

METHODOLOGICAL ASPECTS OF CUSTOMER SATISFACTION SURVEYS: HOW IMPORTANT ARE RESPONDENT SELECTION CRITERIA?

Simonas Juozapas Raišys

*Mykolas Romeris University, Lithuania
simonas.raisy@gmail.com*

Abstract

Purpose – Based on theoretical analysis and case review, the paper aims to reveal the challenges of respondent selection criteria for customer satisfaction research. In this paper, academic literature of qualitative and qualitative-quantitative research is analyzed and interpreted, revealing the importance of respondent selection criteria for customer satisfaction surveys.

Design/methodology/approach – The research paper is based on qualitative content analysis, synthesis of academic literature, and comparative method.

Finding – The paper showed that carefully considered, selected, and validated respondent selection criteria are essential for obtaining increased accuracy of customer satisfaction survey results.

Research limitations/implications – This paper has potential limitations due to lacking bibliometric analysis of qualitative survey methodologies as well as more thorough academic literature analysis of interlinkage between respondent selection criteria and the accuracy of survey results. Findings of this paper require to be verified in a wider selection of customer satisfaction surveys.

Practical implications – The conducted analysis resulted in significant findings towards reliability and consistency evaluation of customer satisfactions surveys. Findings can also be applied in practice during qualitative, survey based interviews, related to other areas than customer satisfaction.

Originality/Value – To ensure that the survey is not filled out randomly, but it is filled in thoughtfully, and that the findings are meaningful, researchers need to select respondents carefully, with a set of selection criteria. Respondent selection is one of the key aspects of qualitative survey and is widely discussed in academic literature. The analysis of a set of qualitative customer satisfaction surveys has shown that respondents sometimes lack consistency in their answers, which may result in ambiguities of survey results. Therefore, respondent selection criteria are crucial for survey quality and significance of the results. In this paper, the importance of respondent selection criteria is demonstrated with the help of a qualitative-quantitative survey method AHP (Analytic Hierarchic Process). The potential challenges and limitations that interfere with the obtainment of meaningful results in customer satisfaction surveys are discussed.

Keywords: methodology; customer satisfaction; survey; respondent selection; AHP.

Research type: Case study.

Introduction

Customer satisfaction surveys are one of the most important tools for companies to improve the quality of their services, to understand their customers' expectations and to design a strategy to better meet such expectations, leading to customer loyalty (Singh, 2006). A well-designed survey has a significant impact on the results of customer satisfaction studies

(Coldwell, 2001). The academic literature widely discusses and describes in detail how to design qualitative research (Baskarada, 2014; Hanson, Balmer and Giardino, 2011; Alvarez, Atkeson, Levin, and Li, 2019). Researchers are studying the reliability of respondents' answers, looking for the most effective survey methods (Kiesler and Sproull, 1986; Ranchhod and Zhou, 2001; Armantier, Bruine, Topa, and Zafar, 2015). The issue of appropriate sampling method selection has been studied by academia for a long time from the perspective of theoretical comparison of methods and verification of methods in practice (Peterson and O'Dell, 1950; Brown, 1947; Neyman, 1934). A well-conducted survey not only needs to ensure that the survey is in the right format, but also that the respondents are selected according to the right criteria. Montabon et al. (2018) raised a similar issue in the field of supply chain management, examining appropriate sample size for surveys in the field. Nayak and Narayan (2019) studied suitability of sampling methods in online surveys, concluding that sampling method selection is indeed an important task, considering that different methods could result in different advantages and disadvantages. Pierce et al. (2020) argue that convenience sampling is more suitable for cost-effective, engagement-fostering surveys, random sampling is recommended for a reduction of bias and a valid statistical analysis, whereas purposive sampling is exposed to a heightened risk of not forming a sound basis for statistical inference. The aim of this paper is to examine the impact of respondent selection on customer satisfaction survey results and examine how statistical reliability of purposive sampling could be improved.

The following section examines cases of customer satisfaction surveys in the academic literature, analyzing them through the prism of the impact of respondent selection on the accuracy and consistency of the responses. The results of the case study are presented, where customer satisfaction with services was investigated using the qualitative-quantitative survey method AHP, highlighting the challenges encountered. The paper concludes with a discussion of the sampling methods and recommendations for surveys, drawing conclusions.

Respondent selection methods, challenges, and limitations

To better understand the importance and implications of respondent selection criteria, following is an analysis of three studies based on customer satisfaction surveys. The studies were selected based on type of survey conducted, diversity of respondent selection methods used, and date published. Following studies are presented and analyzed in chronological order.

A study by Figler, Sriraj, Welch, and Yavuz (2011) was carried out by selecting respondents using the random digit dialing method (RDD). RDD has been widely used for a long time, but nowadays this method may be less reliable in cases, especially as regards the geolocation criterion for respondent selection. Nowadays, the use of mobile phones is much wider than that of landline phones, and therefore prefixes and area codes of phone numbers do not necessarily reveal the location of the call receiver (Brogan et. al., 2001) Thus, when choosing an RDD approach, it is important to consider whether this type of respondent selection will enable you to reach the target group of people. Looking at the study by Figler et al. (2011), which investigated customer satisfaction in public transport services provided by the Chicago Transit Authority (CTA), the authors did not identify any difficulties in the selection of respondents related to the geographical selection criterion. However, according to Maple et. al. (2019), who selected respondents for their study using the RDD method, the RDD method has the downside that it is not possible to know whether respondents who did not answer the phone are systematically different from those who did answer the phone and participated in the survey. Thus, RDD sampling only examines the population that is willing to

participate in a telephone survey, but does not tell us what is different about the rest of the population that is not willing to participate in a telephone survey. As suggested before, that may have an impact on survey's reliability of results.

In a survey by Singh and Kaur (2011), done by using convenience sampling method, authors state that their customer satisfaction survey has limitations due to population researched. By using convenience sampling, only those respondents that are easily accessible and readily available to participate in the survey are selected. In this case, respondent selection criteria (or rather respondent profile) can be described after the whole sample was surveyed. By using this respondent selection method, the survey results may be vulnerable to inconsistencies and inconclusiveness. In terms of customer satisfaction surveys, convenience sampling method's shortcomings might be overlooked if the purpose of the survey was to do the initial inspection of the area of investigation. However, to get more detailed and less ambiguous results from the survey on a particular matter, convenience sampling method should be combined with other pre-set respondent selection criteria to narrow down the area of investigation. On the other hand, no additional respondent selection criteria are needed if the aim of the survey is to investigate customers' satisfaction with services provided by particular institutions or in the direction of particular area of services in general (e. g. banking services of Punjab city in India, as per Singh and Kaur (2011) study).

Another example of respondent selection is a customer satisfaction with liner services survey done by Yuen and Van Thai (2015). In this case, the authors select respondents based on their level of managerial involvement in their respective companies, requiring at least five years of service in the company and to hold a managerial title. According to the authors, with such respondent selection criteria, the selected respondents can adequately represent the company they work for and can be called experts. Thus, for the specific study on business-to-business (B2B) customer satisfaction with liner services, the latter expert selection method adequately met the study's need to find the right respondents. However, it is worth noting that the survey by Yuen and Van Thai (2015) was conducted in Singapore and the geographical constraint was listed as a limitation to the study rather than a criterion on which respondents would be selected. In contrast with the convenience sampling method used by Singh and Kaur (2011), Yuen and Van Thai (2015) used purposive sampling, which, as described above, lists requirement that respondents must meet to be taken into the researched population.

As previously discussed, all three studies follow different respondent selection methods, i. e. RDD, convenience sampling, and purposive sampling. All three surveys were similar in their purpose – to assess customer satisfaction – but the areas of research differ. Figler et. al. (2011) studied public opinion and satisfaction with certain city's public transport, in which case RDD method is appropriate to select respondents who would represent the majority of residents. If this study followed purposive sampling, it would otherwise limit the representativity of survey results. A study by Singh and Kaur (2011) was done using convenience sampling, which allowed to easily reach the opinion certain banks' customers and assess customer satisfaction with banking services. Finally, Yuen and Van Thai (2015) study's aim was to assess B2B customer satisfaction with particular services (liner shipping). In this case, respondents had to be experts on the matter for them to be able to represent their respective companies. To select competent respondents, purposive sampling method was used to assess whether the respondent is an expert.

In summary, all previously analyzed customer satisfaction studies followed respondent selection methods that were best suited for their respective aims. This shows that respondent selection plays a key role in customer satisfaction studies' results accuracy and representativity. To ground the latter statement, further presented is a case of expert survey

of B2B customer satisfaction with consulting services, incorporating pilot group of respondents to evaluate the suitability of respondent selection criteria set out for the certain case.

Case of B2B customer satisfaction with consulting services

The following case study examines customer satisfaction with B2B consultancy services. The survey was carried out in two phases. That is, the selection of respondents was carried out by purposive sampling, defining the criteria that respondents must meet to be considered experts on the subject matter. The aim of the study was to identify which service quality criteria are most relevant for customer satisfaction with consulting services in B2B setting. Respondent selection criteria were following:

- Respondent must have no less than 5 years of experience of working in B2B
- Working on B2B service project during the study
- The represented company was founded at least 15 years ago
- The represented company relies on B2B services
- Respondent is responsible for ensuring the compliance of the services provided by the supplier and for approving SLA (Service-level agreement)
- Respondent represents managerial position

In this study, respondents were asked to rank service quality criteria based on their influence on customer satisfaction with consulting services. For the survey, AHP (Wind and Saaty, 1980) method was used. To rank the criteria, pairwise comparison matrix was presented to respondents for comparison of each criterion in pairs until the whole matrix was filled in. After respondents filled in the matrix, answers were calculated, and significance of criteria was retrieved. What is more important in this case, consistency ratio (CR) was calculated which indicates the consistency of each respondent's answers throughout the survey. The lower the CR, the more chances the respondent filled in the survey thoughtfully. Otherwise, if the CR is high, the survey might have been fill out randomly, without proper judgement.

To determine if the respondents' selection criteria according to purposive sampling method were aligned with the aim of the study, a pilot group of respondents were surveyed, of which the respondents did not meet one or more of the criteria that were set. For the survey to be valid and results to be accurate, a consistency ratio threshold of $CR \leq 0,5$ was set. In this case, if the CR of a filled out survey sheet is more than 0,5, it is considered inconsistent and inaccurate. After the pilot group filled out the survey, the CR was calculated. Interestingly, each respondent from the pilot group showed some level of inadmissible inconsistencies throughout the survey. Given that the respondents in the pilot group could have been respondents who did not meet only one of the criteria, there were no respondents in the whole group whose completed survey met the CR threshold. CR's of the pilot group survey's fluctuated between 0,505 and 1,004. While CR of 0,505 being near the acceptable threshold, but still inadmissible, everything in between and especially a CR of 1,004 strongly indicates that the survey might have been filled out completely randomly.

Another group of respondents were selected who met all the criteria listed above. This group was considered an expert group. This group's CR was between 0,181 and 0,457. A CR of 0,181 indicates that this particular expert was solid on their judgement when comparing the service quality criteria in relation to customer satisfaction. At the other end, a CR of 0,457 indicated that the expert was consistent enough with the evaluation, with a room for

improvement. In this case, based on consistency of the expert answers, the survey produced accurate results compared to the pilot group.

As this example illustrates, the purposive sampling method by itself does not guarantee accurate survey results. If one or more criteria were not set, the survey would not have been acceptably accurate. If it were not for AHP method, where consistency of respondents' answers were measured, it might have been hard to measure the reliability of the results. When selecting respondents for the survey, not only the method of sampling is important, but also the method's application to the particular case. In latter case, using a pilot group of respondents, the respondent selection criteria were validated as compliant with the aim of the study. This shows the importance of alignment between sampling method and the usage of the method.

Conclusions

Based on theoretical analysis, a case study of customer satisfaction surveys has revealed the importance of appropriate sampling method choice as well as respondent selection within the sampling method chosen. Due to the nature of qualitative surveys, it is not always possible to estimate the consistency of respondent answers, as well as the accuracy of survey results. By combining qualitative and quantitative methods of research, appropriate selection of respondents for the study can be ensured by introducing an opinion consistency metric. If respondents meet the criteria set for selection and have consistent opinion throughout the survey, the study has more potential to produce significant results.

All sampling methods have their own limitations which must be considered during selection of respondents for surveys. Therefore, respondent selection criteria are crucial for survey quality and significance of the results. To avoid ambiguities in survey results, carefully considered, selected, and validated respondent selection criteria are essential.

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