



QUANTITATIVE VERSUS QUALITATIVE METHODS IN SOCIAL SCIENCES: BRIDGING THE GAP

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An Overview

Most studies in social sciences are conducted on the basis of certain ideas and then finding ways to understand those ideas. In the course of doing this, social scientists use approaches termed as quantitative method and qualitative method. However, there has been a long-standing debate in the social sciences about the most appropriate philosophical position from which methods should be derived (Smith et al., 1991). One of them is the idea of 'positivism'. Positivists look at the social world as something external and believe that its properties should be measured through objective rather than subjective methods. Objective research is usually associated with quantitative methods although the division is not a clear cut (Crotty, 1998). An early and influential proponent of this philosophy is the French philosopher, Auguste Comte. Basically, there are two assumptions of positivism (Smith et al., 1991). The first one is that reality is external. Following this, it is further assumed that knowledge is only of significance if it is based on observations of this external reality. For an example, a positivist might do research based on the idea that job performance is important. In this case, job performance might be measured through the managers' performance appraisals or the number of achievement awards that they receive for a certain period of time while at the same time relating job performance to a number of external factors such as work values and managerial competencies.

Research adopting the quantitative approach is said to be mostly numerical and is designed to ensure objectivity, generalizability and reliability. One important feature of quantitative techniques is that the process of data collection is distinct from analysis. Some techniques such as interviews or observations can be interpreted either quantitatively or qualitatively. However, techniques like psychological tests and activity sampling are usually used predominantly in quantitative ways. Examples of quantitative researcher includes D.S Pugh who focused hard on data rather than opinions, looking for regularities in the data obtained and then attempting to generalize the data towards a wider population, and also Geert Hofstede who looked at the effects of national cultures on social and work behaviour drawn from 116,000 questionnaires distributed to employees of a large

American multi-national. Hofstede's data was totally quantitative and was also run purely by computer.

Although the positivism paradigm and quantitative methodology are focused by many, there are still others who favoured another paradigm in reaction to positivism. This new paradigm is called 'phenomenology' and it has emerged over the last half century (Smith et al., 1991). This philosophy of research stems from the view that 'the world and reality are not objective and exterior, but that they are socially constructed and given meaning by people' (Husserl, 1946). In other words, the phenomenological approach deals with the way people experience phenomena in the world and define its meaning. Edmund Husserl was a German that led the phenomenological movement. According to him, the true meaning of a phenomenon can only be apprehended subjectively. The phenomenological paradigm uses somewhat different methodological approach compared to positivism. Among the many different variants that are associated with phenomenology is qualitative methodology (Taylor and Bogdan, 1984). Going back to the previous example of research done on job performance, a phenomenologist might be interested in the criteria contributing to each individual's performance. Therefore, the researcher will probably arrange to interview several managers about their perceptions of their jobs, the aspects they find more or less difficult and so forth.

Qualitative studies involve data consisting of various forms of words. Van Maanen (1983) defines qualitative methods as 'an array of interpretive techniques which seek to describe, decode, translate and otherwise come to terms with the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world.' They are less structured, longer and have a more flexible relationship with the respondents so the resulting data have more depth and greater richness of context (Aaker et al., 2001). It also means that the potential for new insights and perspectives is greater. Primary techniques of qualitative methods include in-depth interviews and observations (Smith et al., 1991). One pure example of the qualitative approach is conducted by M. Dalton. From the beginning, Dalton rejected the idea of proposing hypotheses, testing the hypotheses and confirming or refuting them. Instead, he conducted an in-depth observation of

the behaviour of the managers by working as a manager himself within an organization. He gathered the data through his own observations and those of his informants.

The Strengths and Weaknesses

There are many types of quantitative and qualitative techniques available. Both approaches have their own strengths and weaknesses. One of the advantages of quantitative methods is that they can provide a wide coverage of the range of situations. In addition, quantitative approach is fast and economical as a whole. This method is suitable when time and resources are limited. It is also better to use quantitative approach when statistics results are being stressed. However, among the disadvantages of this approach is that it is somewhat inflexible and artificial. It provides very little understanding towards the actions demonstrated by people and as a result, make it difficult to predict any changes in the future. To illustrate, a quantitative research may be able to give a general idea on the relationship of job performance and managerial competencies but, it may fail in providing the details on how the relationship differs for every individuals and why. Thus, it might not be very helpful in generating theories or understanding the issues thoroughly.

The weaknesses that arise from quantitative approach are most of the times the strengths of the qualitative approach. The latter has the ability to look at the change processes over time. By interviewing and observing people, the methods provide a better understanding on people's meanings. With a good amount of valuable information, the data, ideas and issues can be adjusted as they emerge. Due to this, it is a better instrument used by researchers who want to be able to generate theories at the end of their studies. Moreover, by talking to and observing people, the process seems to happen naturally in its own environment rather than in an artificially created surrounding. However, qualitative method is by no means without its disadvantages. Because the process most of the time involves in-depth interviews and observations, data collection can take up a great deal of time and resources. It is then not suitable for studies that require limited time such as a simple project paper. The data compiled by this approach may also look very untidy because of the researcher's lack of control on them. For instance, it is impossible for a researcher to maintain the same discussion when interviewing various individuals. This is due to the fact that humans are often encouraged to talk about unrelated things from time to time. As a result, the analysis and interpretation of the data may be very difficult.

The Mixed Method

There are times that one style of approach is probably the only appropriate manner to study the proposed ideas. To illustrate, a research focusing on the differences of the number of sales of a particular product within a 5-year range will generally adopt quantitative technique while a research focusing on the reasons behind those differences in sales within a 5-year range will probably use a qualitative technique. But when social scientists are faced with the problem of generalising and understanding ideas, they are better off incorporating both approaches whenever possible. In most cases, a research can start with a quantitative approach first in order to gather appropriate facts to gain general understanding on the matter discussed. Following that, a qualitative approach can be carried out so that there will be an in-depth understanding over the generalised facts. However, there are several instances where the reverse can be applied. For research relating to new ideas, it is sometimes appropriate to use a qualitative approach first such as a case study or an observation in order to narrow down the focus of the study. The results from the qualitative study can then be the basis for the questionnaire's development that leads to the quantitative study. The understanding of both paradigms helps identify the ways these divergent approaches complement each other. A good social science researcher should then recognize the benefits of gaining the best of both research worlds through the combination of quantitative and qualitative techniques. Simultaneously, efforts in improving various methods to ensure quality research should be welcomed.

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