From the Editor: Saturation in Qualitative Tourism Studies

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1 INTRODUCTION

Selecting an adequate number of respondents that is representative of your target population is of vital importance in quantitative research. Although quantitative studies aim to obtain data with solid statistical basis and to make informed, unbiassed and generalised conclusions (Andriotis, 2023; Monterrubio, Andriotis and Rodríguez-Muñoz, 2020), in qualitative research, statistical generalizability is not the aim. Instead, such studies aim to obtain insights on some aspects of human experience. Therefore, a good qualitative sampling is concerned with the richness of information by exploring the range of opinions from a population that in the context of tourism studies usually is comprised of human subjects, such as tourists, community members, entrepreneurs and decision-makers.

As an editor of the Journal of Qualitative Research in Tourism (QRT) which aims "to mark an important milestone on the very important area of qualitative research in tourism and hospitality (Andriotis, 2020: 1)", and by doing so it is focusing entirely on qualitative inquiry, I have realised that for empirical qualitative studies saturation is an essential methodological element for sample selection. In reality, tourism scholars have frequently used saturation as an indicator of sample size (see for example Andriotis, 2013; Eitzenberger and Thimm, 2022; Eyisi and Okpoko, 2023; Fattah and Wang, 2023; Islam and Rahman, 2024; Köchling, 2020; Liu-Lastres and Wen, 2021; Nyau and Chin, 2023; Paraskevaidis and Andriotis, 2021; Singh and Sharma, 2023; Yeager et al., 2021).

For this reason, this editorial seeks to explore the concept of 'saturation', which although it is being widely used by most, if not all qualitative tourism researchers, in the broader context the concept is both problematic and vague and almost absent from the methodological tourism literature. As a result, only a very small number of tourism studies have critically examined the concept.

2. CHALLENGES OF APPLYING SATURATION IN TOURISM STUDIES

Often it is thought that the larger the sample, the better the results and more accurate the outcome. In the case of qualitative studies although "size does matter … more is not always better (Anderson, 2017, 4)". For instance, the author reviewed 30 peer-reviewed qualitative studies published after 2020 in the three top 4 stars tourism journals (Annals of Tourism Research, Tourism Management and Journal of Travel Research), and found that they used between ten and forty interviews to reach saturation (13 of them had 20 interviewees or less and 9 between 21 and 30 / mean 23.5). Among papers published in the three journals, Journal of Travel Research had larger samples (between 15 and 42, mean 29.1), perhaps due to the fact that this journal in the past used to have a quantitative focus.

In practise, the corpus of qualitative samples should not be repetitious, but large enough to capture the range of experiences of the phenomenon under study (Mason, 2010). In the words of O'Reilly and Parker (2012): "in qualitative inquiry, the aim is not to acquire a fixed number of participants rather to gather sufficient depth of information as a way of fully describing the phenomenon being studied" (p.195). However, in cases where a researcher reaches saturation too quickly, his analysis might lack criticality and complexity (Charmaz, 2014: 215). Thus, qualitative studies should recruit only the number of participants which is appropriate to draw the necessary conclusions and the data they will provide will be fully used. In this respect, the common guiding and widely accepted principle of sample selection across a range of qualitative research approaches is saturation that relates to the number of interviews conducted (Saunders et al., 2018).

From the review of the 30 peer reviewed studies undertaken by the author it was found that most provide limited transparency to how saturation was achieved. In fact, the majority did not provide a solid justification for their sample size, or provided only superficial reporting. Just to name some examples: the study of Shin, Lee and Kim (2024) stated: "given that qualitative studies require at least a sample size of 12 to reach content saturation, a sample of 17 was determined to be adequate for data analysis"; Manthiou, Ulrich and Kuppelwieser (2024) pointed out that their "interview process stopped at reaching saturation"; and Ruhanen, Saito and Axelsen (2021) that "sampling continued until theoretical saturation had been reached". All these examples and several others prove that most studies tend to claim they had reached saturation but they do not provide any comprehensive explanation on how saturation has been defined, achieved, or justified.

Generally speaking, although several scholars, e.g. O'Reilly and Parker (2012) consider saturation as a convincing concept, its application has a number of practical weaknesses. The main reason for this is that there is not a universally accepted "rule of thumbs" for determining qualitative sample sizes. The failure of many tourism scholars to critically explain and provide evidence on how they have reached saturation has an impact on the quality of their studies. The problem is more severe if somebody considers the limited methodological tourism research on the specifications that shape saturation, and how to evaluate and accomplish it. As Hennink and Kaiser (2022) support "unsubstantiated claims of reaching saturation undermine the value of the concept (p.2)". The obvious lack of transparency in reaching saturation may be attributed to the absence of detailed guidance on how to assess saturation (Morse, 1995; Guest et al., 2006).

3 FORMS OF SATURATION

In qualitative research, four different approaches of saturation exist. These approaches are explained below.

3.1 Data saturation

Data saturation is the most widely sampling approach for tourism researchers (see for example the studies of Eitzenberger and Thimm, 2022; Fattah and Wang, 2023; Frost and Frost, 2021; Jasrotia and Singh, 2023; Jiang et al., 2012; Komis and Wassler, 2022; Nyau and Chin, 2023; Welthagen, Slabbert, and Du Plessis, 2023; Yeager et al., 2021). This is evident from the 30 qualitative studies reviewed for the purpose of this editorial, from which more than half (60%) used data saturation to report information redundancy. Within this approach, studies stop data collection only when the data collected from the last informants do not generate any new insightful information on the themes and subthemes (Paraskevaidis and Andriotis, 2017).

According to this approach 'informational redundancy' (Sandelowski, 2008), ie. how much data (or in other words number of interviews) are required until nothing new is apparent can be used to identify sample sizes. Thus, collecting any additional data will not produce any added value. It is then when the researcher becomes confident that data is saturated, he stops collecting any additional data and starts analysing the collected ones (Saunders et al., 2018, 1896-7). Just to give an example the study of Paraskevaidis and Andriotis (2021) used as a sample 13 medical volunteers and reported that data saturation was reached only when the aim and the objectives of their study were addressed and the last two interviewees did not provide any new insightful information, but their responses just confirmed the findings of the previous interviews.

3.2 Theoretical saturation

According to Bryant and Charmaz (2007) theoretical saturation refers to "the point at which gathering more data about a theoretical construct reveals no new properties, nor yields any further theoretical insights about the emerging grounded theory" (p.611). Thus, this approach attempts to determine when the properties of theoretical categories are adequately developed (Saunders et al., 2018). However, the main dilemma facing researchers is whether they have collected sufficient data to illustrate the theoretical framework underpinning their study or not?

Generally speaking, theoretical saturation is achieved when the concepts or dimensions that characterise a theory are fully reflected in the data (Sebele-Mpofu, 2020). Therefore, theoretical saturation cannot be determined in advance of data collection and analysis. In tourism literature, several studies have determined their sample size based on the theoretical saturation criterion (see for example Monterrubio, Andriotis, and Rodríguez-Muñoz, 2020; Swanson and Brothers, 2012). For instance, from the review of the 30 studies one third were based on the theoretical saturation criterion to select their sample.

3.3 Meaning Saturation

There are qualitative researchers, see for example Van Rijnsoever (2015, p. 12) who believe that data collection should not focus entirely on the occurrence of themes. Instead, they support that it should pay higher attention to those characteristics and meaning of concepts which are reflected in the data, in other words "meaning saturation". Meaning saturation according to Hennink et al. (2017) is "defined as the point when we fully understand issues, and when no further dimensions, nuances, or insights of issues can be found (p. 6)".

To achieve meaning saturation Sim et al. (2018) propose "to consider not only how many times the theme emerges from the interviews but its analytic conceptualisation, thus move from descriptive meaning of the theme to its interpretive cogency" (Sebele-Mpofu, 2020, p. 7). Only when meaning saturation is reached, ie. when researchers have reached the point where viewpoints, variations, accurate and deep understanding of information are all reflected in the data (Hennink et al., 2017, 2019; Saunders et al., 2018), qualitative researchers can be assured that they gathered quality, rich, detailed and relevant data. From the 30 qualitative studies used for the purpose of this editorial only one used meaning saturation to determine its sample size.

3.4 Thematic or Code Saturation

This approach involves counting codes and/or themes in successive transcripts or sets of transcripts until any additional data will not lead to any new emergent themes or codes, signalling this way the reach of saturation. Qualitative tourism studies do not frequently use coding or thematic saturation as a method for sample size determination. For example, from the 30 studies reviewed none used thematic or code saturation as an indicator of sample size. Also, through a more detailed literature review only an insignificant number of tourism studies were found having used thematic or code saturation to reach saturation, see for example (Brochado et al. 2023).

The main reason for this is that the reliance on codes or themes only leads to narrow focus or analysis of saturation and "misses the point of saturation" (Hennink et al., 2017, p. 15). As a result, this method can be considered as a deficient measure of saturation, since although the codes and themes can be saturated, vital information might remain unconsidered.

As a result, Hennink et al. (2019) support that thematic and code saturation might be used only in the initial stages of analysis as a way to comprehend "the depth, breadth and nuance of the issue" (p.4).

4. Conclusion

This editorial has drawn on recent examples of the use of the concept of saturation to encourage greater transparency in reporting sample sizes in qualitative studies. While in a short editorial it is not possible to assess in detail all approaches using saturation as a method of sample size determination, it is believed that the reference to studies having explored and used saturation as the most commonly cited justification for an adequate sample size and as a 'gold standard' in assessing samples' quality, can help qualitative researchers to better understand how saturation can be assessed.

From the review undertaken for the purpose of this study four main forms of saturation were identified, namely: theoretical saturation that aims to develop theory; data saturation that is reached when the collection of additional data does not produce any added value; meaning saturation that focuses on the depth of research data and code or thematic saturation that is documented by the breadth of collected data and in more detail by counting codes or themes in successive transcripts or sets of transcripts until any additional data will not lead to any new emergent themes or codes. While overall the selection of qualitative sampling techniques should be situation-specific guided by research objectives, scope of study, study population, research design and budget, in qualitative work it is apparent that the grounds on which sample size is determined is largely absent. To facilitate greater transparency in justifying and reporting sample sizes and applying saturation in qualitative studies further research is required.

To sum up, saturation is an important indicator that a sample is adequate for a study phenomenon and that collected data have captured the diversity, depth, and nuances of the issues under study (Francis et al., 2010). For this reason, reaching saturation has become a critical component of qualitative scholars that can help them to make their data collection more robust and valid (O'Reilly and Parker, 2012). Finally, although this editorial focuses on tourism, the principles it suggests apply to several other fields and particularly to those studies with a qualitative focus.

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