

The Nature of Quantitative Research

The basic characteristic of quantitative research is expressed as exhibiting many of the features of a natural science approach.

Quantitative research is associated with a number of different approaches to data collection. Particularly in sociology, the social survey is one of the main methods of data collection which embodies the features of quantitative research. The survey's capacity for generating quantifiable data on large numbers of people are known to be representative of a wider population in order to test theories or hypotheses has been viewed by many practitioners as a means of understanding many of the ingredients of a science. Most survey research is based on underlying research design which is called 'correlation' or 'cross sectional'. This means, that data are collected on a cross section of people at a single point in time in order to discover the ways and degrees to which variables relate to each other.

Survey and experiments are probably the main designs of quantitative research but three of others like, the analysis of previously collected data; structured observation and content analysis (the quantitative analysis of the communication content of media such as news papers) are for the sake of completion.

Quantitative research is, then, a particular type which was a special language which appears to show some similarities to the ways in which scientists talk about how they investigate the natural order- variables, control, measurement. This overview reflects the tendency for quantitative research to be supported by natural science model, which means that the logic and procedures of the natural sciences are taken to provide an epistemological standard against which empirical research in the social sciences must be evaluated before it can be treated as a valid knowledge.

The reason why students of social sciences borrow the approach of natural scientists whose subject matter appears to be so different is, in part, the largest success of the sciences this century in facilitating our understanding of the natural order has probably led a part. And the view of writers subscribing to the doctrine of positivism that the natural sciences provide a standard against which knowledge should be measured. Here the article does not give more emphasis on this speculation, to examine the precise nature of scientific method and the notion of positivism.

There are also some preoccupations in the quantitative research. The researcher preoccupied with the following variables such as, concepts and their measurement, causality, generalization and individualism.

Concepts and their measurements are central to quantitative research that means, there is a much concern about technical requirements of operationalisation.

To do any research we must be able to measure the concepts we wish to study. The quantitative research noted that, concepts have to be rendered observation or measurement. This idea forces us to see two main principles of quantitative research employed in line with the discussion of concepts. These are: phenomenalism and operationalisation. Thus, this article highly emphasize on the importance of concepts for quantitative research.

Causality is the other variable by which quantitative researcher highly preoccupied or viewed to study society in natural science model. The terms dependent variable and independent variable is one of the evidence the researcher employed to see the causal relationship between variables. Experiment and cross sectional social survey designs are the two main approaches to the discussion of causality in quantitative research. The main aim of experimental design for quantitative research is to maximize internal validity, to which the presumed cause (IV) really does have an impact on the presumed effect (DV).It's vital for quantitative research because it controls extraneous variable. Survey also helpful to collect data by using questionnaire and interview from a sample of individuals and also to see the associations among variables.

According to the reviewer, quantitative research would have a higher tendency of generalization which is the results of a particular investigation/location by taking representative sample and findings in a legitimate manner.

Regardless of the replicability of findings, it's completely considered as the characteristics of natural sciences even in the viewers of scientists. Quantitative research fully criticizes the qualitative research having difficulty of replicability towards participant observation.

Besides, quantitative research considers the individual as the source for empirical investigation and also as discrete object.

Strength

- The reviewer employs and emphasis on scientific research model rather than speculative analysis.

Criticism

- The artide exdusively tried to view the social world problem through natural science model i.e. experiment and other natural science methods but, in social world there might be some social phenomena which couldn't be measured statistically.

➤ In the contemporary world social researchers in the social world are using both quantitative and qualitative research. However, the reviewer doesn't consider it. Moreover, the social scientists consider the quantitative research as cost effective and time saving.

General views of the assigned team

If we, the group members, were in a place of the feet of the reviewer we would prefer to use both the quantitative and qualitative research methods. Because, even if we believe quantitative research is cost effective, time saving and easily manageable as compared to the qualitative one, the latter also does have equal importance and potential benefit to contribute in combination with quantitative research. In this regard, the outcome of the research is expected to be more accurate if both methods are employed as deemed necessary.

References:

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