data based on the interactions that respondents have with questionnaires. You can avoid some of this disadvantage by assuring individuals that their privacy is a top priority and that the process you use prevents personal information leakages.

2. **You might discover that some questions don not get answers:** If you decide to use a survey to gather information, then there is a risk that some questions will be left unanswered or ignored. If some questions are not required, then respondents might choose not to answer them. An easy way to get around this disadvantage is to use an online solution that makes answering questions a required component of each step. Then make sure that your survey stays short and to the point to avoid having people abandon the process altogether. Another way of overcoming the problem is to pre-test the questionnaire and omit questions that are difficult to elicit answers.

3. **There can be differences in how people understand the survey questions:** There can be a lot of information that gets lost in translation when researchers opt to use a survey instead of other research methods. When there is not someone available to explain a questionnaire entirely, then the results can be somewhat subjective. You must give everyone an opportunity to have some understanding of the process so that you can encourage accurate answers. It is not unusual to have respondents struggle to grasp the meaning of some questions, even though the text might seem clear to the people who created it. Whenever miscommunication is part of the survey process, the results will skew in unintended directions. The only way to avoid this problem is to make the questions as simple and clear as possible.

4. **Surveys struggle to convey emotions with the achievable results:** A survey does not do a good job of capturing a person's emotional response to the questions they counter. The only way to gather this information is to have an in-person interview with every respondent. Facial expressions and other forms of body language can add subtlety to a conversation that is not possible when someone is filling out an online questionnaire. Some researchers get stuck trying to interpret feelings in the data they receive. A sliding-scale response that includes various levels of agreement or disagreement can try to replicate the concept of emotion, but it is not quite the same as being in the same room as someone. Assertion and strength will always be better information-gathering tools than multiple-choice questions.

5. **Some answers can be challenging to classify:** Surveys produce a lot of data because of their nature. You can tabulate multiple-choice questions, graph

agreement or disagreement in specific areas, or create open-ended questions that can be challenging to analyse. Individualized answers can create a lot of useful information, but they can also provide you with data that cannot be quantified. If you incorporate several questions of this nature into a questionnaire, then it will take a long time to analyse what you received. It is advised that as far as possible only 10% of the questions on the survey should have an open-ended structure. If the questions are confusing or bothersome, then you might find that the information you must manually review is mostly meaningless.

6. **You must remove someone with a hidden agenda as soon as possible:** Respondent bias can be a problem in any type of research. Participants in your survey could have an interest in your study area. Others might find themselves being influenced to participate because of the subject material found in your questionnaire. These issues can lead to inaccurate data gathering because it generates an imbalance of respondents who either see the process as overly positive or negative. This disadvantage of survey research can be avoided by using effective pre-screening tools that use indirect questions that identify this bias.

7. **Surveys do not provide the same level of personalization:** Any research effort will feel impersonal unless you take the time to customize the process. Because the information you want to collect on a questionnaire is generic by nature, it can be challenging to generate any interest in this activity because there is no value promised to the respondent. Some people can be put off by the idea of filling out a generic form, leading them to abandon the process.

8. **Some respondents will choose answers before reading the questions:** Every researcher hopes that respondents will provide conscientious responses to the questions offered in a survey. The problem here is that there is no way to know if the person filling out the questionnaire really understood the content provided to them. You do not even have a guarantee that the individual read the question thoroughly before offering a response. There are times when answers are chosen before someone fully reads the question and all of the answers. Some respondents skip through questions or make instant choices without reading the content at all. Because you have no way to know

when this issue occurs, there will always be a measure of error in the collected data.

9. **Accessibility issues can impact some surveys:** A lack of accessibility is always a threat that researchers face when using surveys. This option might be unsuitable for individuals who have a visual or hearing impairment. Literacy is often necessary to complete this process. These issues should come under consideration during the planning stages of the research project to avoid this potential disadvantage.

10. **Survey fatigue can be a real issue that some respondents face:** There are two issues that crop up because of this disadvantage. The first problem occurs before someone even encounters your questionnaire. Because they feel overwhelmed by the growing number of requests for information, a respondent is automatically less inclined to participate in a research project. That results in a lower overall response rate.

11. **Problem of fatigue:** Then there is the problem of fatigue that happens while taking a survey. This issue occurs when someone feels like the questionnaire is too long or contains questions that seem irrelevant. You can tell when this problem happens because a low completion rate is the result. Try to make the process as easy as possible to avoid the issues with this disadvantage.

Uses of survey research in political science

Survey research is a major tool for bringing facts or data to bear on studies on political phenomena. The way in which survey researchers do so, by collecting data from the few to generalize to the many, is once again undergoing a period of profound change. In the past two decades survey research has shifted from a reliance on face-to-face interviewing in respondent homes during the 1970s to the cheaper and faster world of telephone surveying in the 1980s and 1990s. Today, as the 21st century has reached its third decade, this transition toward a technology-mediated experience of the survey interview continues. The revolution in digital communications technology has brought about even bigger changes, from the steady replacement of landlines with cellular phones to the expansion and habitual reliance of an ever-larger number of people on the Internet. And although survey researchers have dealt with public skepticism of polling and a refusal to participate

before, today it is higher than ever. Nevertheless, survey research has always been an investigative tool shifting with the prevailing social trends. In fact, the study of survey research has become a scientific discipline of its own.

Trends in survey research in political science

The book entitled"21st Century Political Science: A Reference Handbook" takes stock of four of the most important changes and sources of continuity in survey research in contemporary times. They are as follows:

First, cellular telephone ownership has increased the number of households without a landline telephone, disrupting the traditional methodology for telephone surveys.

Second, the web survey is already a major mode of survey research, and given the spread of broadband Internet access, its methodology will continue to develop.

Third, these two changes have resulted in a blurring of what was once a fundamental distinction between surveys: the difference between probability and non-probability sampling.

And fourth, highlighting the place of survey research in a globalized world, cross-cultural (or cross-national) survey research will continue to open up new research opportunities.

Coverage of themes

Survey research in political science encompasses a great diversity of subject matter; the most well-known application is the mass opinion survey of voting age population. Within the United States, the major political science survey is the American National Election Studies (ANES); around the world, the World Values Survey is conducted in more than 40 countries. Across Europe, there are the long-standing Euro barometer surveys and the more recent European Social Survey. These studies are only a few among the many in political science.

Although all these surveys share a common concern for understanding the beliefs, attitudes, and values of mass democratic publics, a general definition of a scientific survey is surprisingly elusive, given the many ways in which survey research is conducted.

At its core, survey research is the process of collecting data from a small part of a population to make general statements, or inferences, about characteristics of the larger population. These data are collected by having people answer questions to develop a set of systematic descriptions of the sample. The foundation of this process is built from writing a survey questionnaire and drawing a sample of individuals to interview.

Political Surveys and opinion polls

Before we conclude this unit it is essential to know about political surveys and opinion polls that are increasingly becoming important and common place these days.

Political surveys: Political surveys can help politicians to survey their target audience and understand the needs and wants of the public. They are strategic initiatives that can help a political party. Political surveys ask questions to gather the opinions and attitudes of potential voters. Such questionnaires are also used by political groups, political activists, political consultants, government agencies, and political candidates. Political surveys are helpful to identify supporters and understand what the public needs. Using such questions, a political candidate or an organization can formulate policies to gain support from these people. Such surveys can help map the political landscape, strategize policy initiatives and increase support from the potential voters. For example, a political candidate wants to understand the beliefs and opinions of his target population. In such a case, political surveys enable him to gather information that can be used to increase the presence and formulate social and political activities based on this data. Another example: A political candidate wants to understand the public's perception and opinion on media accountability. For such reasons, a media accountability survey can be carried out to gather data that can be used to formulate policies to address media accountability. Using such data, the candidate can position themselves better among his potential vote. The most common purposes for which they are used for, are as below:

Strategic initiatives – Political surveys can help politicians to survey their target audience and understand the needs and wants of the public. It is one of the fastest and best methods to give a voice to the voters. Based on the data gathered, strategic

initiatives can be started to satisfy the needs and wants of the prospective voters, thus ensuring support required for the elections.

Formulating Policies – Political surveys can give you insights into what kind of policies would benefit the overall population. Using such questions, a politician can gauge and draw policies that would help the population and create a better position for them among prospective voters.

Creating new laws – Such surveys used in political research can give voice to the population regarding laws and regulations. It gives them a feeling of being a part of the team proposing the reforms that are addressing critical issues where new laws and regulations are needed or have been overlooked in the past.

Strategic political campaigns – Political surveys are best to use to run strategic political campaigns. The data gathered through such surveys can enable the party to understand the geographic concentration of supporters, the intent of supporters, needs, and wants of the constituents. Hence, specific appearances, fundraisers, or speeches addressing the people's issue in that geographic concentration can be a strategic move for the political candidate to position themselves better.

Apart from the points mentioned above, political survey also shed some light on the strengths and weaknesses of the opponents, insights into creating effective marketing campaigns, and understanding possible outcomes of elections.

Opinion polls: Opinion polls are similar to surveys or an inquiry designed to gauge public opinion about a specific issue or a series of issues in a scientific and unbiased manner. It is often simply referred to as a poll survey also. It is a human research survey of public opinion from a particular sample. A person who conducts polls is referred to as a pollster. The first known example of an opinion poll was a tallies of voter preferences reported by the Raleigh Star and North Carolina State Gazette and the Wilmington American Watchman and Delaware Advertiser prior to the 1824 presidential election. The tallies showed Andrew Jackson leading John Quincy Adams by 335 votes to 169 in the contest for the United States Presidency. Since Jackson had eventually won the popular vote in that state and the whole country, such straw votes gradually became more popular both in America and elsewhere. Opinion polls can be used in the public relations field as well. In the early 1920s, public relation experts described their work as a two-way street. Their

job would be to present the misinterpreted interests of large institutions to public. They would also gauge the typically ignored interests of the public through polls. There are various kind s of opinion polls as described below:

Benchmark polls: A benchmark poll is generally the first poll taken in a campaign. It is often taken before a candidate announces their bid for office, but sometimes it happens immediately following that announcement after they have had some opportunity to raise funds. This is generally a short and simple survey of likely voters. Benchmark polls serve a number of purposes for a campaign, whether it is a political campaign or some other type of campaign. They give the candidates a picture of where they stand with the electorate before any campaigning takes place. If the poll is done prior to announcing for office the candidate may use the poll to decide whether or not they should even run for office. It also shows them where their weaknesses and strengths are in two main areas. A benchmark poll shows them what types of voters they are sure to win, those they are sure to lose, and everyone in-between these two extremes. Further, they can give them an idea of what messages, ideas, or slogans are the strongest with the electorate.

Brushfire polls: Brushfire polls are polls taken during the period between the benchmark poll and tracking polls. The number of brushfire polls taken by a campaign is determined by how competitive the race is and how much money the campaign has to spend. These polls usually focus on likely voters and the length of the survey varies on the number of messages being tested. Brushfire polls let the candidates know if they have made any progress on the ballot, how much progress has been made, and in what demographics they have been making or losing ground. Secondly, they help campaigners to test a variety of messages, both positive and negative, on themselves and their opponent(s). Thirdly, this kind of polls can be used by candidates or political parties to convince primary challengers to drop out of a race and support a stronger candidate.

Tracking polls: A tracking poll, also called rolling poll. It is a type of poll in which responses are obtained in a number of consecutive periods, for instance daily, and then results are calculated using a moving average of the responses that were gathered over a fixed number of the most recent periods, for example the past five days. In this example, the next calculated results will use data for five days counting backwards from the next day, namely the same data as before, but with the data

from the next day included, and without the data from the sixth day before that day.

Uses and limitations of opinion polls: However, these polls are sometimes subject to dramatic fluctuations, and so political campaigns and candidates have to be cautious in analysing their results. For example a tracking poll conducted during the 2000 U.S. presidential election by the Gallup Organization showed that the results for one day showed Democratic candidate Al Gore with an eleven-point lead over Republican candidate George W. Bush. Then, a subsequent poll conducted just two days later showed Bush ahead of Al Gore by seven points. It was soon determined that the volatility of the results was at least in part due to an uneven distribution of Democratic and Republican affiliated voters in the samples. Though the Gallup Organization argued the volatility in the poll was a genuine representation of the electorate, other polling organizations took steps to reduce such wide variations in their results. One such step included manipulating the proportion of Democrats and Republicans in any given sample, but this method is subject controversy.

Over time, a number of theories and mechanisms have been offered to explain erroneous polling results. Some of these reflect errors on the part of the pollsters; many of them are statistical in nature. Others blame the respondents for not giving candid answers. Further, by providing information about voting intentions, opinion polls can sometimes influence the behaviour of electors, and in his book The Broken Compass, Peter Hitchens asserts that opinion polls are actually a device for influencing public opinion.

The various theories about how this happens are summarised into two groups viz., the bandwagon/underdog effects, and strategic ("tactical") voting.A bandwagon effect occurs when the poll prompts voters to back the candidate shown to be winning in the poll. The opposite of the bandwagon effect is the underdog effect. It is often mentioned in the media. This occurs when people vote, out of sympathy, for the party perceived to be "losing" the elections. The strategic or tactical voting theory is based on the idea that voters view the act of voting as a means of selecting a government. Thus they will sometimes not choose the candidate they prefer on ground of ideology or sympathy, but another, less-preferred, candidate from strategic considerations.

In addition, Mark Pickup outlines three additional "behavioural" responses that voters may exhibit when faced with polling data. The first is known as a "cue taking" effect which holds that poll data is used as a "proxy" for information about the candidates or parties. The second is known as "cognitive response" theory. This theory asserts that a voter's response to a poll may not line with their initial conception of the electoral reality. In response, the voter is likely to generate a "mental list" in which they create reasons for a party's loss or gain in the polls. This can reinforce or change their opinion of the candidate and thus affect voting behaviour. Third, the final possibility is a "behavioural response" which is similar to a cognitive response. The only salient difference is that a voter will go and seek new information to form their "mental list", thus becoming more informed of the election. This may then affect voting behaviour.

These effects indicate how opinion polls can directly affect political choices of the electorate. But directly or indirectly, other effects can be surveyed and analyzed on all political parties. The form of media framing and party ideology shifts must also be taken under consideration. Opinion polling in some instances is a measure of cognitive bias, which is variably considered and handled appropriately in its various applications.

Conclusion

The challenges facing survey research for the 21st century are great, but it would be premature to begin penning the method's irrelevance or phasing out. Survey research has faced similar challenges in the past and been the subject of criticism that the industry would decline. When survey researchers faced severely declining response rates for face-to-face surveys in the 1960s, some questioned whether surveys would survive. Instead of declining, survey research thrived, leading to the widespread scientific study of survey questionnaires and sampling methodologies. So today, survey researchers will meet the challenges of the current era. No other research tool facilitates the study of population characteristics on the basis of a relatively small sample as well as survey research. Even challenges such as the development of cellular telephone technologies will likely prove to be surmountable. The spread of Internet access, further development of social networking technology, and the continued growth of exclusive cell phone ownership will likely be future research subjects, ensuring the place of survey research in political science.

Surveys sometimes have a poor reputation. Researchers have seen response rates decline because this method of data gathering has become unpopular since the 1990s. Part of the reason for this perception is due to the fact that everyone tries to use it online since it is a low-cost way to collect information for decision-making purposes.

That is why researchers are moving toward a rewards-based system to encourage higher participation and completion rates. The most obvious way to facilitate this behaviour is to offer something tangible, such as a gift card or a contest entry. You can generate more responses by creating an anonymous process that encourages direct and honest answers.

These survey research advantages and disadvantages prove that this process isnot as easy as it might see from the outside. Until you sit down to start writing the questions, you may not entirely know where you want to take this data collection effort. By incorporating the critical points above, you can begin to craft questions in a way that encourages the completion of the activity.

Glossary

Gallup polls: Gallup polls are public opinion polls. They are so called because they are popularised by Gallup, Inc. which is an American analytics and advisory company based in Washington, founded by George Gallup in 1935.

Bandwagon effect: A bandwagon effect is one that occurs when the poll prompts voters to back the candidate shown to be winning in the poll.

Underdog effect: The opposite of the bandwagon effect is the underdog effect. It is often mentioned in the media. This occurs when people vote, out of sympathy, for the party perceived to be "losing" the elections.

Opinion polls: Surveys conducted for assessment of public opinion obtained by questioning a representative sample.

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INTRODUCTION TO SURVEY RESEARCH

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Abstract

This article defines survey research, traces out its history, lists out and explains the major characteristics of survey research and describes the different ways in which survey research can be used in social sciences including business management. Understanding of survey research methods is very essential for students and research scholars of management sciences including business management.

Key words

Survey, Questionnaire, Design, Methods, Social Sciences, Research, Guide, Management, Research scholars

Introduction

Research is an important human endeavour that has continuously improved human life over the centuries. The transition of human kind from savagery to civilisation owes much to the advancements in our knowledge due research. Research is done in different branches of learning called natural sciences, social sciences and humanities. Social sciences comprise of several subjects/disciplines that include management, history, economics, sociology, political science, anthropology, psychology, ethics, logic and public administration. Research being a methodical way of searching for the truth and conceptualising about it, finding out facts, deducing principles and formulating theories the methods of research play an important role in the development of social sciences. There are several methods of research in social sciences including political science. They are philosophic method, historical method, comparative method, case study method, experimental method, survey method and so on. In this unit we shall try to understand about the survey method which is also known as survey research method and empirical method. This unit helps you to understand and gain an overview of the survey research method that is widely employed in political science since the time of behavioural science revolution. This learning in turn helps you as a student,

employee or researcher to understand social reality as well as the nature of social problems underlying such a reality. Besides, this unit's importance is also due to fact that much of the research in political science and its closely allied subject public administration these days is mostly done using this method only. In contrast to this the research in natural sciences is largely based on laboratory and experimental methods. The scope for the experimental is highly restricted in political science and hence survey method assumes added importance.

What is survey research?

The word survey means to look at, look over, observe, view, contemplate, regard or see. It is both a verb and a noun. As a verb it literally means looking at carefully and thoroughly at things, persons or events so as to understand them. As used in civil engineering survey means examining and recording the features of an area of land so as to construct a map, plan, or description. In social sciences it is used as a process of investigating the opinions or experiences of people by asking them questions. Thus it is a stimulus-response process involving the researcher who stimulates by asking questions and the respondent who provides answers in the form of his or her responses. As a noun it means a general view, examination or description of things, persons or events.

As already mentioned above survey research is a major method of conducting research in political science and other social sciences. It is a method of research based on primary data as contrasted to the library method which is based on the secondary data. Survey research involves the collection of data attained by asking individuals questions either in person, on paper, by phone or online. Conducting surveys is one form of primary research, which is the gathering data first-hand from its source although the information collected may also be accessed subsequently by other parties in secondary research.

A survey can also be understood as a research method used for collecting data from a pre-defined group of respondents to gain information and insights on various topics of interest. During the course of survey research researchers ask the participants in a survey, who are technically called respondents, to report or share their thoughts, feelings, experiences, perceptions and behaviours. Alternatively, or additionally the researchers also observe the conditions of a social setting and

record their observations as a part of the survey research.

Social surveys have a variety of purposes and can be carried out in many different ways depending on the methodology chosen and the objectives to be achieved. It is used to gather the opinions, beliefs and feelings of selected groups of individuals, often chosen for demographic sampling. These demographics also include age, caste, religion, gender, ethnicity, income levels and so on. The most famous major public survey had focused on demographics in the United States of America as a part of the United States Census, which occurs every ten years. The decennial population census conducted by the Registrar General and Census Commissioner, Ministry of Home Affairs, Government of India is another good example of survey research. In India survey research is conducted by teachers and researchers of political science, policy think-tanks, National Sample Survey Organisation, psephologists and market researchers.

Surveys can be long or short. They can be conducted in person, by telephone, through the mail, or over the Internet. In a subject like political science they can be about voting intentions, party preferences, ideological leanings, leadership styles, likes and dislikes of particular policies or political leaders. In subjects like commerce and management consumer preferences, in sociology social attitudes, in health administration health issues, or anything else that it is possible to ask people about and receive meaningful answers constitute the subject matter of the survey research. Although survey data are often analysed using statistics, there are many questions that lend themselves to more qualitative analysis.

Survey research is used all over the world besides academia by policy think-tanks, consultants, political strategists, political parties, psephologists, pollsters, government agencies and business organisations. Governments use research surveys to learn about their citizens to help them and serve them better, while political candidates use survey research to gauge the preferences and opinions of voters. Businesses use surveys to gather information about customer attitudes and experiences to help market consumer products better. In academia, surveys are applied in fields like demographics, statistics and social research.

Most survey research is non-experimental. It is used to describe single variables (e.g., the percentage of voters who prefer one candidate or another, the prevalence

of schizophrenia in the general population) and also to assess statistical relationships between variables such as for example the relationship between income and ideological preferences. But surveys can also be experimental. The study by Lerner and her colleagues is a good example. Their use of self-report measures and a large national sample identifies their work as survey research. But their manipulation of an independent variable (anger vs. fear) to assess its effect on a dependent variable (risk judgments) also identifies their work as experimental.

Roots of Survey Research Method

Survey research has its roots in English and American "social surveys" conducted around the turn of the 20th century by researchers and reformers who wanted to document the extent of social problems such as poverty. The British colonial government in India took one of the early leads in social surveys by introducing the system of ten-yearly or decennial census collection more than a century ago. It is pertinent to say that the Indian census establishment is one of the best in the world and the best among the developing countries. By the 1930s, the US government was conducting surveys to document economic and social conditions in the country. The need to draw conclusions about the entire population helped it to spur advances in sampling procedures. At about the same time, several researchers who had already made a name for themselves in market research, studying consumer preferences for American businesses, turned their attention to election polling. A watershed event was the US presidential election of 1936 between Alf Landon and Franklin Roosevelt. A magazine called *Literary Digest* conducted a survey by sending ballots to millions of Americans. Based on this "straw poll," the editors predicted that Alf Landon would win in a landslide. At the same time, the new pollsters were using scientific methods with much smaller samples to predict just the opposite—that Roosevelt would win in a landslide. In fact, one of them, George Gallup, publicly criticized the methods of *Literary Digest* before the election and all but guaranteed that his prediction would be correct. And of course it was. Interest in surveying around election times has led to several long-term projects, notably the Canadian Election Studies which measured opinions of Canadian voters around federal elections since 1965.

From market research and election polling, survey research made its way into several academic fields, including political science, sociology, and public

health—where it continues to be one of the primary approaches to collecting new data. Beginning in the 1930s, psychologists made important advances in questionnaire design, including techniques that are still used today, such as the Likert scale. Survey research has a strong historical association with the social psychological study of attitudes, stereotypes, and prejudice. Early attitude researchers were also among the first psychologists to seek larger and more diverse samples than the convenience samples of university students that were routinely used in psychology. Survey research is also used to conduct experiments to test specific hypotheses about causal relationships between variables. Such studies, when conducted on large and diverse samples, can be a useful supplements to laboratory studies. Although this approach is not a typical use of survey research, it certainly illustrates the flexibility of this method.

Features of good survey research

To design a good survey, we need to identify who needs what information, why they need that information, and what they plan to do with the results of the survey. Further, we should make sure that respondents are motivated to participate, know the purpose of the survey, and weather respondents can easily understand and respond to our questions. Here are the eight major characteristics of an effective survey research method:

Sufficient demographic information - Even if you use a voter list or other targeted list for a voter satisfaction or other study, you may later want to analyze the results by smaller segments. Identify segments of interest at the beginning. Then, include a few relevant demographic questions, e.g., age, gender, caste, religion, gender, region, family background, occupation etc.

Focused surveys - Avoid question creep. If you are asking questions about a particular topic resist requests from colleagues to insert questions on other issues that waste questions or make the survey seem unfocused.

Clear questions - Make questions easy to understand by avoiding acronyms, technical words, jargon, complex sentences, and ambiguous language. Define terms, such as "cloud computing" or "the cloud," that can mean different things to different people. Simplify sentences. Be concrete.

One-part questions - Subdivide two-part questions. If participants agree with one part of the question, but not the other, their answers will not be meaningful.

Other options - When none of the answers to multiple choice questions apply, respondents will select any response. If you provide options, such as "other," "neutral," or "none-of-the-above," followed by "please explain," responses will be more accurate. And, the comments will provide unexpected insights.

Logical sequencing of questions - When you have formulated the questions, check if the sequence of questions is logical. If you say go from Question 9 to Question 12, make sure to have a Question 12, and make sure that Question 10 logically follows Question 9 and question 11 follows question 10 and so on.

Motivation - Use approaches, such as email, phone calls, or direct mail, to invite the target group to participate in the study. Make sure that participants are sympathetic with the purpose of the survey and are interested in the subjects covered in the survey. Provide an incentive or share some of the results to enhance their motivation for participation.

Openness - Use results as you promised. If you say you will report aggregate data, do not reveal participants' names. Deceptive practices give bad reputations and cloud future relationships with participants.

Well-designed surveys help us identify the social problems, public expectations or voter preferences. Whether you use an online or traditional survey instrument, you should first think of the desired uses and the expected benefits of the survey, and then develop good survey questions and survey logic.

Conclusion

Survey research is a quantitative approach that features the use of self-report measures on carefully selected samples. It is a flexible approach that can be used to study a wide variety of basic and applied research questions. Survey research has its roots in applied social research, market research, and election polling. It has since become an important approach in many academic disciplines, including political science, public administration, sociology, public health and psychology. Its popularity in social sciences has increased after the behavioural sciences

movement. Survey method has its sub-methods such as interview, observation and content analysis. Pre-poll surveys, population census and nationwide sample surveys conducted by the NSS are some good examples of social surveys. India's decennial census is one of the earliest and best examples of social surveys that eventually helped India in socio-economic planning and development.

Glossary

Survey research - Survey research has its roots in English and American "social surveys" conducted around the turn of the 20th century by researchers and reformers who wanted to document the extent of social problems such as poverty.

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METHODS OF COLLECTION AND ANALYSIS OF SURVEY DATA

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Abstract

The specific objectives of this article include explaining what is survey data, sources of survey data, and identifying and understanding the major methods and sub-methods of collecting survey data.

Keywords

Surveys, Data Collection, Data Analysis, Interview, Telephonic Surveys, Face-to-face Surveys, and Online Surveys, Quantitative and Qualitative Data

Meaning of survey data

Survey data is defined as the resultant data that is collected from a sample of respondents that took a survey. This data is comprehensive information gathered from a target audience about a specific topic to conduct research. There are many different methods and sub-methods used by researchers for survey data collection.

Major sources of survey data

There are many different sources of data and there is in no one way of classifying them. We will briefly explore these different classifications to gain a comprehensive understanding of these multiple sources.

Primary and secondary sources: There are two main types of data: primary and secondary. Understanding the difference between the *two* is important in deciding which method and source of data collection to use. Primary data means first-hand information collected by an investigator. It is collected for the first time. It is original and hence more reliable. For example, the population census conducted by the Government of India after every ten years is primary data. Secondary data refers to second-hand information. It is not originally collected and rather obtained from already published or unpublished sources. For example, the address of a person taken from the telephone directory or the phone number of a company taken from

Just Dial are secondary data.

Statistical and non-statistical data: The sources of data can also be classified into two more types: statistical data and non-statistical data. Statistical sources of data refer to data that is gathered for some official purposes, incorporate censuses, and officially administered surveys. Non-statistical sources refer to the collection of data for other administrative purposes or for the private sector.

Internal and external sources of data: Further, the sources of data can also be classified into internal sources and external sources. When the data is collected from reports and records of the organisation itself, they are known as the internal sources. For example, a political party publishes its observations on the state of economy annual report' on profit and loss, total sales, loans, wages, etc. However, when the internal sources prove inadequate or subjective there will be need to go for external sources. When data is collected from sources outside the organisation, they are known as the external sources. For example, if a government department of Telangana obtains data from the corresponding department of the Karnataka State it would be known as an external source of data.

Methods of collecting survey data

Data collection is a process of gathering and measuring information from all the relevant sources to find a solution to the research problem. It helps to evaluate the outcome of the problem. The data collection methods allow a person to conclude an answer to the relevant question. The goal for all data collection is to capture quality evidence that allows analysis to lead to the formulation of convincing and credible answers to the questions that have been posed.

The methods used to collect survey data have evolved over a period of time with the change in technology making the process of data collection more scientific and rigorous. From face-to-face surveys, telephonic surveys to now online and email surveys, the world of survey data collection has changed with time. Each survey data collection method has its pros and cons, and every researcher may have his or her own preference for gathering accurate information from the target sample. There are three distinct methods of collecting survey data and they are: 1. Observation method, 2. Interview method, and 3. Content analysis. The survey response rates for each of these data collection methods will differ as their reach

and impact are different. Different ways are chosen according to specific target population characteristics and the intent to examine human nature under various situations.

Observation Method: Observation is the act of watching what people do. It is a common method of carrying out research in political science. The observation method is described as a method to observe and describe the behaviour of a subject. As the name suggests, it is a way of collecting relevant information and data by observing. It is also referred to as a participatory study because the researcher has to establish a link with the respondent and for this has to immerse himself in the same setting as theirs. Only then can he use the observation method to record and take notes. Observation method is used in cases where you want to avoid an error that can be a result of bias during evaluation and interpretation processes. It is a way to obtain objective data by watching a participant and recording the observations for analysis at a later stage. For example, a study of Village Panchayat elections can be done using the observation method wherein he or she observes what all is happening prior to elections, during elections and soon after elections. Observation based method of data collection is associated with a few ethical issues as it needs the full consent of a research participant.

Observation method in data collection has two variants known as structured observation and unstructured observation. Structured observation method is a systematic observation method where in data is collected as per a pre-defined schedule. A specific variable is used in this method for data collection. The unstructured observation method is conducted in a free and open manner without using any pre-determined objectives, schedules or variables.

There are three subtypes of observation method viz., controlled observation, naturalistic or uncontrolled observation and participant observation as detailed below.

Controlled observation: The controlled observation is carried out in a closed space. It is the researcher who has the authority to decide the place and the time where and when the observation will take place. He also decides who the participants will be and in what circumstances will he use the standardized process. The participants are chosen for a variable group randomly. The researcher observes and records a

detailed and descriptive data of behaviour and divides it into a distinct category. Sometimes the researcher codes the action as per an agreed scale by using a behaviour schedule. The coding can include letters or numbers or a range to measure behaviour intensity and describe its characteristics. The data collected is often turned into statistics. In a controlled observation method, the participants are informed by the researcher about the aim of the research. This makes them aware of being observed. The researcher avoids direct contact during the observation method and generally uses a two-way mirror to observe and record details.

There are a few advantages of controlled observation method. Firstly, the data received from a controlled observation method are structured and analytical. It is thus easy to analyse it quickly. It is also considered less time-consuming than the uncontrolled observation method. Secondly, the other researchers can easily replicate the report that has been created through the controlled observation method by using a similar observation schedule, and this makes it easy to test for reliability. Thirdly, the controlled observation method enables several quick observations can be conducted within a short time frame. Thus the researcher can collect large samples which makes it easier for him to generalize a large population. The major limitation of the controlled observation method is that it lacks validity because when the participants are aware of being observed their behaviour might undergo change and might become artificial.

Uncontrolled observation:Social scientists and psychologists generally use the uncontrolled or naturalistic observation method. The process involves observing and studying the spontaneous behaviour of the participants in their natural surroundings. The role of the researcher is to find and record whatever he can see and observe in natural habitat. The two advantages of naturalistic observation method are: Firstly, when a participant is in a natural habitat, his flow of behaviour is natural and not forced. Secondly, the studies gain better ecological validity than the controlled observation method. The naturalistic observation method is used by the researchers to create new ideas. The researcher has the chance to observe the total situation and can find avenues that other people have not thought about.

The major limitations of naturalistic observation methods are as follows:

1. The naturalistic observation method facilitates observations on a micro-scale. It

often lacks a representative sample and thus cannot help the researcher in making a generalization that relates to a broader society.

2. In this type of observation method, the researcher needs proper training to recognize aspects that are significant and worth attention.

3. The observations through naturalistic observation method are not as reliable as the researcher wants them to be because it is not possible to control all the variables. This is why other researchers cannot similarly repeat the study or research.

4. Establishing the cause and effect relationship is not possible because the researcher cannot manipulate the variables.

Participant observation:The participant observation method is often considered a variant of the naturalistic observation method because it has some similarities with it. The point of difference is that the researcher is not a distant observer anymore because he has joined the participants and become a part of their group. He does this to get a more in-depth and greater insight into their lives. Here the researcher interacts with other members of the group freely, participates in their activities, studies their behaviour and acquires a different way of life. Participant observation can be overt or covert. When the researcher asks permission from a group to mingle the observation method is known as overt. He does so by revealing his true purpose and real identity to the group with whom he wants to mingle. Alternatively, when the researcher does not show either his true identity or real meaning to the group that he wants to join then the observation is known as covert. He keeps both concealed and takes on a false role and identity to enter and mingle in the group. He generally acts as if he is a genuine member of that group.

Advantages of participant observation method is that it is easy to study and observe the natural behaviour of the participants in the group by becoming a part of that group. The respondents generally do not know that they are being observed and behaviour recorded, so that they are not restrained or constrained in exhibiting their activities and natural behaviour. The researcher's understanding increases since he can closely follow up the events of the respondents from such a close angle. Further, during the participant observation method, the researcher develops a good and healthy relationship or rapport with the respondents. This rapport helps him to participate in all the activities and make observations with a detached mind. The

participant observation method also helps the researcher to observe the actual behaviour of the respondents and create an inclusive and intensive case study of that group. Furthermore, the actual participation in the activities provides the researcher with an opportunity to converse freely with other members about various events, their meaning and their importance to them. He gains an in-depth knowledge which would not have been possible by non-participant observation.

Limitations of participant observation method may be listed thus:

1. It is challenging to work undercover. For example, the researcher will have only to observe and not record in front of others because he will not want to blow his cover. He relies heavily on his memory which can be faulty at times

2. Sometimes the researcher becomes too involved in the intricacies of that group. There is a higher chance of losing his objectivity because his reporting will be selective and dependent on his memory

3. The emotional participation of the researcher can result in biased interpretations. He will be influenced to some degree and a time might come when he would start supporting them unconditionally because their views and behaviour will ultimately become his. This will result in a personal viewpoint of the scenario and not an objective or scientific report

4. In the participant observation method, the researcher's experience becomes intense because of his proximity to the group members but the range becomes limited

5. Proximity with the group will involve him in group factionalism, and he will have to take sides. Thus he can lose his objectivity as an impartial observer with whom everyone is ready to cooperate.

Interview method

Interview method is a method of collecting research relevant information from the respondents on the basis of interview or interface. In this method the researcher or interviewer asks some questions to the respondents and elicits answers relevant for the topic of research.

Types of interviews: Interviews are of three broad types based on the degree to which they are structured. On this basis we can identify three different types of the interviews viz., fully structured, semi-structured and unstructured interviews.

Fully structured interviews Fully-structured interview method, also called formal interview method is popularly called as the questionnaire method. This is a method of interviewing that is most popular. Under this method the researcher goes to the field of research equipped with a fully structured instrument of data collection called questionnaire (literally a series of questions) to make his job clear and easy. Questionnaire can be defined as a set of printed or written questions with a choice of answers, devised for the purposes of a survey or statistical study. Informants are expected to read and understand the questions and reply in the space provided in the questionnaire itself.

Here the boundaries for the interviews to be conducted are completely fixed because of the complete formatting and structuring of the interviews. Questionnaires are a common and inexpensive research tool used by researchers, private companies, government departments, individuals, groups, NGOs etc. to get feedbackfrom the general or specific publics depending on the need. They are the most important part of primary surveys.

There are several readymade questionnaires available both on the net and in the psychology labs to guide inexperienced researchers in their job. The researcher may use a questionnaire as it is or he can tailor make it to suit his specific research objectives. The researcher needs to know the nitty gritty of constructing a questionnaire. For this he needs clarity on research objectives, command over scientific language, length of questionnaire, sequential order of questions, choice between closed-ended and open-ended questions, appropriate choice of sampleand so on. Further, he needs to pre-test his questionnaire on dummy respondents to fine-tune it to facilitate the actual job of interviewing for getting the required quality and quantity of data from the respondents covered by the sample.

The following may be listed as characteristics of a good questionnaire:

It should consist of a well-written list of questions.

The questionnaire should deal with an important or significant topic to create interest among respondents.

It should seek only that data which cannot be obtained from other sources such as observation or content analysis.

It should be as short as possible but should be comprehensive enough to elicit all the required data.

It should be attractive.

Directions for filling up the questionnaire should be clear and complete.

Questions should be listed in good psychological order proceeding from general to more specific responses.

Double negatives in questions should be avoided.

Putting two questions in one question also should be avoided. Every question should seek to obtain only one specific information.

It should be designed to collect information which can be used subsequently as data for analysis.

One of the greatest benefits of questionnaires lies in their uniformity — all respondents see exactly the same questions. It is an inexpensive method, regardless of the size of the universe. It tends to be free from the bias of the interviewer, as the respondents answer the questions in his own words. In this method the respondents have enough time to think and answer. Coming to the negative sideof questionnaire method the risk of collection of inaccurate and incomplete information is high in the questionnaire, as it might happen that people may not be able to understand the question correctly. Further the rate of non-response is high in this way of conducting survey research.

Semi-structured interviews: Semi-structured interviews fall in between the fully structured method of questionnaire and the completely unstructured method of informal interviews. They are the interviews based on interview schedules. An interview schedule is a loosely structured data collection instrument wherein the

items on which data is to be collected are listed in a proper sequence in a skeletal form to aid the memory interviewer to focus on all the different aspects the data needed. We can also understand this as a method of data collection falling in between the questionnaire and the discussion method. Thus it combines the advantage of structuring the interview, though not fully, and of infusing certain informality in the interview process to bring in the advantages of spontaneity and a feeling of naturalness. Interview schedule is also piece of paper like a questionnaire but it is comparatively shorter, less detailed and flexibility. In other words, questions asked in a semi-structured interview are framed by the researcher then and there depending on the background of the respondents.The interview schedule has several advantages. It provides considerable flexibility to the interviewer. Questions can be clarified, if necessary the respondent can be given an opportunity to qualify or modify his answer and the interviewer can carefully observe the individual during the session, noting down the feeling attached to his answer. If the interviewer is experienced and trained, he can go beyond external purposes of the interview and he can understand the inner feelings, wishes, desires, likes and dislikes of the respondents. While interviewing, the behaviour of the subject can be observed and information with regard to his emotional complex can be observed which will be greatly helpful for individual guidance. It can be adaptable, capable of being used with all types of individuals. The Interview schedule has certain limitations also. It is an extremely time consuming process. Information obtained through this method is not standardized from one person to another.

Unstructured interviews: Unstructured interview method of research is also called as discussion method and informal interview method. Under this method of doing research a researcher goes to the field with a certain broad idea of what information is needed but without actually carrying a questionnaire or an interview schedule. He will have a mental picture of what data is needed but will formulate his information seeking questions keeping in view the background of the respondents and the context of the interview. Under this method the respondent becomes more free and less inhibited in sharing the information. The problem faced in a fully structured interview viz., the respondent becoming conditioned and inhibited in giving information that is being recorded by the researcher could be avoided here. Spontaneity, informality and greater attentiveness on the part of the respondents will also be the other advantages.

Content analysis

Content analysis is the study of documents and communication artifacts which might be texts of various formats, pictures, audio or video. Content analysis, also called document analysis, is a form of qualitative research that uses a systematic procedure to analyse documentary evidence and answer specific research questions. According to Babbie content analysis is "the study of recorded human communications, such as books, websites, paintings and laws". This is a method of data collection which involves analysis of content from written documents in order to make certain deductions based on the study parameters.

Social scientists use content analysis to examine patterns in communication in a replicable and systematic manner. The method is mainly used in qualitative research as a method of qualitative analysis. In analysis of document, the researcher must bring out the document type (e.g., report, records etc.), the kind of document it is (government or institution document), its dates, where written, author and title, the aim of the document, the factual information contained, why the document is a valuable source of information, how the document can be used, what the document does not answer and could be answered by the author should all be brought out. This is done in order to validate the documents.

One of the main advantages of content analysis is that the method facilitates the collection of a large amount of reliable information without necessarily questioning many people. Another key advantages of using content analysis is its non-invasive nature, in contrast to simulating social experiences or collecting survey answers. The method is having a limitation in the sense it is based on secondary data and as such, is likely to have some errors. The analysis is also a laborious one and requires certain level of expertise.

Methods of data collection based on deployment methods

Based on the method of deployment for collecting survey data there are four main survey data collection methods – Telephonic Surveys, Face-to-face Surveys, Online Surveys and Paper Surveys.

Online Surveys: Online surveys are the most cost-effective and can reach the maximum number of people in comparison to the other mediums. The performance

of these surveys is much more widespread than the other data collection methods. In situations where there is more than one question to be asked to the target sample, certain researchers prefer conducting online surveys over the traditional face-to-face or telephone surveys. Online surveys are effective and therefore require computational logic and branching technologies for exponentially more accurate survey data collection vs. any other traditional means of surveying. They are straightforward in their implementation and take a minimum time of the respondents. The investment required for survey data collection using online surveys is also negligible in comparison to the other methods. The results are collected in real-time for researchers to analyse and decide corrective measures. A very good example of an online survey is a political party using an online survey to collect guest satisfaction metrics after a stay or an event at the property. Besides, online surveys are safe and secure to conduct. As there is no in-person interaction or any direct form of communication, they are quite useful in times of the Covid pandemic crisis. For instance, many organizations moved to contactless surveys during the pandemic. It helped them ensure that the employees are not experiencing any COVID-19 symptoms before they come to the office.

Face-to-face Surveys: Gaining information from respondents via face-to-face mediums is much more effective than the other mediums because respondents usually tend to trust the surveyors and provide honest and clear feedback about the subject in-hand.

Researchers can easily identify whether their respondents are uncomfortable with the asked questions and can be extremely productive in case there are sensitive topics involved in the discussion. This online data collection method demands more cost-investment than in comparison to the other methods. According to the geographic or psychographic segmentation, researchers must be trained to gain accurate information.

Telephone Surveys: Telephone surveys require much lesser investment than face-to-face surveys. Depending on the required reach, telephone surveys cost as much or a little more than online surveys. Contacting respondents via the telephonic medium requires less effort and manpower than the face-to-face survey medium. If interviewers are located at the same place, they can cross-check their questions to ensure error-free questions are asked to the target audience. The main drawback of

conducting telephone surveys is that establishing a friendly equation with the respondent becomes challenging due to the bridge of the medium. Respondents are also highly likely to choose to remain anonymous in their feedback over the phone as the reliability associated with the researcher can be questioned.

Paper Surveys: The other commonly used survey method is paper surveys. These surveys can be used where laptops, computers, and tablets cannot go, and hence they use the age-old method of data collection; pen and paper. This method helps collect survey data in field research and helps strengthen the number of responses collected and the validity of these responses. A popular example or use case of a paper survey is a fast food restaurant survey where the fast-food chain would like to collect feedback on the dining experience of its patrons.

Types of surveys based on the frequency at which they are administered

Surveys can be divided into three different types on the basis of the frequency of their distribution. They are:

Cross-Sectional Surveys: Cross-sectional surveys are an observational research method that analyses data of variables collected at one given point of time across a sample population or a pre-defined subset. The survey data from this method helps the researcher understand what the respondent is feeling at a certain point in time. It helps measure opinions in a particular situation. For example, if the researcher would like to understand movie rental habits, a survey can be conducted across demographics and geographical locations. The cross-sectional survey, for example, can help understand that males between 21-28 rent action movies and females between 35-45 rent romantic comedies. This survey data helps for the basis of a longitudinal study.

Longitudinal Surveys: Longitudinal surveys are those surveys that help researchers to make an observation and collect data over an extended period of time. This survey data can be qualitative or quantitative in nature, and the survey creator does not interfere with the survey respondents. For example, a longitudinal study can be carried out for years to help understand if mine workers are more prone to lung diseases. This study takes a year and discounts any pre-existing conditions.

Retrospective Surveys: In retrospective surveys, researchers ask respondents to

report events from the past. This survey method offers in-depth survey data but does not take as long to complete. By deploying this kind of survey, researchers can gather data based on past experiences and beliefs of people. For example, a former legislator can be asked to narrate what it meant to be a legislator or an M LA in terms of his role, responsibility and challenges on the basis of his lived in experiences.

Analysis of Survey Data

After the survey data has been collected, it has to be analysed to ensure that it serves the end objective of research. There are four main steps of survey data analysis and they are:

Understand the most popular survey research questions: The survey questions should align with the overall purpose of the survey. That is when the collected data will be effective in helping researchers. For example, if a seminar has been conducted, the researchers will send out a post-seminar feedback survey. The primary goal of this survey will be to understand whether the attendees are interested in attending future seminars. The question will be: "How likely are you to attend future seminars?" – Data collected for this question will decide the likelihood of success of future seminars.

Filter obtained results using the cross-tabulation technique: Understand the various categories in the target audience and their thoughts using cross-tabulation format. For example, if there are business owners, administrators, students, etc. who attend a seminar on a regional issue, the data about whether they would prefer attending future seminars or not can be represented using cross-tabulation.

Evaluate the derived numbers: Analyzing the gathered information is critical. How many of the attendees are of the opinion that they will be attending future seminars and how many will not – these facts need to be evaluated according to the results obtained from the sample.

Draw conclusions: Weave a story with the collected and analyzed data. What was the intention of the survey research, and how does the survey data suffice that objective? – Understand that and develop accurate, conclusive results.

Statistical analysis

Statistical analysis can be conducted on the quantitative survey data to make sense of the data that has been collected. There are multiple data analysis methods of quantitative data. Some of the commonly used types are:

Cross-tabulation: Cross-tabulation is the most widely used data analysis methods. It uses a basic tabulation framework to make sense of data. This statistical analysis method helps tabulate data into easily understandable rows and columns, and this helps draw parallels between different research parameters. It contains data that is mutually exclusive or have some connection with each other.

Trend analysis: Trend analysis is a statistical analysis method that provides the ability to look at survey-data over a long period of time. This method helps plot aggregated response data over time allows drawing a trend line of the change, if any, of perceptions over time about a common variable.

MaxDiff analysis: The MaxDiff analysis method is used to gauge what a person prefers in a product or a service across multiple parameters. For example, a product's feature list, the difference with the competition, ease of use and scale, pricing, etc. form the basis for maxdiff analysis. This method is also called the "best-worst" method and is very similar to conjoint analysis, but it is much easier to implement and can be interchangeably used.

Conjoint analysis: As mentioned above, conjoint analysis is similar to maxdiff analysis, only differing in its complexity and the ability to collect and analyse advance survey data. This method analyses each parameter behind a person's choice behaviour. By using conjoint analysis, it is possible to understand what exactly is important to a person be it a voter or customer and the aspects that are evaluated before choice.

TURF analysis: TURF analysis (or Total Unduplicated Reach and Frequency analysis) is a statistical research methodology that assesses the total market reach of an organisation, product or service or a mix of them. This method is used by organizations to understand the frequency and the avenues at which their messaging reaches the people being surveyed. This helps them tweak their strategies.

Gap analysis: Gap analysis uses a side-by-side matrix question type that helps measure the difference between expected performance and actual performance. This statistical method for survey data helps understand the things that have to be done to move performance from the actual one to a desired one.

SWOT analysis: SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis, is another widely used statistical method. It organizes survey data into data that represents the strengths, weaknesses, opportunities, and threats of an organization or product or service that provides a holistic picture of competition. This method helps to create effective political or policy strategies.

Text analysis: Text analysis is an advanced statistical method where intelligent tools make sense of and quantify or fashion qualitative and open-ended data into easily understandable data. This method is used when the survey data is unstructured.

Conclusion

There are many methods as well as sub-methods of collecting survey data. Similarly, there are also many methods and ways of analysing survey data that is collected. The researcher should have proper knowledge of all these so that he or she can make use of proper methods suiting the research objectives. He should also be aware of the merits and limitations of all these so that he can optimise the quality of his research.

Glossary

Data: Data are **units of information, often numeric, that are collected through observation or interview.** In a more technical sense, data are a set of values of qualitative or quantitative variables about one or more persons or objects, while a datum (singular of data) is a single value of a single variable. Although the terms "data" and "information" are often used interchangeably, these terms have distinct meanings.

Statistics: The practice or science of collecting and analysing numerical data in large quantities, especially for the purpose of inferring proportions in a whole from those in a representative sample.

Primary data: Primary data is a type of data that is collected by researchers directly from main sources through interviews, surveys, experiments, etc.

Secondary data: Secondary data are basically second-hand pieces of information. These are not gathered from the source as the primary data. To put it in other words, the secondary data are those that are already collected. So, these are comparatively less reliable than the primary data.

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SAMPLING-MEANING, IMPORTANCE, PROCESS AND TYPES

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Abstract

This article presents the concept of sampling, steps involved in sampling, the different types or methods of sampling and applications of sampling in the statistical world as well as the real world. It will also explain the sampling errors that might creep into survey research in the absence of proper care to avoid or to overcome them.

Key words

Sampling Method, Research Methodology, Probability Sampling, Non-Probability Sampling, Qualitative and Quantitative Sampling

Concept of sampling

Population and sampling are two important terms that are used in the context of a research design. A population is a group of individuals that share common connections. Population is also called as universe. It is the total collection of all the population elements, each of which is a potential case for inclusion in the study or survey. A sample is thus a subset of the population. The sample size is the number of individuals in a sample. The more representative the sample of the population, the more confident the researcher can be about ensuring the quality of the research results.

Sampling is also defined as the action or process of taking samples of something for analysis. It is a process used in statistical analysis in which a predetermined number of observations are taken from a larger population. It is the act, process, or technique of selecting a representative part of a population for the purpose of determining parameters or characteristics of the whole population. Further it is also viewed as a statistical procedure of drawing a small number of elements from a population and drawing valid conclusions regarding the population. Simply stated sampling is the process whereby a researcher chooses his or her sample.
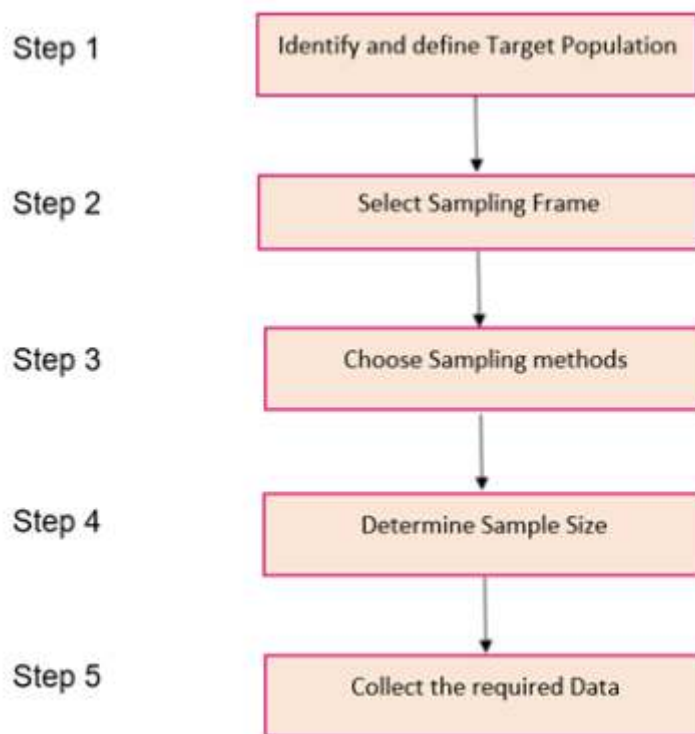
Sampling allows us to get information about an unwieldy population based on the use of statistical techniques from a subset of the population, without having the botheration of investigating every individual.

Why sampling?

There are several advantages of use of sampling in research studies. Firstly, selecting a sample requires less time than selecting every item in a population. Secondly, sample selection is a cost-efficient method. Thirdly, analysis of the sample is less cumbersome and more practical than an analysis of the entire population. Fourthly, a study based on a sample can be more rigorous than a study based on the universe. Thus sampling is used in practice for a variety of reasons. A sample study is usually less expensive than a census study and produces results faster.

Steps in a sampling process

The flow chart given below shows how sampling is typically done, in a step by step process.

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Step 1	Identify and define Target Population
Step 2	Select Sampling Frame
Step 3	Choose Sampling methods
Step 4	Determine Sample Size
Step 5	Collect the required Data

Let us take an interesting case study and apply these steps to perform sampling. We had General Elections in India a couple of years back. You must have seen the public opinion polls most news channel were running at that time:

These opinion poll results were predicted not by considering the views of all 900 million voters of the country but only a fraction of these voters. Let us see how it was done.

Step 1-Define target population: The first stage in the sampling process is to clearly define the target population. So, to carry out opinion polls, polling agencies consider only the people who are above 18 years of age and are eligible to vote in the population.

Step 2-Develop sampling frame: Sampling Frame – It is a list of items or people forming a population from which the sample is taken. So, the sampling frame would be the list of all the people whose names appear on the voter list of a constituency.

Step 3-Choose the sampling method: Generally, probability sampling methods are used because every vote has equal value and any person can be included in the sample irrespective of his caste, community, or religion. Different samples are taken from different regions all over the country.

Step 4-Decide the sample size: Sample size is the number of individuals or items to be taken in a sample that would be enough to make inferences about the population with the desired level of accuracy and precision. Larger the sample size, more accurate our inference about the population would be. For the polls, agencies try to get as many people as possible of diverse backgrounds to be included in the sample as it would help in predicting the number of seats a political party can win.

Step 5-Collect Data from the sample: Once the target population, sampling frame, sampling technique, and sample size have been established, the next step is to collect data from the sample. In opinion polls, agencies generally put questions to the people, like which political party are they going to vote for or has the previous party done any work, etc. Based on the answers, agencies try to interpret who the people of a constituency are going to vote for and approximately how many seats is a political party going to win.

Methods of sampling

There are two broad and contrasting methods of sampling and they are known as probability sampling and non-probability sampling as explained below:

Probability sampling: In probability sampling, every element or member of the population has an equal chance of being selected. Probability sampling gives us the best chance to create a sample that is truly representative of the population.

Non-probability sampling: In non-probability sampling, all elements do not have an equal chance of being selected. Consequently, there is a significant risk of ending up with a non-representative sample which does not produce generalizable results. When the researcher desires to choose members selectively,non-probability sampling is considered.

Both sampling techniques are frequently utilized. However, one works better than others depending on research needs. The chart below lists out these two methods of sampling along with their own sub methods.

Chart 1: Sampling methods and sub-methods
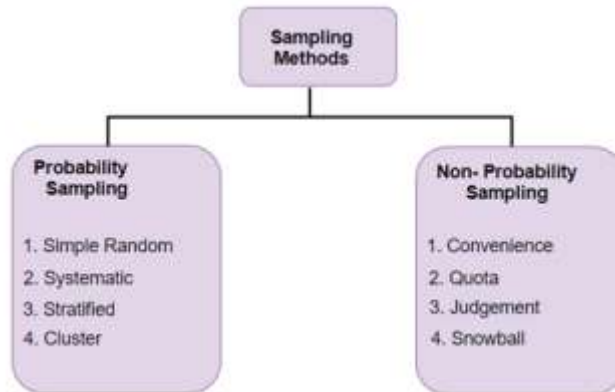
Types of probability sampling

There are four different sub-methods of probability sampling.

1. **Simple random sampling:** This is a type of sampling technique we all come across at some point or the other in our life. Here, every individual is chosen entirely by chance and each member of the population has an equal chance of being selected. Simple random sampling reduces selection bias.
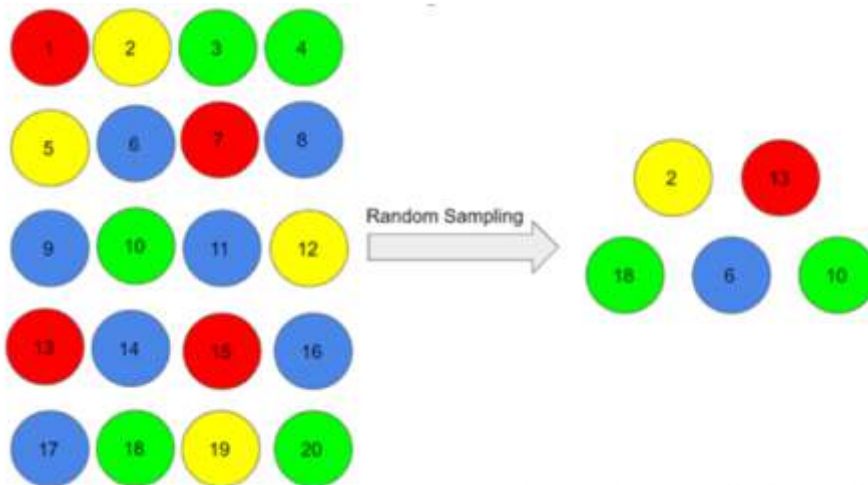
One big advantage of this technique is that it is the most direct method of probability sampling. But it comes with a caveat – it may not select enough individuals with our characteristics of interest.

2. **Systematic sampling:** In this type of sampling, the first individual is selected randomly and others are selected using a fixed 'sampling interval'. Let's take a simple example to understand this. Say our population size is x

and we have to select a sample size of n. Then, the next individual that we will select would be x/nth intervals away from the first individual. We can select the rest in the same way.
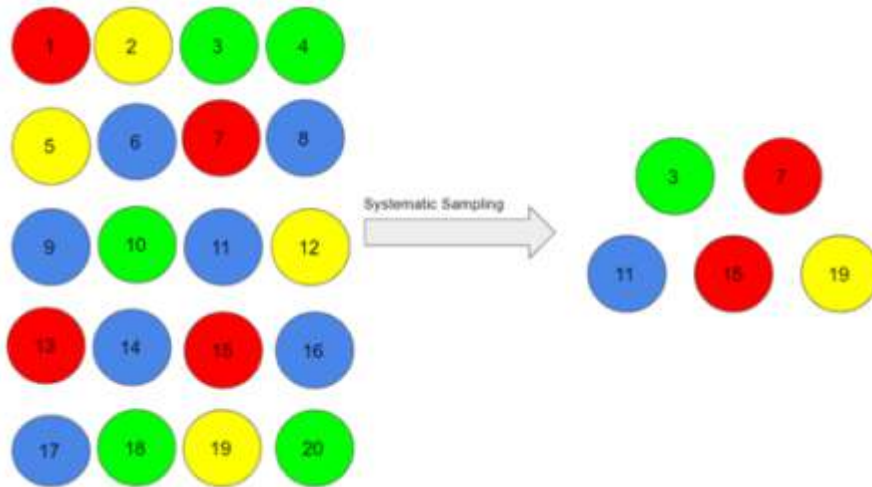
Suppose, we began with person number 3, and we want a sample size of 5. So, the next individual that we will select would be at an interval of (20/5) = 4 from the 3rd person, i.e. 7 (3+4), and so on.

3, 3+4=7, 7+4=11, 11+4=15, 15+4=19 = **3, 7, 11, 15, 19**
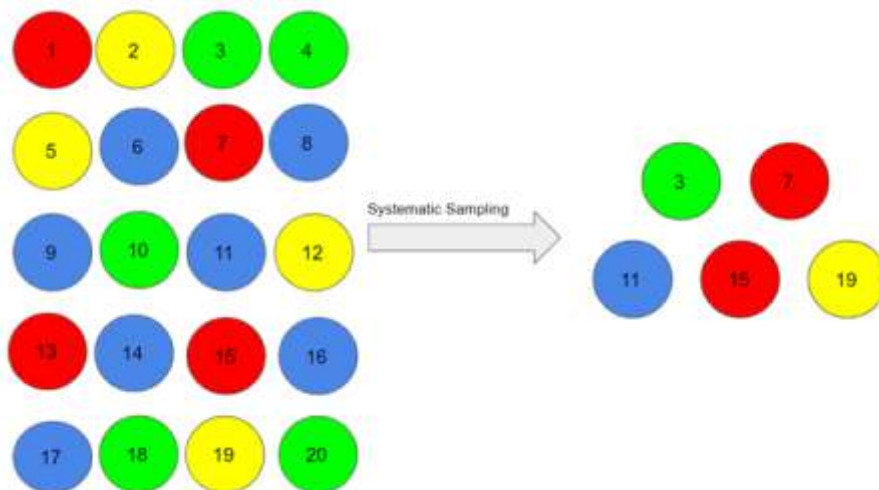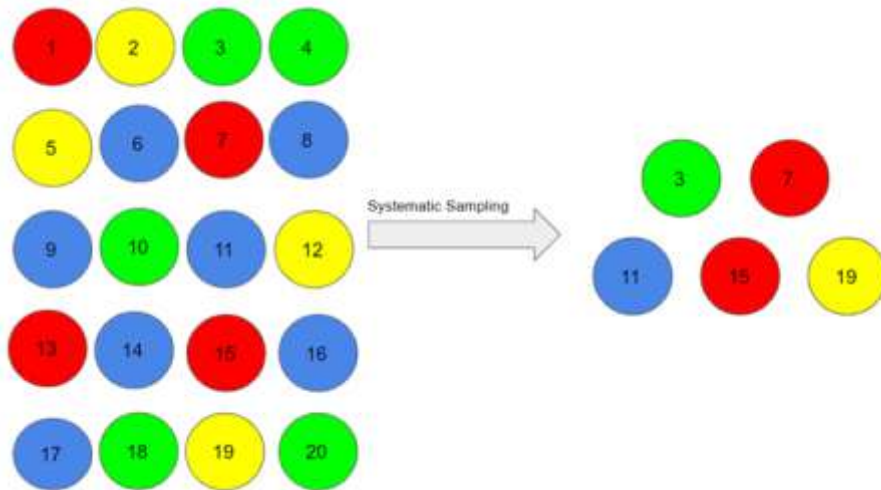
Systematic sampling is more convenient than simple random sampling. However, it might also lead to bias if there is an underlying pattern in which we are selecting items from the population though the chances of that happening are quite rare.

3. Stratified sampling: In this type of sampling, we divide the population into subgroups, called strata, based on different traits like gender, caste, category, etc. and then we select the sample(s) from these subgroups:
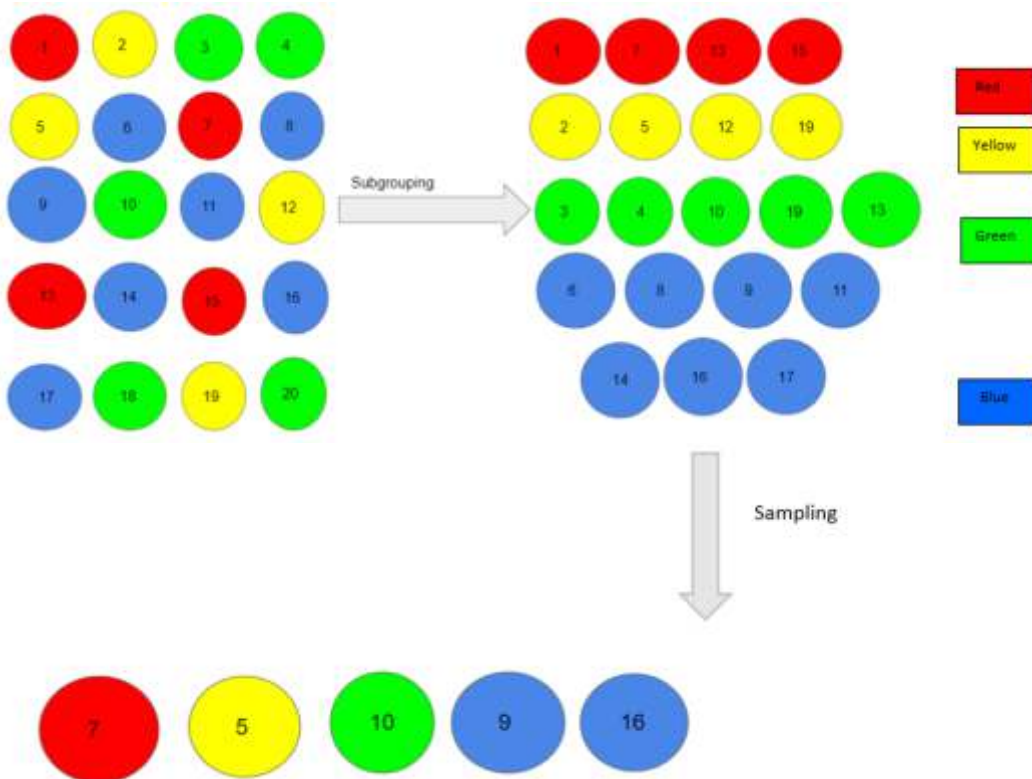
Here, we first divided our population into subgroups based on different colours of red, yellow, green and blue. Then, from each colour, we select individuals in the same proportion of their numbers in the population. We use this type of sampling when we want representation from all the subgroups of the population. However, stratified sampling requires proper knowledge of the characteristics of the overall population and its different strata.

4. Cluster sampling: In a clustered sample, we use the subgroups of the population as the sampling unit rather than individuals. The population is divided into subgroups, known as clusters, and a whole cluster is randomly selected to be included in the study:

Population divided into clusters

Clustered Sampling

A cluster is selected as our sample.
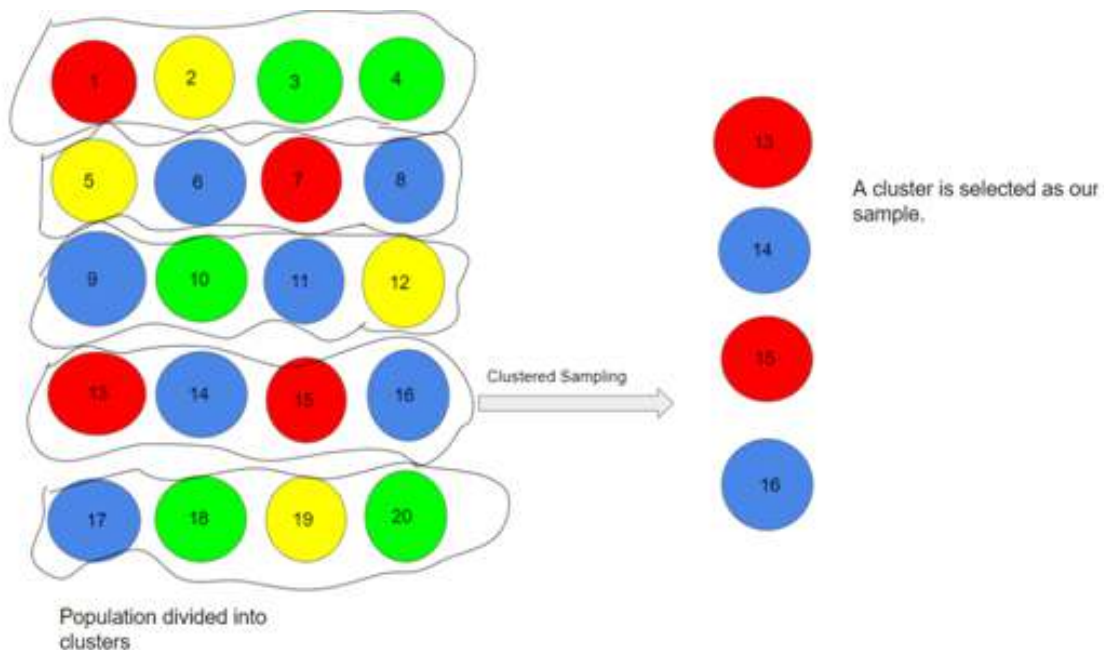
In the above example, we have divided our population into 5 clusters. Each cluster consists of 4 individuals and we have taken the 4th cluster in our sample. We can include more clusters as per our sample size. This type of sampling is used when we focus on a specific region or area.

Types of non-probability sampling

The types of non-probability sampling are as follows:

1. Convenience sampling: This is perhaps the easiest method of sampling because individuals are selected based on their availability and willingness to take

part.Here, let us say individuals numbered 4, 7, 12, 15 and 20 want to be part of our sample, and hence, we will include them in the sample.
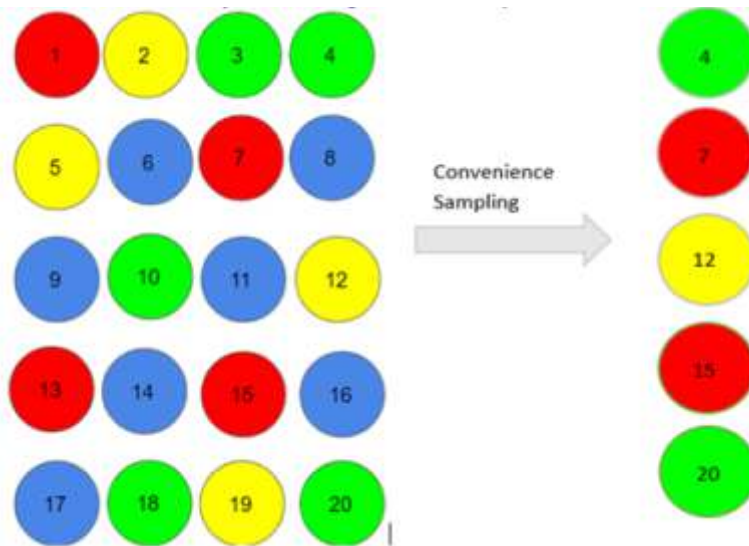
Convenience sampling is prone to significant bias, because the sample may not be the representation of the specific characteristics such as religion, caste, religion or the gender of the population.

2. Quota sampling: In this type of sampling, we choose items based on predetermined characteristics of the population. Consider that we have to select individuals having a number in multiples of four for our sample:
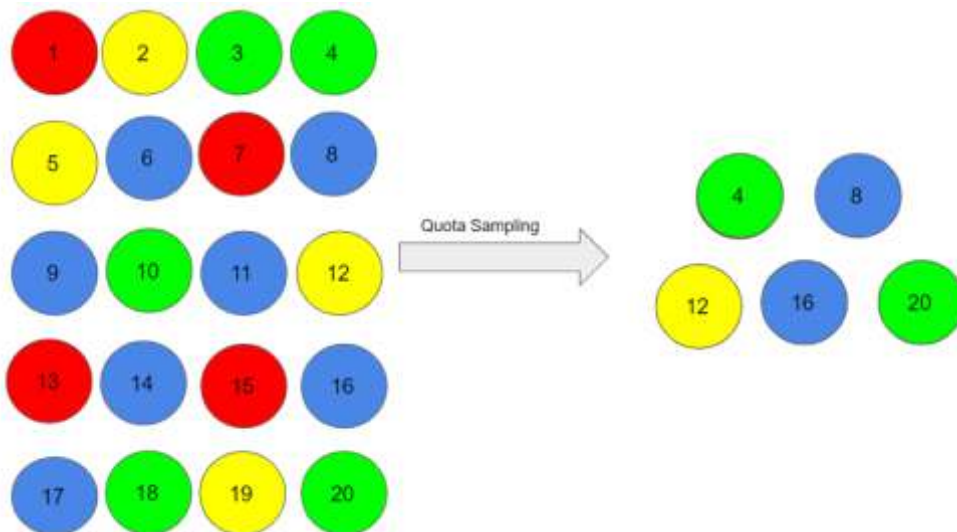
Therefore, the individuals numbered 4, 8, 12, 16, and 20 are already reserved for our sample. In quota sampling, the chosen sample might not be the best representation of the characteristics of the population that were not considered.

4. Judgment sampling: It is also known as selective sampling. It depends on the judgment of the experts when choosing whom to ask to participate.
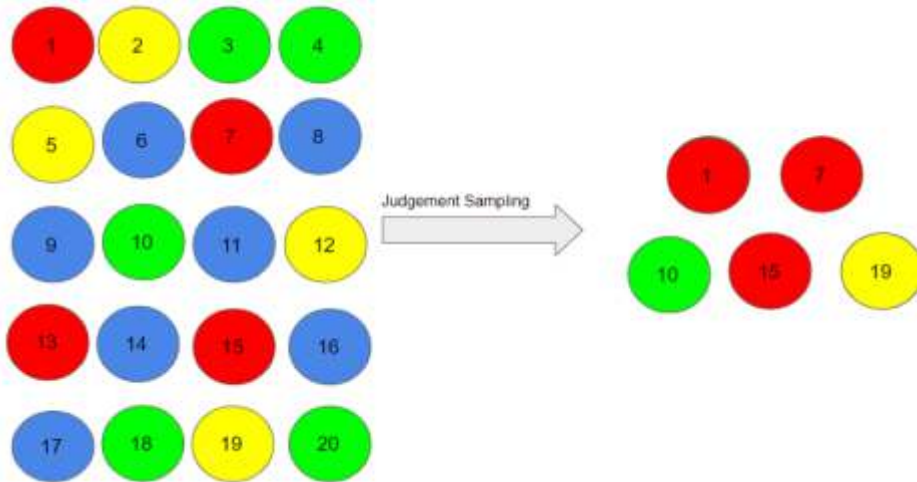
Suppose, our experts believe that people numbered 1, 7, 10, 15, and 19 should be considered for our sample as they may help us to infer the population in a better way. As you can imagine, quota sampling is also prone to bias by the experts and may not necessarily be representative.

5. Snowball sampling: In this sampling existing people (i.e., people already covered in the sample) are asked to nominate further people known to them so that the sample increases in size like a rolling snowball. This method of sampling is effective when a sampling frame is difficult to identify.
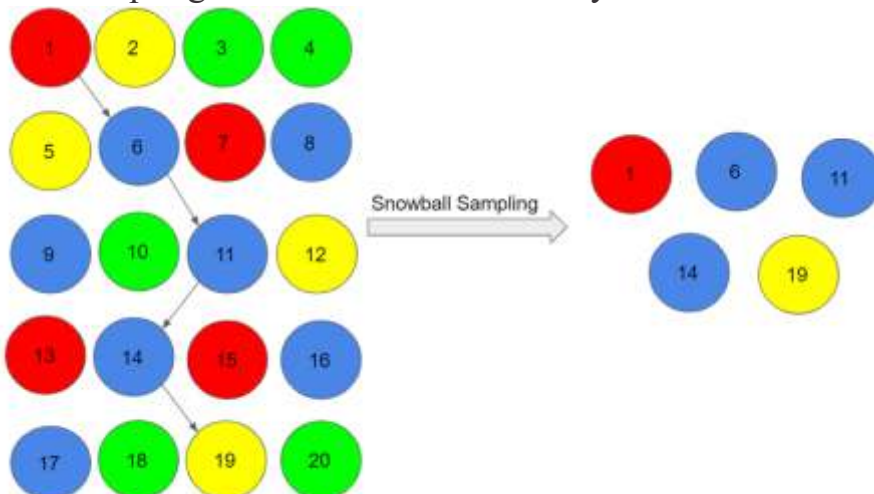
Here, we had randomly chosen person 1 for our sample, and then he/she recommended person 6, and person 6 recommended person 11, and so on.

1->6->11->14->19

There is a significant risk of selection bias in snowball sampling, as the referenced individuals tend to share common traits with the person who recommends them.

Qualitative and quantitative sampling

In addition to the above types of classification we can also classify sampling into qualitative sampling and quantitative sampling as discussed below.

1.Qualitative sampling: The aim of the qualitative sampling is to understand, from within, the subjective reality of the study participants. This will not be achieved through superficial knowledge about a large representative sample of individuals. Qualitative sampling is meant for studying a representative subset of a population. There are three main types of qualitative sampling:

Purposive sampling: Pre-selected criteria related to research hypothesis determines the participants for research, for example, a study on rates of political leanings for individuals who live near a temple, mosque or church.

Quota sampling: The researcher establishes participant quotas before forming a sample**.** Selection of participants that meet certain traits like gender, caste, occupation, age, health, etc.

Snowball sampling: The participants in the study refer other individuals who fit the traits required for the study, to the researcher.

2. Quantitative sampling: The quantitative sampling method is the process of selecting representable units from a larger population. Quantitative sampling enables analysis wherein mathematical, statistical, or computational methods are used for studying the measurable or quantifiable datasets. Qualitative sampling enables study of the quality or quality related attributes of a representative subset of a population. There are three main types of quantitative sampling and they are:

Random sampling: Random sampling is when all individuals in a population have an equal chance of being selected.

Stratified sampling: Stratified sampling is when the researcher defines the types of individuals in the population based on specific criteria for the study. For example, a study on people subscribing to a particular ideology or supporting a political party might need to break down its participants by age, caste, religion, economic status, family type or a few other socio-economic status variables.

Systematic sampling: Systemic sampling is choosing a sample on an orderly basis. To build the sample, look at the target population and choose every fifth, tenth, or twentieth name, based upon the needs of the sample size.

Sampling errors

Quality sampling yields significant research result. However, with the differences that can be present between a population and a sample, sample errors can occur. Therefore, it is essential to use the most relevant and useful sampling method. Appropriate sampling means avoiding the sampling errors. The three most common sampling errors are as follows:

Sampling bias that occurs when the sample does not reflect the characteristics of the population.

Sample frame errors that occur when the wrong sub-population is used to select a sample. This can be due to gender, race, or economic factors.

Systematic errors that occur when the results from the sample differ significantly from the results of the population.

Conclusion

Sampling is a process widely used in survey research in political science as well as other social science. It is used to draw conclusions about populations from samples to save, time, money or efforts required to study huge populations. It enables us to determine a population's characteristics by directly studying only a portion (or sample) of the population instead of the total population. It may also be viewed as a method in which a predetermined number of observations are taken from a larger population (or universe) to understand the nature of the population. The methodology used to sample from a larger population depends on the type of

analysis being performed, but it may include simple random sampling or systematic sampling. Probability sampling and non-probability sampling are the two broad methods of sampling. Both of these have their own sub-methods of sampling. Researchers require imagination and understanding to use appropriate methods and sub-methods of sampling. Understanding of basic statistics and tools of statistical analysis are also important for doing quality research in political science. One should also be aware of the sampling errors and take steps to eliminate them or minimise their adverse effects.

Glossary

Probability sampling: In probability sampling, every element or member of the population has an equal chance of being selected. Probability sampling gives us the best chance to create a sample that is truly representative of the population.

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BUSINESS CLIMATE IN INDIA

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Abstract

The business climate is the economic and professional environment surrounding an industry or group of business enterprises. This includes the government policies and political attitude toward such businesses, their support for labour organizations, and their financial stability, among other aspects. Companies that want to be a part of a good business climate need to work for it. They should be keeping up with taxes, innovating, creating jobs, compensating employees well, and so much more. When evaluating the business climate of a particular company or an entire industry, we must consider several factors. This short article identifies what are the parameters for evaluating the business climate anddescribesvarious components of business climatewith a view to ignite the minds of funding enter-pre-news of today to become business tycoons of tomorrow.

Key words

Business climate, Climate change, Small businesses, Medium businesses, Crowd funding, Social media.

Introduction

The business climate is the economic and professional environment surrounding an industry or group of business enterprises. This includes the government policies and political attitude toward such businesses, their support for labor organizations, and their financial stability, among other aspects. Companies that want to be a part of a good business climate need to work for it. They should be keeping up with taxes, innovating, creating jobs, compensating employees well, and so much more.

Evaluating business climate

When evaluating the business climate of a particular company, an entire industry or an economy as a whole, we must consider the following aspects:

1. Possible effects of inflation

2. Taxation policies as well as practice

3. Relationships between unions, employers and employees

4. Relationships between financial institutions and businesses

5. Healthy working or otherwise of labor organizations

6. Political parties and their attitudes towards businesses

7. Labor market conditions

8. Global business climate

Changing Business Climate

The business climate in India is changing. As technology continues to develop and the desires and preferences of consumers shift, starting a business in the current climate looks very different than it did ten years ago. Therefore entrepreneurs must consider these changes when preparing to enter the marketplace. The more prepared they are for change, the more successful they will be.Businesses that are already in the game should also be aware of these changes if they want to stay in the game. Marketing strategies are changing, and even just the way we buy and sell goods is changing. The physical storefront is becoming a thing of the past as more and more online companies pop up.Different industries are affected in different ways by changes coming up in the business climate. It's important to have a good understanding of your industry and the specific changes that affect it. Researching business climates is a must for all business owners as well as managers of business.

Here are sixways the current business climate in India is changing and will continue to change in the future:

Growing confidence in the economy

More freelancing support

Less human labor, more robots

Less paper transactions and more online transactions

Climate related technologies assuming increasingly greater importance.

Crowd funding as a new sources of financing ventures

How climate change is affecting businesses

Climate change impacts include changes to our weather, coasts and oceans, and the natural and built environment. These impacts are initially localized but get globalised sooner or later. The way they impact your business will vary depending on your industry, global location and vulnerability such as what your business facilities are made from, and the services it depends on.Adding more complexity to this equation are the impacts of climate change from multiple natural disaster events; including exposure to drought, bushfires, and floods in short succession.

As each business is unique in its location, operation, and supply chains, it is important to identify the specific climate risks to your business sector and location, and plan accordingly.

The impacts of climate change on business can be direct or indirect.

Direct impacts such as physical damage from floods or bushfires, or forced closures affect your business directly.

Indirect impacts are the flow-on effects of climate change or extreme events, such as a supply chain being disrupted by extreme weather, or income being reduced. An example of this is how the South Coast economy in the US was impacted as a result of reduced visitor numbers following the black summer bushfires of 2019–20.

Effects on medium sized businesses

For medium business, climate risk exposure varies and will depend on the specific industry and vulnerability. Medium sized business may experience various climate-related risks, such as interruption to supply chains, challenges of comfort and energy efficiency in buildings and other operations, and climate-related liability. Understanding employee health and wellbeing and how this being impacted by climate change is also important.

Businesses in the agricultural, forestry and fishing sectors are most at risk of catastrophic climate change impacts. These businesses operations rely on the natural environment. However, other sectors such as retail trade, tourism and manufacturing are also highly exposed, with all types of business at risk of the effects of climate change.

Effects on small businesses:

Small businesses are the lifeblood of the NSW economy. They provide essential services, support employment in local communities and contribute to the identity of the places we love. When small businesses are impacted by climate change, the effects can be felt by the broader community.

The effects of climate change, including extreme weather events, can be highly disruptive to small businesses. Climate change is increasing the frequency and severity of weather events. This adds extra pressure to businesses as they may be exposed to multiple extreme events within a short time, such as drought, bushfires, and floods. The impacts of these vary depending on the business location, industry, and its vulnerability.

Challenges of Business Climate

The Business Climate Challenge has three main pillars:

1. Challenge businesses to lower energy use:

Making businesses commit to a 10% reduction in building energy consumption within the first year.

Energy audits and net zero pathways provided to help businesses set 2024 targets (aspiration of 30% energy reduction – dependent on businesses' capacity to achieve further reductions.

Medium-sized offices are priority target, but participation is open to other businesses.

Participation requires buy-in from key stakeholders (building manager and landlord).

2. Support businesses in taking action:

Energy audits and follow up with technical support team to identify top measures and build a long-term road map to net zero.

Bespoke support on light touch actions, scoped in partnership with building management team.

Ongoing coaching to troubleshoot issues and track progress.

Cohort-wide trainings on relevant topics (engaging occupiers, EPC contracting, deep retrofits, etc.).

3. Recognize businesses who meet/exceed targets:

Businesses will be listed on London.gov.uk webpages.

Recognition Ceremony with the Mayor of London.

Social media recognition and campaigns.

Participation stamp and acknowledgement.

The Business Climate Challenge is being run in partnership with nine business engagement partners. Business engagement partners are business membership organisations such as Business Improvement Districts (BIDs) and Climate Change Alliances. These organisations have a unique role and opportunity to support their members in addressing urgent climate and cost-of-living needs, and driving net zero efforts at the local level.

Partners will manage recruitment, engagement, and communications with participants for the duration of the Challenge. The BCC will deliver cohort-wide activities with business engagement partners to maximise peer-to-peer learning opportunities for their membership, motivate action, and share learning London-wide. Each partner will recruit a cohort of 20 to 50+ businesses from their membership and create local knowledge-sharing networks on estate decarbonisation.

Conclusion

The business climate means the economic and professional environment surrounding an industry or group of businesses. It includes the government policies

and political attitude toward such businesses, their support for labour organizations, their financial stability, international headwinds and tailwinds,among other aspects. Companies that want to be a part of a good business climate need to work for it. They should be keeping up with taxes, innovating, creating jobs, compensating employees well, and so much more. When evaluating the business climate of a particular company or an entire industry, we must consider several factors. This short article has identified what are the parameters for evaluating the business climate and describes various components of business climate.

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