Chapter 3
Subject Recommended Samples:
Snowball Sampling

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ABSTRACT

In a research project, the selection of the sample method is crucial, since it has repercussions throughout the entirety of the study. It determines how the population under scrutiny will be represented and with what accuracy. Hence, it has an important impact in terms of the reliability and validity of the research in general, and consequently, its conclusions. This chapter aims to explore snowball sampling as a chain-referral sampling method. An introductory review of the relevant literature highlights its main characteristics, benefits, and shortcomings, and provides a broader insight to circumstances where it can be successfully applied. This theoretical prologue is followed by the analysis of its employment in an online questionnaire and the presentation of the lessons learned from this sampling decision.

INTRODUCTION

In the methodology research arena, sampling precepts and processes have remained with a status of mere phases of studies and have not been carefully analysed per se (Noy, 2008). Nonetheless, the determination of the sampling method has a vital impact in the validity and reliability of a research. The potential to draw valuable conclusions from the data collected in a research lies also in the meticulousness of the sample method. Why and how researchers choose and apply a sample to the studies they conduct is a main element when assessing the value of their results.

There are multiple sampling methods and they should be selected and employed according to each research's particular objectives and characteristics. Studies targeting hidden populations, for example,

tend to prefer non-probability and chain referral sampling methods rather than the conventional probability sampling approaches. This happens because these populations are often composed by subjects with no sampling frame, who express a concern for the safeguarding of their privacy. This derives from the fact that they belong to a peculiar group and solely represent a niche of the generality of the population (Heckathorn, 2002). Hidden populations usually include people affected by issues that are socially regarded as being sensitive, such as homosexuality, homelessness and drug use. The snowball sampling approach, which will be the focus of this chapter, was specifically designed to address the sampling challenges deriving from populations that are difficult to access (Brackertz, 2007).

As a method of chain referral, snowball sampling has an interactional nature compatible not only with the study of hidden populations, but also with the study of social networks (Noy, 2008). The sampling procedure can be initiated by researchers' contacts or by placing adverts in relevant locations (Noy, 2008). With difficult populations, involving sensitive matters, the researcher might first opt for a thorough scan of the locations where these populations meet and then approach some of them suggesting a preliminary interview. Later they are asked if they would like to recommend other individuals to participate in the study as well. When people are recommended and decide to participate, they are equally invited to suggest potential respondents. With this cycle of recommendations, the number of participants increases. So, snowball sampling resorts to an initial random selection of individuals who then recommend other subjects that in turn make their own suggestions of research subjects. This process continues until the size of the desired sample is reached (Kendall, et al., 2008). Only those who are connected to the individuals in the network of recommendations are used in the sample (Ahn, Han, Kwak, Moon, & Jeong, 2007). The starting sample is usually selected via a convenience

system, making the entirety of the sample a non-probability sample. This sampling approach is used mostly in practice and less seen in statistics related literature (Handcock & Gile, 2011).

The rise of studies focusing on online populations has caused a continuous growth in the number of researcher using online surveys. They face the challenge of transposing conventional research methods to Web-based environments (Wright, 2005, p. 1). The authors have developed an online questionnaire to explore Web 2.0 users' preferences using the snowball sampling method. Since the population is Web-based, it was decided to use methods that can be applied over the Internet. The only condition that was required to participate in this questionnaire was that the respondents used Web 2.0 technologies or tolls. The only characteristic that the participants had in common was that they used the Social Web, independently of purpose, frequency or expertise and also regardless of participants' demographics. Such a study demands research and sampling methods that can encompass a large, diverse, and scattered population. The use of snowball sampling derives from the fact that Web 2.0 users represent a population that is widely spread throughout the world and the best solution to reach as many respondents as possible is to use Web 2.0 itself and its users to communicate with each other. Thus, allowing the population to define itself. The way this online questionnaire was applied and distributed by the researchers and then by the respondents, allows an empirical analysis of the snowball sampling method.

The first section of the chapter explores the method of snowball sampling, by presenting and discussing its core traits and the challenges and benefits it presents. The second section intends to provide insight on the use of the snowball sampling method in online questionnaires and the use of Web 2.0 to apply this method efficiently. This leads the way to the presentation of the online questionnaire developed by the authors, its results and the lessons learned from the way it

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