



OPINION

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WAR OF THE PARADIGMS: QUALITATIVE VERSUS QUANTITATIVE RESEARCH APPROACH

The word ‘research’ is probably best defined in terms of the output it produces, which may range from the sublime to the ordinary. The output may be novel philosophy, science, invention, exploration, design, measurement or marketing [1].

Broadly stated, the purpose of research is to create and add value to the existing processes, systems and organizations/society as a whole. Having a research orientation is a quintessential aspect for any organization/society to grow and develop. Thus, conducting research, or more specifically how to conduct research, has become a major concern for all those directly or indirectly involved in it.

Researchers are now becoming increasingly concerned with the methodology followed rather than with the means and consequences of any research. Many researchers adopt a quantitative approach because they have difficulty in defining and interpreting the qualitative methods. Ten years ago, Kevin Roberts called researchers ‘vampires’ for they sucked the life out of creativity in both the people and the work they were researching [2].

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For some researchers, qualitative research is a euphemism for focus group interviews and is thus vague, while quantitative research is taken as ‘real’ and ‘concrete’ because of its specific hypotheses and structured analysis.

The Gulf Between the Two Approaches

The two approaches, i.e. qualitative and quantitative, vary in several aspects. Qualitative approaches are broader and holistic in perspective while quantitative approaches emphasize the collection of metric data using validated instruments and then subsequently processing the collected information to evaluate or create new domains of knowledge. Qualitative data are typically open-ended and related to a specific temporal or spatial domain [3]. The reasons why researchers prefer quantitative research to qualitative research are many, some of them being:

1. Researcher’s obsession with reliability and objectivity.
2. It is easier to manipulate quantitative data using modern statistical analyzers.
3. Qualitative research does not distinguish small differences; it may detect minor yet path-breaking problems while quantitative research measures and quantifies every small difference.
4. Quantitative research looks ‘scientific’ and ‘concrete’ while qualitative research provides ‘knowledge’ that does not look like ‘information’ to many people.
5. Small sample size and effort of quantifying results makes a qualitative approach a difficult option.

Whatever researchers may say or think, we feel that the heavy reliance on quantitative techniques leads to placing constraints on a researcher’s thinking process. Too much specificity related to hypotheses and controlled experimental designs compels researchers to shy away from in-depth and unconventional research designs. Furthermore, researchers like to claim ‘knowledge creation’. Unfortunately, many researchers feel that knowledge has to be quantified and it can only emanate from a meticulously selected sample that is further subjected to experimental manipulation of the data. This approach to knowledge is popularly known as the ‘Cartesian approach’. It defines the relationships among data and ultimately deduces causes emerging out of these relationships.

Giambattista Vico, a mid-18th century historian, stated that only people can understand people and that they achieve this through a faculty that can be called ‘intuitive understanding’ [4]. Through the use of empathy and intuitive understanding, knowledge can be produced which may depend upon a different philosophical base but, ultimately, it is knowledge. However, researchers despise this kind of approach. One may read a research paper that contains sophisticated methodology, null hypotheses testing and still at the end may reflect ‘so what’ [5].

Rationale for Qualitative Research

Ultimately, quantitative research may lead to disenchantment concluding from the data that explains trivial amounts of variance and predictable outcomes. One may argue that what one individual perceives an outcome to be can have a totally different meaning to another individual. We feel that instead of being stringent precursors to the tightly designed, number-crunching research to verify a theoretical framework, researchers can become creative and innovative, albeit a little abstract in their research techniques.

In the words of Hackman, qualitative researchers ‘... feel that few research problems are as yet well defined; they are playful, experimental, unconventional and unorthodox’ [6].

We feel that the null hypothesis testing style of research can focus researchers’ attention on obtaining statistical significance rather than on the strength of the relationship between variables. Research done using quantitative techniques makes the statistical tool results speak for themselves. However, in the case of qualitative research, researchers can differentiate themselves in respect to interpretative standards. One can play with qualitative research techniques such as content analysis, focus group interviews, participant observation, to name just a few, in order to bring about diversity in research. One can mix interview technique with archival data or have a reality construction by participant observation. All in all, qualitative research can make an association between the entity being studied and some analogy, interpretation or abstract pattern. Qualitative researchers see beyond the facts already available by ‘discovering how far one’s perspective will carry them and then inventing or falling upon procedures and lines of inquiry to get there... (as) the stuff of which good qualitative research is made’ [7].

As researchers, we feel that some problems cannot be quantified; instead, they should be subject to interpretive analysis. Qualitative work does not suffer from the measurement, operationalization and model specific problems. Predominantly qualitative papers advance theory by building it inductively.

Challenges for Qualitative Researchers

The qualitative researcher faces several challenges as the qualitative research approach is devoid of ‘number crunching’. Qualitative researchers have to work harder to establish the theoretical gap and build a case in a motivating way that makes the research innovative yet important.

1. In the case of a quantitative research, the literature review sets the background for the hypotheses but a qualitative research faces the challenge of keeping the reader hooked throughout the research paper. The researcher has to highlight a significant gap in a current theoretical framework that can lead to the development or extension of a theory.
2. A qualitative researcher has to effectively imbibe research questions in the research paper and also provide a framework for the textual data that follows. Subsequently, a platform for the emergent theory is to be created.
3. Unlike a quantitative paper that primarily highlights, at the end, the implications of the empirical results, the qualitative research has to reserve the biggest punch for the back end.
4. It is critical for the qualitative researchers to offer detailed accounts of their data sources and analysis since a mere reference to the established data sets and statistical tests cannot suffice.
5. Since qualitative data cannot be easily represented in tables, the next most daunting task for a qualitative researcher is to creatively exhibit the richness and depth of the data.
6. Ultimately, qualitative researchers have to articulate their work in a way that makes it appear to be a compelling story – a story that makes the reader experience the journey of the factual phenomenon.

Final Thoughts

During its long history of application in the social sciences, qualitative research has come to be understood and portrayed as the polar opposite of quantitative research – arguably to its detriment [8]. The two research approaches have led to heated debates and discussions about the alleged superiority of one approach over the other. Ultimately, one has to understand that, whichever approach one adopts, the essential element is ‘quality’. If one says that quantitative research is appropriate for capturing a view of the organizational/social world as a concrete structure, one is reducing the role of human beings as a major influencing force on the variables being studied. While quantitative research can be beneficial to study the objective measurable behavior of human beings, qualitative research deals with the emotional aspect of human response. Qualitative research assumes that the ‘world is a concrete structure and admits that human beings, far from merely responding to the social world, may actively contribute to its creation’ [9].

We, as researchers, have applied both qualitative and quantitative approaches; thus we strongly feel that, in research, the right attitude is required for discovering something novel which is certainly different from that required for proof. Since both discovery and proof are required in any program of research, it becomes important to take both approaches, i.e. to regard the qualitative and quantitative approaches as being complementary and mutually important. While a qualitative researcher can be thought of as a sculptor, a quantitative researcher can be called a fact-hungry scientist. Whatever research they indulge in, it should benefit the organizations and society at large. We researchers should not succumb to the never-ending war of the two paradigms, i.e. qualitative research versus quantitative research.

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