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PAPERS

**Research Approaches and Sampling Methods  
Paradox: The Beginning of Marginal Thinking in  
Research Methodology**

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**Abstract:** This paper argues that the current sampling methods selection amongst researchers is based on normative or opinionated reasoning that lacks particularity and focus. Researchers fail to give justifications for the choosing of the sampling method during research process. This paper asserts that it is, not the research approach that determines the sampling method, but the nature of the population of the study.

**Keywords:** research approach; probability sampling method; non-probability sampling methods

## **1. Introduction**

Some knowledge of the times is essential to understand why people thought and acted the way they did. It is true, of course, that many systems of thought exist simultaneously in the minds of many individuals. Intellects tend to develop a wide multiplicity of ideas, ranging from the most sensible to the weird. Ideas irrelevant to society at the time they are presented tend to wither and die, whereas those that are useful and effective in answering at least some questions and in solving some problems are disseminated and popularised, thereby contributing to the stature of their authors.

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Cohen, Manion and Morrison (2018), Cresswell, (2015), Saunders, Lewis and Thornhill (2009), Greener (2008), Singh (2006), Marczyk, De Matteo and Festinger (2005), Kothari (2004) and Dawson (2002), contributed much to the research thinking. Had they never lived, the same ideas would have come somewhat later, perhaps they would not have been expressed so well or so clearly.

Indeed, scholars would have stumbled about a bit more before they found themselves on the intellectual path that they so clearly laid out. However, the science of research is overdue for a thorough revision, the reason being that most of the research underpinnings presented leave room for additional knowledge. To that end, this paper, sets the beginning of marginal thinking in the research methodology by presenting justifications regarding the use of sampling methods given different research approaches.

## **2. Background of the Paper**

Basically, research is undertaken to solve a problem either at micro or macro level. It is, evident that whenever a research is conducted, reality has to be determined so that informed recommendations are proffered. In the determination of reality, different research instruments are applied on different research samples. In this regard, researchers are required to come up with samples from research population to determine reality about a phenomenon. In fact, there are three types of researches namely, quantitative, qualitative and mixed approaches.

It follows, therefore, that there is need to come up with an ideal sampling method that would enhance validity and or credibility of the results and or findings. Despite having a monolithic literature on research issues, there is little evidence from the literature that spells out the ideal sampling method that each research approach should adopt.

In fact, this paper posits that the current sampling methods selection is based on normative or opinionated reasoning that lacks particularity and focus, as researchers fails to give justifications for the choosing of the sampling methods. On one hand, some researchers hold the view that non-probability sampling method falls under the qualitative research approach. On the other hand, some scholars have the view that probability sampling method falls under the quantitative research approach. It is, fortunate that these research authors who made lasting contributions to research body

of knowledge have used terms such as, ‘...usually, more often, seldom, in the choosing of sampling methods. These words are indicative to the inconclusive positions to choosing of sampling methods given different research approaches.

To augment research authors’ effort in the development of understanding research processes, this paper seeks to discuss justifications researchers can use when adopting either of the two sampling methods, probability and non-probability sampling methods, given the three different types of research approaches. In that regard, justifications have been explained through scenario building.

### **(i) Selecting Appropriate Sampling Methods**

When conducting a study, there is no right answer to sample size, though Saunders (2009) posits that an ideal sample size should be between 10 to 30 percent of the population of the study, with Guest, Bunce and Johnson (2006) asserting that theoretical saturation generally occurs in as few as twelve interviewees and that for high level overarching themes, a sample of six interviewees is sufficient to enable development of meaningful themes and useful interpretations. The following issues needs consideration:

- **Absolute Sample Size:** It is important to consider absolute sample than its relative size in relation to the total population;
- **Statistic and the Central Limit Theorem:** The larger the absolute sample size, the more the closely its distribution to the normal distribution. In any case, the minimum sample size should be 30, as this is most likely to offer a reasonable chance of distribution. If the sample is less than 30, it will be advisable to include the whole sample;
- **Time and Cost:** According to Bryman and Bell (2003), the law of diminishing returns starts to kick around a sample size of 1000, making it less worthwhile to interview research participants;
- **Non-Response:** Normally, respondents are less motivated like the researcher and or about the research. Furthermore, those who might have responded might decide to provide unusable data;
- **Variation in the Population:** If the population being studied is highly varied, then the sample size needs to be larger than if one is studying a population which is less variation;

Having presented notable areas that researchers should consider when choosing a sampling size, we then discuss justifications for choosing a sampling method for a particular research approach.

**(a) The nature of the population of the study**

If the researcher cannot determine the total number of observations (population) of the study, it is difficult to use probability sampling techniques, such as the systematic, simple random and stratified (proportionate and disproportionate) techniques, which requires some calculations to determine an ideal sample size.

**Building Scenarios**

**Scenario 1:** Let's say the researcher is informed by the positivists' philosophy, with the research approach being quantitative, that is deductive, and the population of the study not quantifiable. The researcher should use non-probability sampling method to determine the research sample. There is a sense in which the choice of the sampling method was not informed by the research approach, rather by the nature of the population.

**Scenario 2:** Let's say the researcher is informed by the interpretivist philosophy, with the research approach being qualitative, that is inductive, with the population of the study quantifiable. The researcher can use simple random, systematic and or stratified sampling technique, under the probability sampling method to determine the research sample. The researcher would then use unstructured, semi structured interviews and or focus group discussion to determine reality. There is a sense in which the choice of the sampling method was not informed by the research approach, rather by the nature of the population.

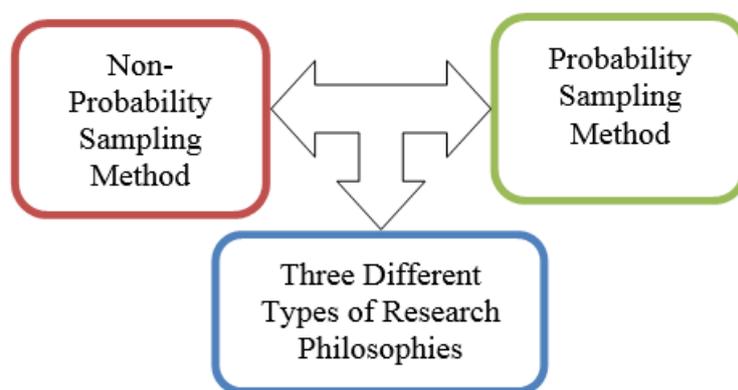
This paper, therefore, is in support of Kumar (2014) and Alvi (2001). Alvi had this to say:

...non-probability techniques make it possible to take a sample of population the elements of which are infinite in number... (Alvi, 2016, p. 14).

This statement simply means that for a population whose elements are not quantifiable, non-probability sampling method becomes relevant. This statement is contrary to the adage that non-probability sampling method is used in qualitative research approach.

## Conclusion

In conclusion, this paper posits that the type of sampling method that researchers use, is not informed by the philosophical assumptions of the study, but by the nature of the population of the study. Therefore, a researcher can use either of the sampling method and this view can be best describe by the diagram below:



**Figure 1.1. Research Philosophies-Sampling Methods Cob-Web**

*Source: Authors, 2020*

Figure 1.1 above, entails that a research informed by any type of research philosophy is not restricted to a type of sampling method, what matters is not the research approach but the nature of the population ‘...is it quantifiable or not’.

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