



Survey Research: Descriptive and Analytical Power, Types and Usages

Muhammad Ahmad Sheikh¹, Dr. Faiza Bajwa², Muhammad Jawed Aslam³ & Basim Mir⁴

¹ Assistant Professor, School of Creative Arts, University of Lahore. Email: ahmed.sheikh@soca.uol.edu.pk

² Lecturer, Center for Media and Communication Studies, University of Gujrat, Pakistan.

Email: faiza.bajwa@uog.edu.pk

³ Associate Professor, UMT, Lahore. Email: jawed.aslam@umt.edu.pk

⁴ Assistant Professor, School of Creative Arts, University of Lahore. Email: basimarsheedmir@hotmail.com

Abstract

In the big horizon of academic research survey methods serve as the foundation for producing trustworthy and dependable information. The paper investigates into the various methodologies employed in research, elucidating their fundamental principles, applications, and implications. By critically examining qualitative, quantitative, and mixed methods approaches along with to provide a comprehensive understanding of how researchers design studies, collect data, and analyze results in a meaningful manner. Besides, this article concentrate on survey research as one of the most popular amongst academic circle, research scholars and organization method of conducting research so that the reader can critically assess the appropriateness of the results drawn from survey research studies.

Keywords

Survey Methods, Quantitative Research, Qualitative Research, Questionnaire, Data Collection, Scale

Introduction

Surveys are conducted all over the world. With the purpose to collect information from public regarding critical issues, politic, foreign-policy formation, trade ties with other countries for sake of opinion formation and decision-making. According to (Biemer and Lyberg, 2003), surveys can only effectively combat the recognized causes of survey error if they are properly planned and executed. In a world that is changing, what exactly do these requests mean? Survey research involves adapting to the rapid changes in socio-technological fields. People respond to survey requests and answer survey questions differently when new methods of conducting surveys take the place of older ones. The increasing significance of online surveys, access panels, and mobile devices such as smartphones, tablet PCs, and mobile phones serves as an example.

The combination of survey and interaction modalities presents unique issues.

A newly or an established company or organization are interested to find out it strength and weakness of their product of working reput. To obtain the reliable result they conduct survey.

For this purpose they use different strategies to conduct required studies. Majority of companies, organization and media outlet use online method using pull and push technology. Through very well organized questionnaires. Keeping in view they develop new strategies for their businesses.

Surveys are extensively used method in social science to collect information and specific data in form of verbal and non-verbal communication, observation data in a variety of areas, such as health sector, in community development programmes, traffic issue and marketing. They entail posing a series of questions to a sample of participants in order to collect both quantitative and qualitative data.

Understanding Survey and Survey Research

Vaus, D. (2013), in his book *Surveys in social research*, opined that surveyor any kind is methodical method for gathering data of interest It could be attitudes, or behaviors of a larger population. De

Vaus emphasizes that surveys are used to gather quantifiable data, allowing researchers to make generalizations about the broader population. According to him surveys are used in form of questionnaires and interviews format basically generate quantitative data that can later be analyzed statistically to find relationship between variables. De Vaus also caution researchers that survey methods are good for many reasons but its Possibility for Interconnection cannot establish cause and effect relationships due to their observational nature. Discussing the ethical Deliberations De Vaus stresses the aspect privacy which may potentially damage the reputation of respondents

Types of scale used in Survey Research

Types of scale used in survey Research: While compiling this term paper I gone through another book "*Survey Methods in Social Investigation 2d ed.* Written by Moser, C. A., & Kalton, G. Moser The book covered all aspects from planning to the drafting of the final report. Moser, C. A., & Kalton, G. (2017), discussing the Types and use of scales in survey research, he explain following categories.

Nominal Scale

This scale operates at nominal level and categorizes data into distinct categories, but have no meaningful order. Each category is unique, and there is no implied hierarchy. This scale is primarily used for labelling variables without any quantitative value. Common example is gender (male, female)

The Ordinal Scale

The ordinal scale categorizes variables into distinct groups that can be ordered or ranked. While the scale indicates the order of the values,

This scale does not provide information about the magnitude of differences between them but divides variable into distinct groups in their ranks and orders. Example of this category is socioeconomic hierarchy. (Low, middle, high)

The Interval Scale

This scale does not have true zero, which means that while you can compare the intervals between values, you cannot make final judgements. IQ scores is an example. .

Ratio Scale

This is most superior scale and possessed all characteristic of other scales with the addition of a true zero point. This allows for meaningful comparisons of both differences and ratios between values. Example includes Income, age,

Likert Scale. The Likert scale identifies the degree of response like:

Strongly agree – Agree – Neutral – Disagree – Strongly disagree

Then Guttman and Semantic Differential Scale have their own Unique Characteristics in Survey

According to (Moser & Kalton, 2017) these scales lay the foundation of data measurement in survey research, each serving specific purposes contingent to the types of the information needed and what are the data and the aims of the research study. The survey method can be used for descriptive, exploratory, or explanatory research. More commonly survey research use quantitative approach to collect information a well-defined set of principles from a sample of respondents (Hassan et al., 2023). In the business, it has probably been one of the most employed methodology for a number of years because of its many benefits and advantages when it comes to data collection and analysis.

Different scholars have different opinions about survey, but, generally, survey method is process of gathering data by the researchers from their respondents in the area, he/she is interested in. After receiving feedback from respondent, researcher evaluate it and draw conclusion.

The data collected from surveys is statistically examined by the researcher and finally he/she infer draw eloquent result.

Survey is a quantitative research by nature which is typically used to gather data from a sample of respondents. Because of all the benefits and benefits it offers while gathering and evaluating data, it has probably been one of the most popular approaches in the field for a number of years. (Blue Taha)

Some Scholars Views

According to (Creswell, 2012), in quantitative research, survey designs refer to methods whereby researchers use a sample for the population and conduct survey in order to describe the attitudes, views, behaviors, or features of the population.

Ponto (2015), in his study “*understanding and Evaluation Survey research*” defines that decades ago, survey research was a complicated procedure with regard to collecting data from diverse population and localities, but, with the advancement in technologies conducting survey research became both formal and informal. The research's main goal is to collect information in a more efficiently way from the target audience. Feedback from sweeping population (Census) is classic example of survey.

According to (Check & Schutt, 2012, p. 160) the progression of assembly information through question replies from a respondent. In survey research many approaches of data collection and instrumentation are possible.

(Singleton & Straits, 2009) opined that usually research adopt three techniques are used by researchers. Open-ended questions, quantitative research strategies (like using statistical data rated in items on questionnaires), or both (i.e., mixed methods). Numerous Surveys techniques are extensively being used in many disciplines of psychology and social science to gain information in social and psychological context with the purpose to describe and investigate anthropological conduct.

Floyed. J and Fowler (2013) opine as, “Survey is a practical procedure to provide statistical description of people by asking question usually from a sample.

In its broadest sense, the term "survey" refers to thematic data collection from a representative sample of a larger population. Survey statistics are shown in form of percentages, means, measures of association, and related areas at the end of result of surveys. Some organizations submit survey report in descriptive format as well. Commonly survey is labelled as the practice of conducting research by distributing surveys (plans) to selected respondents. The information gathered from these surveys is subsequently analyzed using statistical methods to determine significant research findings.

Use of Survey Research

The survey is commonly used in all social sciences, using different data collection techniques.

According to Neuman Surveys have consist of in interviews, email, and online phone-in format and via Internet opinion polls, and various types of questionnaires. Neumann (Social research method: Qualitative and Quantitative Approaches. (Neumann P-316-317).

According to (Isaac & Michael, 1997) survey research is used to answer questions that have been initiated to resolve issues of observed phenomena that have been modelled to measure needs of certain community and set goals to resolve it.

Kenneth A. Rasinski Conducting surveys are a popular and active method for investigating the behaviours and emotions and needs of different clusters in communities.

Survey methods contain wide range of approaches for acquiring knowledge about a person's behaviour, views, his/her internal and external rational, knowledge, and situation. Surveys are also used to research institutions and organizations, evaluating their finances, policies, and cultural aspect (Good or bad).

Quantitative Survey Research

It is frequently characterized as a quantitative approach that uses a sequence of survey questions to gather data from a group of respondents. This type of research involves collecting and examining data from respondents.

Types of Survey Methods

Given below are three main categories of survey methods,

Online Survey

It is a popular format in survey research often used today's busy world. Online survey research involves amazingly very low survey expenses and favorite techniques of researcher to collect responses.

1. **Mail Surveys:** Alternative to online is use of email for collecting data provides new opportunities for researchers worldwide (Michaelidou, N., & Dibb, S. (2006). According to Social Science Research Institute a mail survey, the respondents receive the questionnaire, a letter providing an overview of the survey, and a business-reply envelope with the survey's answers, all of which they are free to return. The responders can answer the questions whenever it is most convenient for them, which is its biggest benefit. Additionally, if necessary, images can be employed and quite sophisticated instructions can be provided. A mail survey may have a poor response rate, although this completely depends on the group

being surveyed. It is crucial to consistently provide a follow-up reminder for the survey, via phone call, letter, or resending the questionnaire to those who did not reply.

2. **Telephone Survey:** For many years, telephone surveys have been a widely used tool in traditional research methods. Using a phone to administer a survey has become more popular as landlines and cell phones are widely available to the general public. It provides a productive and economical means of obtaining information from a large number of people on a greater variety of subjects. Phone surveys are based on use an organized questionnaire to collect data from a sample group in a methodical manner. When they need to get public opinion on a subject and keep control over the quality of the data, researchers employ it.
3. **Face-to-Face:** In this kind of survey researcher/ interviewers to speak with respondents face-to-face is face-to-face interviewing. Because interviewers may fully clarify questions, ask question of interest. This survey method makes it possible to investigate complex subject, like marital status cast in certain in some region often undertake in-person, in-depth interviews (Hassan et al., 2024). This method has the quite good feedback and response rate in this method is always appreciated.
4. **Longitudinal Survey Research:** In longitudinal survey research, surveys are administered over a range of time intervals, spanning years and decades. This survey research strategy yields both qualitative and quantitative data across time periods. Respondent attitudes, likeness, and behavior are followed through time in order to regulate the causes of any variations in views or behavior. Assume, for example, a scientist needs to figure out more about how youngsters eat. In such a case, he or she will closely monitor a sample of children for a significant amount of time to ensure the accuracy of the collected data. Typically, cross-sectional survey research follows a longer investigation.
5. **Cross-sectional Survey Research:** A cross-sectional survey is used to gather information from a target audience at a precise time point. Many industries use this survey research method, including retail, education, healthcare, small and medium-sized enterprises, etc. Cross-sectional survey research may be descriptive or analytical.
6. **Case study survey:** In case studies, survey methods are crucial instruments for obtaining comprehensive data necessary for comprehending and analyzing complicated problems in the context of real-world situations. In case studies are essential tools for gathering detailed information to analyze and understand complex issues within their real-life context. Some of the crucial points are given below. According to (Creswell, J. W., & Creswell, J. D. (2017). Researcher must know the case, whatever it's and design his questioners accordingly. For case studies when gathering data the case's characteristics, the study aims, and the resources at hand all influence the approach chosen.

Survey method's fundamental component is a methodical strategy to gathering information from a pre-selected sample of respondents. This information is utilized to measure opinions on numerous subjects, make judgments, and obtain insights. The attractiveness of this kind of survey is its adaptability. Researchers have many options available for example, with online platforms, in-person encounters, or even the traditional paper-and-pencil method. Dubey, Shivani (2024).

Combining several approaches can increase the validity and dependability of the results and provide a deeper insight of the situation. Researchers can systematically collect, evaluate, and interpret data by incorporating these survey approaches, which will help them draw solid findings and useful insights.

What is the Purpose of Surveys? Utilizing survey research is common for:

- 1) **Social Research:** investigative the characteristics traits and experiences of several social groups.
- 2) **Market research:** To learn what consumers believe about product, services, and businesses
- 3) **Medical /Health research:** To collect data from patient about symptoms and treatment.
- 4) **Politics:** To develop relation with countries and lobbying for certain agenda.
- 5) **Psychology:** Learning dispositions, actions, and individuals sentiments. Investigating trends, which include surveying the same sample multiple times over a longer period of time, as well as cross-sectional research, which collect data only once (more on this in section 1.4). (McCOMBS, 2019)

- 6) A few crucial considerations must be made when selecting the best survey method: Selecting the appropriate survey technique is based on a

A few crucial considerations: A few crucial considerations must be made when choosing the best survey method:

- Who is your intended audience?
- To what extent are you willing to spend money?
- What are you hoping to get out of the data?
- And more importantly the timeline and prior intimation to respondents.

The survey method of research provides researchers with a range of options for recruiting people, gathering data, and deploying different instrumentation techniques.

How to Conduct Survey Research: There are several steps to conduct a survey. According to Surveyplanet (2022), some of them are given below.

1. **Identify research goals and objectives:** By identifying goals, ask yourself, that what would be your audience? What sort of what type of data am you need? Resources availability and logistic.
2. **Define your Population:** Is your goal to confine to specific or you are going to collect data from general population? You must know the ethics and cultural aspect of that specific areas where you are going to conduct survey. Narrow down to a specific population segment if its board.
3. **Decide on the type of Survey Method:** A researcher must know the format of data collection. Additionally methods to conduct a survey depend on sample size, its geographic location and questions. Keeping in view above factors, a researches can confidently move forward and apply various methods according to need. Which suits him/.her like an interviews or in-person surveys or online surveys are the easiest way to reach a broad audience or Mail surveys etc.
4. **Design and Write Questions:** An effective research relies heavily on survey questions. Therefore, it is important to take into account a number of aspects when choosing what questions to ask and how to ask them.
 - Scale questions
 - Demographic questions
 - Open-ended Question (When & where required)
 - Short-ended Question (Where limited information is required, Yes-or-no questions)
 - Likert scale questions
 - Questions types that involve rankings.
 - Demographic questions: (survey questions pertaining to demographics. Data about demographics is essential to a survey's performance. It provides information about age, gender, race, income, and location).

Surveys can be circulated personally, via friend and colleagues, using cell phone, via email, or with an online form.

Analyze the Collected Data: Different data analysis methods should be used depending on the type of questions utilized For instance, a bucketing strategy—which adds labels to each response and groups them into categories—is necessary for answering open-ended questions. Closed-ended questions, for instance, require statistical analysis. Utilize a qualitative technique (such as theme analysis) for interviews, and analysis tools (such as mean, median, and mode) for Likert scale questions. Cross-tabulation and filtering are two more useful analytical techniques. Create a report based on survey results: Finally, create a report. All the data which was examined must be decoded into components of information, (called units) that directly linked to the objectives aims and the related areas which was identified before start of survey. (Surveyplanet (2022).

Steps in Conducting a Survey (From Neumann Book P-320)

For a good survey, researchers start with a hypothetical supposition and then researcher decipher divide into following stages

1. Developing a tool is the first step, this involves making survey form and enter questions
2. In 2nd phase prepare interview schedule.
3. Move ahead with linear flow that is adopt logical process. (Consider Variables are first and then move to operationalized stage

4. More importantly make sure the quality, clarity and completeness remained intact. Given below is detailed systematic procedure.

Step-1 includes:

- Create suppositions.
- Select the type of survey (phone, mail, or interview).
- Compose survey inquiries.
- Select the categories for responses.
- Layout your design.

Step Two

Step-2

- Make a strategy to collect data
- Select best tool

Step 3 includes:

- Choose what would be your target population.
- Make an appropriate sample from population.(sample size)

Step 4 includes:

- Conduct interviews.
- Carefully record data using simple interview technique.

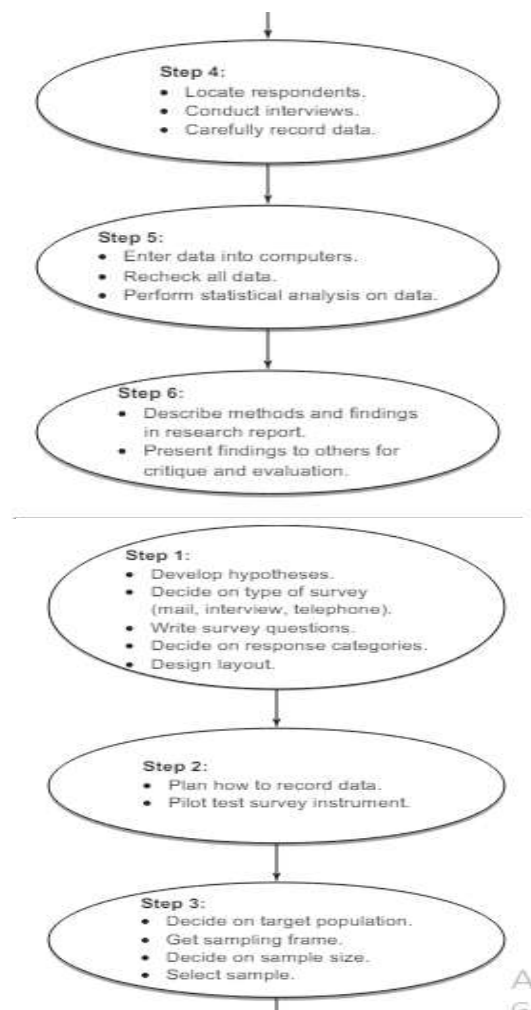
Step 5 includes:

- Put the collected information into computers and analyses it
- Perform statistical analysis on data.

Step 6 includes:

- Make Report.

Procedures



(Courtesy: From Neumann Book P-320)

Why survey methods are popular among social scientists?

1. **Wide Reach:** Surveys can reach a large and diverse population, allowing researchers to gather data from a broad audience, which is essential for making generalizable conclusions.
2. **Less expensive** and within reach as compare to email and face to face survey
3. **Versatility:** You can collect a huge and factual information from targeted respondent
Surveys can be used to collect a wide range of data, from factual information to attitudes, opinions, and behaviors.
4. **Quantifiable Data:** Surveys often produce quantifiable data that can be statistically analyzed, making it easier to identify patterns, correlations, and trends.
5. **Efficiency:** Surveys can be administered relatively quickly, especially with the use of digital tools, allowing for rapid data collection and analysis.
6. **Flexibility:** Surveys can be designed to be simple or complex, depending on the research needs, and can include multiple-choice question and scales.
7. **Anonymity and Confidentiality:** Surveys can be conducted anonymously, which can encourage honesty and reduce social desirability bias among respondents.
These advantages make surveys a versatile and valuable tool for social scientists seeking to gather and analyze data. (Summarized by author of this term paper).

Strength and Weakness of different Survey Methods

Each survey method has its own set of strengths and weaknesses. It depends on the method and objective which research adopts for his/her study. Strength and weakness of survey also depends on the circumstances like, budget, timeline, and the target population. Understanding these factors helps researchers select the most appropriate survey method, ensuring the collection of reliable and valid data. Despite their widespread use and popularity,

Strengths Mail Surveys

- **Wide Reach:** Can target respondents in various geographic locations.
- **Low Cost:** Relatively inexpensive compared to face-to-face and telephone surveys.
- **Anonymity:** Provides a sense of anonymity, encouraging honest responses.

Weaknesses Mail Surveys

- **Low Response Rate:** Often suffer from low response rates.
- **Delayed Responses:** Takes longer to gather responses due to the mailing process.
- **Lack of Clarification:** Respondents cannot ask for clarification on questions.

Strengths of Telephone Surveys

- A researcher get real-time response from respondents and can collect data quickly
- As compare to mail survey response rate is always high.
- Researcher can clarify his question if a respondent could not understand it properly

Weaknesses of Telephone Surveys

- **Costly:** More expensive due to labor and telephone costs.
- **Limited Reach:** Access limited to people with telephones.
- **Intrusiveness:** Perceived as intrusive, leading to potential respondent reluctance.

Strengths of Face-to-Face Surveys

- **High Response Rate:** Typically achieve the highest response rates.
- **Depth of Data:** Allows for more detailed data collection and observation of non-verbal cues.
- **Clarification and Probing:** Interviewers can clarify questions and probe for more in-depth responses.

Weaknesses of Face-to-Face Surveys

- It is expensive and need lot of time to arrange interview.
- Logistic issue if researcher intends to conduct survey in remote areas where infrastructure hurdles come on way
Geographic Limitations: Limited by the geographic location of the respondents.
- In cultural context, ethical issue may arise.
- Interviewer Bias may occur if researcher influence responses.

Strengths of Online Surveys

- **Cost-Effective:** As compare to other survey methods Online survey is cheap. Proximity is beauty of this type of survey

- Wide Reach: Because of its global reach it has become most popular among business organization, education sector. Work good with summative approach. (The goal of summative valuations is to offer students with a way to demonstrate their knowledge and skills, and to give them feedback on how well they've met the course's scholarship goals.
- Flexibility: Respondents can complete surveys at their convenience.

Weaknesses of Online Surveys

- Digital Divide: Excludes those without internet access.
- Low Response Rate: Often experience lower response rates due to survey fatigue.
- Data Quality: Potential issues with data quality due to non-serious responses.

Conclusion

- Survey research produced within a positivist approach which applies to all area of social science.
- Bornman, E. (2009). Surveys generate new knowledge and information that is integrally statistical in nature. Surveys are quantitative beasts” (1996:389). Maximum surveys concerned with the large population (Respondents), who possesses different kind of attitude, belief and characteristics.
- Because of this nature, surveys are considered the best suitable method when researcher has intention to explore new thing or change. Survey provides us in-depth knowledge as it is based on descriptive information with testing of hypothesis if it encompasses multiple hypotheses in a single survey. Social research method: Qualitative and Quantitative methods W. L Neuman 7th edition (P-316-317)

Surveys have the potential to give us meaningful, precise, and dependable data, but doing so requires careful planning and significant work. A careful consideration leads your result to greater reliability where as if survey conducted with casual approach it may lead devastation of your findings. (Ahmad Sheikh)

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