



# SYNERGY OF QUANTITATIVE AND QUALITATIVE MARKETING RESEARCH – CAPI AND OBSERVATION DIARY<sup>1</sup>

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**Abstract:** The purpose of the publication is to indicate the need for a well thought-out combination of quantitative marketing research with qualitative research. The result of this research approach should be a fuller understanding of the research problem and the ability to interpret results more closely, while maintaining the reliability of the whole research process. In the theoretical part of the article, the essence of quantitative and qualitative research, with particular emphasis on the limitations and strengths of both research approaches, is presented. The increasing popularity of qualitative research does not absolve researchers from the prudent attitude towards the whole marketing research process – including the need to verify hypotheses or research questions. Excessive simplification in the approach to qualitative research can distort the essence of marketing research. In the empirical part of the article, the authors presented an example of combining quantitative marketing research with qualitative research – for this purpose, the results of their research will be used (scientific grant from National Science Centre). The CAPI technique ( $n = 1103$ ) was used in the quantitative study, and observation diaries ( $n = 110$ ) were used for qualitative research.

**Keywords:** marketing research, triangulation, synergy, quantitative research, self-observation.

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## 1. Introduction

As stated in Olejniczuk-Merta [2014], the development of a free market economy requires from the organization the continuous acquirement, usage of information and knowledge, especially regarding the market and its functioning. The aim of marketing research methods should be to facilitate the right decision making and, in effect, to develop businesses and other market players [Mazurek-Łopacińska, Sobocińska

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2013]. The idea of using both qualitative and quantitative methods in studying the same phenomenon has been more and more popular among scholars and researchers [Bryman 2006].

The purpose of this publication is to indicate the need for a well thought-out combination of quantitative marketing research with qualitative research. The result of this research approach should be a deeper understanding of the research problem and the ability to interpret results more closely, while maintaining the reliability of the whole research process. The issue of triangulation of research methods is visibly gaining in importance. For this reason it is worth paying attention to the positive example of such a research approach in order to achieve the expected synergy. The research approach presented by the authors provides undeniable evidence for such synergy of quantitative and qualitative research.

## **2. Triangulation of research methods in marketing – in search of synergy**

Qualitative research is one of the basic, apart from quantitative research, scientific research methods [Komor 2011]. Czakon [2009] draws attention to the fact that in management science qualitative data is not widespread. He even mentions the dominance of quantitative methods. Undoubtedly, the dissemination of research, both quantitative and qualitative, does not mean the simplification of the research process [Rak, Nogiec 2011].

Qualitative methods differ from quantitative methods in terms of research problems, research sample size, methodology and scope of research [Komor 2011]. However, some difficulties in comparing quantitative and qualitative marketing research due to nomenclature should be pointed out (see [Tarka, Kaczmarek 2014; Tarka 2017]). Nevertheless, it is worth pointing out certain non-discriminatory differences. In the academia, there is a common statement that both quantitative and qualitative research approach has some vital benefits and limitations [Komor 2011]. However, Kaczmarczyk [2014] pays attention to the ambiguity and inaccuracy of such comparisons. In his opinion, the fact that the study is called quantitative or qualitative is mainly determined by the methods of data collection instruments used in that particular study. A slightly different approach to the differences was presented by Neumann [2013]. The author pointed out four significant differences between qualitative and quantitative methods. The first one refers to the nature of the data itself. Because of the differences between soft data (i.e. words, sentences, photos, symbols) and hard data (numbers) some tools for a quantitative study can be inappropriate or irrelevant for a qualitative study and vice versa. That idea is consistent with the statement that quantitative and qualitative methods are not always interchangeable, but each method of data collection can be supported by the use of inherent features of another method [Kaczmarczyk 2014]. The second difference is

connected with principles about the research process and assumptions about social life. Neumann [2013] writes about a different language of research. The next issue is about the research purpose of the study – to verify/falsify a relationship or hypothesis that are already in the researcher's mind or to generate new hypotheses and describe details of the causal mechanism or process for a narrow set of cases; finally, the fourth difference refers to linearity of the research path (linear research path in the case of quantitative study and nonlinear research path in a qualitative study).

In the context of the assessment of qualitative research, it is worth pointing out the work by Czakon [2009], who presents five charges against qualitative research. He notes that in the case of qualitative research, the general procedure for collecting data is very different from the quantitative approach. The traditional way is linear and sequential: from research hypotheses, preparation of data collection protocols, data collection to analysis and discussion of conclusions. The researcher points to the main purpose of qualitative research, which is exploration. This refers to gathering and evaluating relevant data, both theoretical and empirical. The researcher points to the main purpose of qualitative research, which is exploration. This involves gathering and evaluating relevant data on both theoretical and empirical facts so as to assess how research can contribute to the development of theory. Another goal of qualitative methods is theory-building, that is not exposed or even overlooked in quantitative research and is of key importance [Czakon 2009].

By analyzing the specifics of the quantitative and qualitative research approach, researchers [Maison 2010; Kaczmarczyk 2014] point to the complementarity of both methods – these methods complement each other and, as a result, enhance their strengths and eliminate defects. Qualitative research can be used both before and after the quantitative study – as a valuable supplement. In the first case, the usefulness of qualitative methods is to support such phases of quantitative research as: defining research areas, formulating questionnaire questions, formulating research hypotheses. In the second case, the qualitative research approach helps to explain and deepen the results from quantitative research. Beyond that, it can be also necessary to use qualitative methods despite the lack of such an intention when planning the study. The reason lies in the unexpected difficulties in analyzing the quantitative results [Maison 2010]. However, Kaczmarczyk [2014] notes that at the very beginning of each research process (research design stage) the researcher must decide about the choice of quantitative and qualitative methods.

Undoubtedly, qualitative data has great potential in explaining quantitative data [Mazurek-Łopacińska, Sobocińska 2013]. According to Czakon [2009] qualitative research is not easier than quantitative research. The author emphasizes the crucial issue that qualitative research is not without methodological rigor on the stages of data collection and analysis and creation of the theory.

As is stated in Tarka [2017], getting a full response to a research question is often only possible through the use of both quantitative and qualitative research methods. Quantitative research provides, first and foremost, a statistical picture of market

phenomena and processes, while qualitative research provides individual case studies which are completely individualized. Therefore, the relationship between these two research approaches has a complementary character. However, mixing the approaches has advantages but adds complexity and is more time consuming [Neuman 2014]. Quantitative and qualitative research can be used in the same research project, but at different stages within the framework of triangulation. Tarka [2017] rightly emphasizes that the integration of both research approaches leads to synergy, which often allow the researcher to assemble qualitatively, from a variety of perspectives, research material rather than research in one methodical stream. In the light of the literature, there are some arguments for combining the qualitative and quantitative methods. One of them highlights such a profound truth – these two approaches can be combined because they share the goal of understanding the world in which we live [Sale, Lohfeld, Brazil 2002].

In social science triangulation refers to the mix of data and methods so that diverse viewpoints or standpoints can explain a topic [Tran 2014]. According to Mazurek-Łopacińska and Sobocińska [2016], it is the study of market phenomena and processes from different angles and using different methodological perspectives. Triangulation is also considered as a technique for achieving the faithful representation of reality [Czakon 2009]. The effect of using triangulation should be the creation of knowledge at several levels and movement beyond the knowledge that can be achieved by using only one approach. Other advantages of triangulation of the research method is to get holistic information about the research population [Jick 1979; Stolecka-Makowska 2016]. In the context of combining methodological paths, some other terms are also used: the third methodological path, the third methodological movement, integrated methodology [Chlipała 2014].

Different types of triangulation are broadly defined in the literature [Yeasmin, Rahman 2012]:

- triangulation of method/methodological triangulation – mixing the qualitative and quantitative research approaches and data; these methods can be used sequentially, first one and then the other or simultaneously;
- triangulation of data – using different data sources;
- triangulation of theory/theoretical triangulation – using multiple theoretical perspectives to plan a study or interpret the data; useful in solving problems with a low degree of theoretical consistency;
- triangulation of researcher/investigator triangulation – using more than one researcher to observe one object; the goal is to minimize the subjective preferences of the researchers; multiple observers bring alternative perspectives, backgrounds, and social characteristics because each observer may notice and record different data; the combination of all the observers' observation results gives a fuller picture than just relying on either one alone.

Hussein [2009] underlines the mixed views on the uses of triangulation in research – as one of the validity measures or the way of a wider and deeper understanding of

the study. Yeasmin and Rahman [2012] also draw attention to one significant issue – the crucial condition of obtaining the expected results is the proper preparation of the study, both in terms of theory and the whole research concept. These authors emphasize that not every research aim can be achieved by triangulation, this strategy may not be suitable for all research problems.

### 3. An example of synergy of marketing research

Although, as Sobocińska [2012] notes, the increasing penetration of the Internet makes the mistake coverage decreasing, thereby increasing the attractiveness of the quantitative marketing research conducted on the Internet, the idea of an internet-users panel was rejected by the authors. Despite the cheaper method of data collection (consumer panel on the Internet), the authors considered that this method of data collection would significantly distort the results of the study. As the whole study concerned the use by consumers of three different service distribution channels (online, offline, and phone channel), from the point of view of the research purpose, the traditional research method was the most neutral. In order to eliminate the risk of distorting the results of the quantitative study, the CAPI technique was used.

The research sample was determined by the quota-random method, quotas according to age and gender and the nature of the place of residence (city provincial, city other than provincial, village) – the structure of the sample was contained at regional level. This means that the number of interviews for each province were set proportionally to the share of the population, then the number of interviews to conduct in the type of locality (city provincial, city other than provincial, village) was set, the number of interviews also reflected the number of inhabitants for the province. The study was conducted in the period of September-November 2015 on a group of 1103 respondents including three consumer generations (see Table 1).

As a valuable complement to the results of the quantitative research, the qualitative approach was also applied. From the research sample described above (Table 1), another research sample ( $n = 110$ , see Table 2) was taken for qualitative study – self-observation. The qualitative method (self-observation) was consciously planned by researchers at the stage of designing throughout the study. Olejnik [2011] rightly emphasizes the importance of observation due to the increasing tendency to combine different research methods.

10% of the quantitative sample was involved in qualitative research. The results of this self-observation were recorded in a paper-form diary. This specific self-observation lasted for a month, 1012 observations were recorded in total. All recorded observations related to the usage of three marketing channels (offline, online, and phone channel) with reference to selected categories of services (financial, transport, telecommunication). The questions included in the self-observation diary were related to the following issues: the type of service, the way of contact with the service provider (type of marketing channel), who was the contact initiator, what was the

**Table 1.** Characteristics of the research sample (quantitative research,  $n = 1103$ )

Characteristics		Number of respondents	Percentage of sample
Gender	Female	565	51.2
	Male	538	48.8
Generation	Baby boomers (1946-1964)	357	32.4
	X (1965-1980)	390	35.4
	Y (1981-1996)	356	32.3
Employment status	Full time employed	608	55.1
	Part time employed	82	7.4
	Entrepreneur	74	6.7
	Not employed	123	11.2
	Retired	185	16.8
	Other	51	2.8
Number of people in the household	1	108	9.8
	2	329	29.8
	3	323	29.3
	4	245	22.2
	5 or more	98	8.8

Source: own research.

**Table 2.** Characteristics of the research sample (qualitative research,  $n = 110$ )

Characteristics		Number of respondents	Percentage of sample
Gender	Female	64	58.2
	Male	46	41.8
Generation	Baby boomers (1946-1964)	49	44.5
	X (1965-1980)	42	38.2
	Y (1981-1996)	19	17.3
Role played in the household	Sole family provider	18	16.4
	One of the family provider	75	68.2
	Dependent person in the household	17	15.4
Education	Primary school	1	0.9
	'Gimnazjum' (pre-secondary school)	1	0.9
	Vocational school	16	14.6
	Secondary school	50	45.5
	Post-secondary education	6	5.4
	First-cycle studies	3	2.7
	Second-cycle studies	33	30.0
Number of people in the household	1	7	6.36
	2	38	34.55
	3	31	28.18
	4	27	24.55
	5 or more	7	6.36

Source: own research.

purpose of each contact, whether it was the first contact in this case, what was the reason/goal for this form of contact, what was the degree of this goal achievement, what was the reason for not achieving this goal. Participants of self-observation had to describe in detail their contact with the service provider on the day that the contact occurred. Therefore, the frequency of contacts with the service provider was not defined in advance, but was based on the participant's actual experience. There is a difference between the self-observation diary and the typical experience sampling method or even daily diary [Fisher, To 2012].

The diary of self-observations of 110 people among these respondents who were involved in quantitative research was constructed and used to supplement the results of consumer declarations with findings from quantitative research. The paper form of the self-observation diary was not accidental, so that the way of collecting information did not distort the results of the study. The aim of that qualitative study was to investigate the actual behavior of consumers regarding the use of different service marketing channels. The diary of self-observation has enabled researchers to identify the actual way of using services and some motivation to choose a specific marketing channel, depending on the stage of the service purchase process. Taking into account the total number of 1 000 contacts with service providers, more than 600 notes in the diary referred to the respondent's response to a contact initiated by the service provider and nearly 400 related to the contact initiated by the consumer/respondent [Lipowski 2016].

#### **4. Conclusions**

According to the authors, the value of the article is to present an unusual (or even innovative) approach to the triangulation of research methods. In the presented research procedure, observation as a method of qualitative research was used in an anon-obvious manner in order to register phenomena difficult to predict (in relation to the time and frequency of their occurrence). Self-observation with a diary was a substitute for other observation techniques, it gave researchers the opportunity to collect equally reliable data while significantly reducing the cost of the study. Noteworthy is also the fact that a qualitative study was carried out on a certain part of the quantitative sample. As a result of this selection of the qualitative sample it was possible to authenticate the market behavior of consumers. Importantly, the subsequent formulation of conclusions about the respondents was fully justified.

The purpose of this article was to indicate the need for a well thought-out combination of quantitative marketing research with qualitative research. According to the authors, synergy is possible to achieve but it demands research effort and methodological knowledge. Consistent with this line of reasoning it should be emphasized that in the case of triangulation of research methods, the researcher's methodological knowledge has to be double – the researcher should have research competence in the field of quantitative methods as well as qualitative. Thus, searching

for synergy between research methods increases the requirements for the researcher's preparation and does not make the research less demanding. In return, there is the possibility (not certain) of receiving the results of the study with added value.

The authors have also formulated some conclusions on the skillful combination of quantitative and qualitative research methods:

- the definition of a clear justification as to why methodological triangulation should be used in order to maximize the benefits of combined methods and limit their weaknesses,
- the effort to reserve reliability of measure, regardless of the used research approach,
- the attempt to collect data as objectively as possible and not distort it by methodology,
- the search for complementary research methods rather than their unfounded multiplication,
- the high level of perception and awareness of the limitations of each research method used in the study,
- the recognition of the limitations and weaknesses of the conducted research, rather than hiding or reporting the results in an unclear manner.

It should be obvious for researchers that conducting research on some issues using quantitative methods and quantitative methods on other issues cannot lead to synergies in the research methods and results. Achieving additional research value of the results is not an automatic effects of combining different research methods. What is more, qualitative research should not be the remedy for the research hypothesis, which could not be verified positively in the quantitative study. According to the misguided principle that qualitative research makes possible to positively verify each research hypothesis – it is only necessary to find a respondent whose behavior/ answer is appropriate.

The final conclusion is that the quantitative and qualitative methods, at the level of effectiveness and efficiency, do not overlap one to one. The quantitative and qualitative approaches share a common area as well as areas of use reserved exclusively for one of these two research methods. The triangulation of research methods means not only combining well-known methods/research techniques, but also modifying them for the purpose of a particular study.

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## SYNERGIA ILOŚCIOWYCH I JAKOŚCIOWYCH BADAŃ MARKETINGOWYCH – CAPI I SAMOBSERWACJA

**Streszczenie:** Celem publikacji jest wskazanie na potrzebę przemyślanego łączenia badań marketingowych o charakterze ilościowym z badaniami jakościowymi. Efektami takiego podejścia powinny być pełniejsze zrozumienie problemu badawczego i możliwość głębszej interpretacji wyników przy zachowaniu dbałości o wiarygodność całego procesu badania. W części teoretycznej artykułu zaprezentowana została istota badania ilościowego i jakościowego ze szczególnym uwzględnieniem ograniczeń i atutów obu podejść badawczych. Rosnąca popularność badań o charakterze jakościowym nie zwalnia badaczy z obowiązku rozważnego podejścia do całego procesu badania marketingowego, w tym konieczności weryfikacji postawionych na wstępie hipotez badawczych lub/i pytań badawczych. Zbytne uproszczenie w podejściu do badań jakościowych może skutkować wypaczeniem istoty badania marketingowego. W części empirycznej artykułu autorzy przedstawili przykład połączenia badania marketingowego o charakterze ilościowym z badaniem jakościowym – w tym celu wykorzystano wyniki ich badań zrealizowanych w ramach grantu naukowego NCN. W badaniu ilościowym wykorzystano technikę CAPI ( $n = 1103$ ), natomiast w badaniu o charakterze jakościowym użyto dzienników obserwacji ( $n = 110$ ).

**Słowa kluczowe:** badania marketingowe, triangulacja, synergia, badania ilościowe, samoobserwacja.