RESEARCH METHODOLOGY: Sources and Techniques of data collection.

Introduction

Research methodology process includes a number of activities to be performed. The activities are arranged in proper sequence in order to conduct a good research. Data collection happens to be one of the most important step in research because inadequate data would lead to incomplete and meaningless research work. Therefore a proper data in needed to conduct a research. Different types of research studies needs different methods of data collection.

Sources of Data Collection

For the collection of data we need a proper and a trusted source from where we can collect the information to incorporate in our work. There are two sources of data namely, *primary and secondary* data. For the study purpose both the primary and secondary data are used. These data can also be used in combination as per the need of the study.

1) *Primary data: it is a data collected by a researcher from first hand sources using methods like survey, interviews and questionnaires. Primary data are original and its degree of accuracy is high because they are collected by a concerned and reliable party.*

Primary data collection can be further analysed into two segments namely: quantitative and qualitative research methods.

•Quantitative research method: it is presented in numbers and require a mathematical calculation to deduce like methods of correlations, regression, mean, mode and median.

•Quantitative research method: it is based on the non quantifiable elements like emotions and feelings of the researcher.

2) *Secondary data: it is a data that is collected by a researcher using variety of secondary and available sources like books, journals , newspapers , government records, diaries, and data in electronic forms. Secondary data is much cheaper and faster to access.*

Techniques of primary data collection

1) Interviews : an interview is a face to face conversation between two individuals with the sole purpose of collecting relevant information to satisfy a research purpose. Interviews are of different types namely structured, semi-structured and unstructured.

2) Questionnaire : this is the process of collecting data through an instrument consisting of a series of questions and prompt to receive a response from individuals it is administered to. A number of

questions usually in printed or electronic form are to be answered by the individual.

3) Telephone, mobiles and facsimile: telephone and other devices can be used for collecting data verbally and written on fax by respondents located away from the researcher.

4) Mail: for collection of data from the respondent located at a long distance and do not have any communication facility can be contacted through mailed questionnaire. One disadvantage of this instrument is that the response rate is very less due to lack of interest in the topic of respondent and low literacy rate.

5) Survey: it is used to collect quantitative information about items in population. The respondents are contacted by the researcher personally , telephonically or mailed. The data collected from surveys is then statistically analysed to draw meaningful conclusions.

6) Observation: it is a complex research method because it often requires the researcher to play number of roles and use number of techniques , including his/her five senses to collect data. The observer puts himself in the actual situation and watch carefully and on the basis of his knowledge, skills and experience he collects the data without contacting the respondents.

7) Focus groups: is a small and demographically diverse group of people whose reactions are studied in guided or open discussions on a topic. The researcher involved asks open ended questions to a group of individuals usually ranging from 6-10 for their feedback.

Techniques of secondary data collection.

As said above, secondary data is acquired through readily available sources, they are comparably easy to access especially with the advent of electronic media and the internet sources.

1) Books: they are the most relevant and the traditional way of data collection. The researcher can either access the library or purchase books which is to be studied for research purposes.
2) Journals : they are becoming more important than books these days when data collection is concerned. It is regularly updated with new publications on periodic basis. So researchers who wish to add freshness in their topic would definitely like to explore journals.
3) Bots : there are lots of data online and it may be difficult for researchers to browse through all these data and find what they are actually looking for. In order to ease this process of data collection , programmers have created bots to do automatic

web scraping for relevant data. These bots are software robots programmed to perform some tasks for the researcher.

4) Internet enabled devices: this could be mobile phones, PC, tablets. That has access to internet connection. This is a modern way of data collection. They are used to access books, journals, publications, news etc.

5) Podcasts: they are gradually becoming very popular these days and a lot of people listen to them as an alternative to radio. They are more or less like online radio stations. Information is usually shared during podcasts and researchers or listeners can use it as a source of data collection.

6) Government records : are a important and authentic source of secondary data. They useful in marketing, humanities and social sciences research. The researcher can access government information to collect genuine data for his/her research.