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Qualitative Method Versus Quantitative Method in Marketing Research: An Application Example at Oba Restaurant

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Additional information is available at the end of the chapter

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Abstract

The aim of this chapter is to present the unique aspects of the qualitative method that is rarely used against the quantitative method commonly used to obtain valid and reliable information in marketing research today. In this section, the qualitative method and the specific nature of the quantitative method are dealt with through an application beyond a theoretical-based debate. In this context, a marketing research has been conducted on how to improve the quality of service of a restaurant operation that wants to increase the quality of the services it offers to its customers. Qualitative and quantitative methods were used simultaneously in the marketing research implemented. The specific directions that each step of the marketing research carried out and the way in which researchers should use these two methods in the marketing research are revealed through the application. As a result of the research, it has been determined that the quantitative findings about the work to be done in order to increase the service quality in the restaurant operation is numerically higher, but it is more limited in terms of guidance to the business managers. Findings obtained by the qualitative method are found to be more specific in terms of content and more functional at the point of guidance to the administrators.

Keywords: qualitative method, quantitative method, service quality, restaurants

1. Introduction

The method to be used in a research is a matter that should be carefully considered by every researcher who wants to obtain scientifically valid and reliable results, because the method has direct influence on the whole process of the research from the theoretical framework, population and sample, data collection, and analysis process to interpretation of findings. From this aspect, choice of method has a critical significance for the researchers to achieve accurate and reliable results. The process of uncovering a scientific knowledge is a complicated process that compliments each other ranging from problem definition to theory development. The path that the researcher follows in this process is mainly influenced by his approach related to the existence of knowledge and how to reach it. In this regard, a researcher must be aware of the open or implicit paradigm that it has about the existence and the source of knowledge and must plan well how his values will be reflected in the research stages.

How to get accurate and valid information is the common interest of all branches of science. However, this matter needs to be paid more attention for researchers working in social sciences. Because people are in the center of studies in social sciences, and it is very difficult to generalize, systematize, and make reliable the results of a research. This situation also applies to marketing that has a dynamic structure in application area, and forms greatly the consumption behavior of people and the economic, social, and cultural changes generated from these behaviors in our day. Nowadays, the role of marketing is an undeniable fact in success of the organizations that profit or nonprofit. Moreover, the importance of marketing activities increases gradually with changes in market structures arising from globalization and information technologies. The focus point of marketing activities carried out by the organizations is people and organizations who have the potential to purchase the organization's products and services. The purpose of these activities is to effectively manage the customer satisfaction process that extends from the production of the products and services to their postpurchase expectations. Relaying exact information related to customer needs, requests, and expectations to the managers who are in decision-making position has a great importance in managing this process effectively. Otherwise, it is not possible for the organization to develop products or services that meet customer expectations or to respond to other expectations of customers.

In this context, marketing research plays an important role providing information about changes in market and customer trends to the managers, who are in decision-making position, to get effective results from marketing activities in organizations. Marketing research studies include a wide range of application areas extending from developing new products, expanding the existing market, which communication tools might be more effective in marketing products and services to what should be the optimum prices of products and services or how the packaging and store ambience affects consumer behaviors. Sometimes, marketing research is done to solve a specific problem that organizations face. Therefore, whatever scale and content, the validity and reliability of the results of marketing research is highly important for organizations. But, validity and reliability of the results obtained from marketing research studies are very important for organizations by all measures. Because outcomes of a marketing research offer a roadmap to organization about how customer communication will be carried out. On the other hand, validity and reliability of these outcomes plays an important role in marketing activities preventing practices that are not beneficial for organization or avoiding harmful marketing applications.

Generally, two methods are commonly used in studies conducted to reach valid and reliable information in marketing research studies. These are qualitative and quantitative research methods. Some researchers can use these two methods together (which are mixed method) according to the content and structure of the research. The purpose of this section is to reveal original aspects of the qualitative method in opposition to the quantitative method which is widely used to provide valid and reliable information in marketing research studies, and to scrutinize benefits of qualitative method to the researchers in the marketing research.

The aim of this chapter is to present the unique aspects of the qualitative method that is rarely used against the quantitative method commonly used to obtain valid and reliable information in marketing research today. In this section, the qualitative method and the specific nature of the quantitative method are dealt with through an application beyond a theoretical-based debate. The application was made in Oba restaurant, which operates in Bartin in Turkey and sets middle and upper income group customers as the target market. In the marketing research conducted, attempts have been made to determine the actions to be taken in order to improve the quality of the services provided. Qualitative and quantitative methods were used simultaneously in accordance with the target and a framework for their use in marketing research was presented. One point to be emphasized here is that this chapter is not prepared by focusing on the shortcomings of the qualitative or quantitative method. This section provides information on how researchers conducting marketing research will benefit from the qualitative method and what issues they should pay attention to when using the qualitative method, unlike the quantitative method. In addition, in the last part of the study, the qualitative method of contributing to the researchers working in the field of marketing research studies was addressed in practice.

2. The importance of marketing research

Today, with the influence of globalization and information technologies, it becomes increasingly difficult for managers to make accurate and effective decisions that can respond to changing customer demands and needs in a market that is becoming more and more dynamic. In dynamic market conditions, managers need to be informed about market trends, consumer trends, and developments in marketing activities so that they can make low-risk and effective decisions [1]. This is because no manager can make a correct and effective decision about the future at the desk in an environment where the flow of information about the market structures and the businesses operating in these markets is very fast and the decision-making time shortens and the uncertainty increases [2]. Marketing research is one of the basic tools that managers use to get the information they need to make better decisions. The marketing research identified by the American Marketing Association [3] as "Marketing research is the function that links the consumer, customer, and public to the marketer through information- information used to identify and define marketing opportunities and problems; generate, refine, and evaluate marketing actions; monitor marketing performance; and improve understanding of marketing as a process."

Marketing research helps a manager to make decisions based on highly scientific evidence from intuitive estimates in the decision-making process [4]. The knowledge gained from marketing research for an executive is valued from other information, and the information is obtained by using scientific method instead of intuition and prejudice. Managers can sometimes make decisions that provide extraordinary success and benefits for businesses, starting with their feelings and experience with products, markets, and consumers. However, in the case of a high cost to be paid if the decisions are wrong, every manager needs to be supported with scientific knowledge in the decision process, no matter how advanced his intuition and experience are. The ultimate goal of marketing research is to provide them with the information they need about products, markets, and consumers in order to make better decisions.

3. Marketing research process and method selection in the research process

Marketing research focuses on achieving valid and reliable results on the problem arising from in-depth research on a particular topic. Failure to obtain accurate and reliable results in an investigation may distract the manager or the consumer segment from a product that can be more successful, by pushing businesses to the wrong direction. Therefore, the scientific characteristics of an information obtained from a marketing research are very important for businesses. It is possible to use scientific research methods to obtain valid and reliable information about a problem by having a unique set of planned and systematic steps in continuous interaction with each other. A scientific marketing research process consists of seven stages, which can vary according to researchers. **Figure 1** shows the stages of a scientific marketing research process, which was prepared by using [4–6]. Each of the stages involved in the marketing research process is in the precondition of the subsequent stage. That is, any mistake in one of these stages is an obstacle to the progress of the subsequent process and adversely affects the validity and reliability of the results of the research.

The first stage is the identification of problem. At this stage, the problem that necessitates marketing research in business is revealed. It is clearly defined why the research is done and what is the desired outcome of the research. This stage is the most difficult, but seemingly easy, process of the marketing research. Because a mistake in this stage can make even a perfect research a waste of time. The second stage is the creation of the conceptual framework of the research. At this stage, the relevant literature is searched to determine the theories on which the research is based, the variables of the research, and the hypotheses to be tested in the research. Conceptualization is an informal work on information already available and appropriate in the

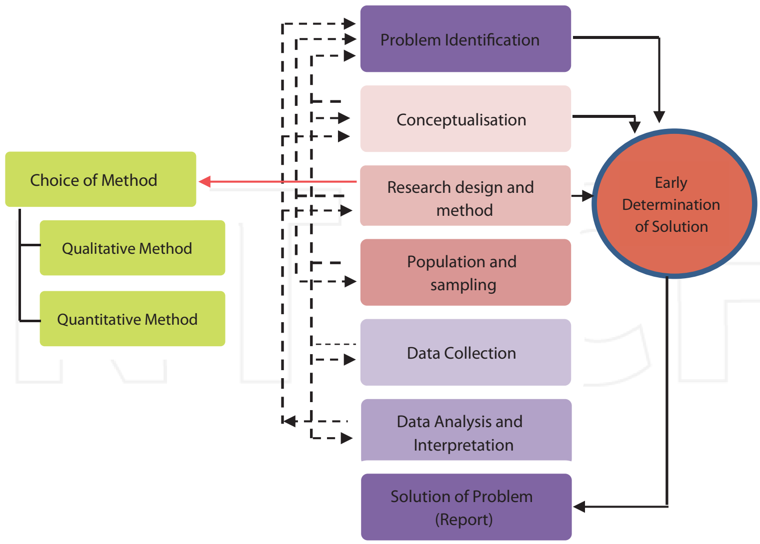

Figure 1. Marketing research process and method selection in the research process.

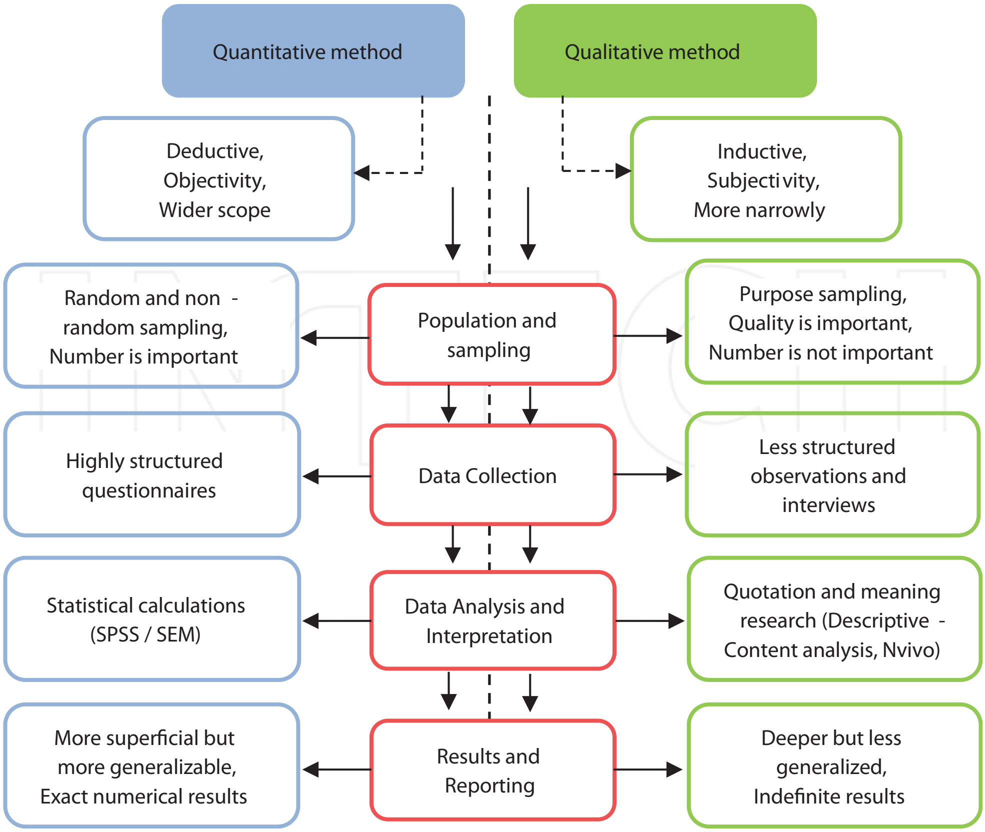

Figure 2. Differences between qualitative and quantitative methods in the steps following the choice of method.

problem area. This stage can help identify the problem and give you an idea of what information should be obtained if needed [4].

The third step is to design the research and determine the method to be used in the research. This stage includes determining the most appropriate research design that can be used to achieve the purpose of the research. This is the stage in which the researcher decides which research method should be used to obtain the required data, that is, the method selection in the research. The fourth step is to determine the population and sample of the research. At this stage, the population to be generalized by another expression to which the results of research are valid is determined. In this direction, the selection of the sample is decided at this stage, which of the individuals or institutions included in the designated application of population will participate in the survey.

The fifth stage identifies the means of data collection. At this stage, it is decided how to measure the research variables and which data collection tools will be used. The validity and reliability studies of the data collection tools are made at this stage and the most suitable measurement tool is tried to be determined. The sixth stage is the analysis and interpretation of data. The analysis techniques to be used in the analysis of the obtained data are determined in this step. In addition to this, comments are made at this stage on the meaning of the findings obtained as a result of the analysis. The seventh stage is the stage in which research findings are reported and are ready for publication. At this stage, the studies carried out in the research process and the results emerging from this research are prepared and presented in a certain order. The presentations of the results include the research studies related to this topic, and the comments about the overlap of the results of the research with the findings that were presented earlier or the nonconformity are also given in this section.

In this section, the processes involved in a marketing research are dealt with in the context of a restaurant business. In this process, first, information about the business where the marketing research will be realized is given. Later on, the problem that required marketing research was put forward and the conceptual framework of the research was established. In the following process, it is explained how research design is done in terms of qualitative and quantitative methods. After this step, a marketing research has been carried out by taking each process, from population and sample selection to analysis and reporting. In addition, every effort has been made to draw attention to the unique nature of the qualitative method in every aspect of marketing research. In **Figure 2**, the differences between qualitative and quantitative methods in the research process are outlined.

4. Oba restaurant

Oba restaurant is a food and beverage business operated by an investor and it is located abroad in 2010 with a capacity of 120 people in the center of Bartın province in Turkey's Western Black Sea region. The business offers comprehensive food and beverage services to its customers, including special meals, appetizers, and kebab varieties from Turkish cuisine. The restaurant is very close to the city center and to the public and local government service buildings, especially the governor's office. There are indoor, summer, and winter gardens for eating in the restaurant. Oba restaurant not only offers its customers tasty delicacies but also offers opportunities for invitations, business meetings, and all special events. In addition, it has a children's park designed for families with children in the establishment. Please see for more information "*http://bartinoba.com/#home*."

The restaurant's customer base is composed of people in the middle and upper income group. The restaurant promises to spend a peaceful time away from the noise of the city but within the city with its extensive menu choices for this reason, the quality of the services offered at the restaurant is inevitable for the success of the quality operator.

5. Determination of research problem

Marketing research is generally undertaken to solve a specific problem that business managers have already encountered with products, markets, and consumers. Marketing research can sometimes be done to improve the quality of products and services offered in a future project idea or existing market conditions. The first step in a marketing research is to determine the problem of the research. In other words, the problem that needs to be investigated and the meaning of the research to be carried out express for the business.

When identifying a problem in a marketing research, it is important to note that the problem itself and the elements that cause the problem are not mingled. For example, a research problem with the question of "What is the reason for the decrease of the profitability of the business?" for a rapidly decreasing profitability problem or "Is the question of profitability related to the presented product?" or "Is there an effect in profitability of advertising and promotion channels?" are the questions that require different research methods. Therefore, in a marketing research to be done, the frame to cover the problem should be well-defined and care should be taken not to make the frame presented too narrow or too wide.

Another issue that needs to be considered when determining the problem in marketing research is the simple and clear presentation of the problem. In addition, it should be well planned how the research to be done on the problem posed will serve the business objectives in the middle and long term. Otherwise, only a marketing research with a focus on the current problem can be inadequate in terms of presenting a future-oriented projection to the manager in a rapidly changing market environment. In other words, marketing research should be an effective tool in providing information that will serve business executives in the medium to long term, and exploring market opportunities [5].

In this context, main research question driving this study is set as "How can the quality of service offered to customers in the restaurant be improved?" In fact, research identified is related with increasing customer satisfaction in the business because quality of service is one of the most important determinants of customer satisfaction [7]. The ultimate output for the business is increasing profitability. The effect of quality of service on customer satisfaction at restaurants is directly reflected in customer loyalty [8, 9]. In other words, there is a direct relationship between the variables of service quality, customer satisfaction, and customer loyalty. However, the marketing research conducted in this application has been reduced to a narrower framework in which the results are easy and clear, by eliminating the problem from such variables.

Drawing the boundaries of a research for the people conducting marketing research at the stage of problem-solving is necessary to reduce the uncertainties that may be faced in the future and to achieve effective results. In this research, measuring the quality of services provided by food and beverage business and the aspects which make customers satisfied from the business will be revealed. In addition, the findings will provide a projection to the business executives at the point where the customer's expectations are set.

6. The conceptual framework of the research

In marketing research, following the determination of research problem, the theoretical framework and infrastructure is established in relation with that problem. The essence of this stage already includes the selection, adaptation, and development of appropriate theoretical frameworks to form the substructure of the research [5]. The existing and appropriate information on the problems raised from this aspect should be collected and the conceptual framework of the research should be established. As pointed out [4], this stage can help to identify the problem and provide insight into what information should be obtained in a more comprehensive way if needed. Research in this regard should be conducted in a comprehensive manner in the scientific research, reports, and the bulletins conducted on the problem.

Many researchers in practice think that the role of this stage within the research process is less important because it is thought to be nonfunctional, and it may take less time for this stage. However, it should not be forgotten that the experience of others is less costly. Any scientific information that can be reached at this stage will facilitate the researcher's work in the process, if scientific work is accumulated for many years and is considered to have been tested for validity and reliability. The conceptual framework of this research was built on service quality in restaurant businesses. In this section, the studies on the quality of service and the quality of service in food and beverage business are briefly mentioned and an outline for the theoretical framework of research is tried to be indicated below. However, the real prospect of conceptualization comes from the fact that other research results related to the subject to be investigated are analyzed, sorted, and made useful for this research in a certain order.

Literature

The quality of service is expressed in the literature as the difference between the expectations of customers from the service provider's performance and the evaluations of the services they receive [10–13]. Lehtinen and Lehtinen [10] reported that service quality is composed of three dimensions. These are physical quality, corporate quality, and interaction quality. According to Gronroos [14] service quality is composed of two dimensions; technical quality and functional quality. The most widely accepted approach about the extent of service quality is developed by Parasuraman et al. [13]. They summarize the main determinants of service quality under five headings: physical components, reliability, responsiveness, assurance, and empathy in the service quality measurement model, which they call as SERVQUAL. Developed by Parasuraman et al., this structure is widely used to measure the quality of services offered both in industrial businesses and service businesses.

When it comes to food and beverage business, quality of service is one of the critical issues that must be carefully considered for food and beverage operations in an increasingly competitive environment as in other sectors, because quality of service is a necessary condition for the business to develop good relations with its customers [9]. There are many studies on service quality in food and beverage businesses. In these research studies, it is observed that the quality of service in restaurant business has a positive impact on customer satisfaction [15–17] and on customer loyalty [7, 9, 18, 19].

Yüksel ve Yüksel [20] stated that service quality is the leading factor affecting the satisfaction of tourists in restaurant services. Researches [16] examined the factors that affect customer satisfaction in food and beverage business in terms of food quality, service quality, price, ambiance of the restaurant, and restaurant location. As a result of the research, the first three factors affecting customer satisfaction in restaurant establishments were food quality, physical environment, and service quality. Besides, it has been revealed that the location of the restaurant has no effect on customer satisfaction. Ha and Jang [21] reached the conclusion that the quality of service, ambiance of the restaurant and food quality in restaurant businesses were influential on customer satisfaction and customer loyalty. Similarly, it is stated that restaurants that have the necessary qualities in terms of food quality, prices, and service quality have a great chance of maintaining customer loyalty [19]. According to Barber et al. [17] the restaurant customers are looking for three attributes in businesses. These are food quality, physical environment, and service quality.

In addition, it is found that ambient conditions, design, physical and social factors are important determinants of service quality in restaurant establishments, and their research has concluded that there is a relationship between the quality of the physical environment and the customers' repurchase intentions in restaurants [17]. Conversely, Andaleeb and Conway [15] found that physical design and appearance in restaurant establishments did not affect customer satisfaction.

Lee [22] stated that quality of food, quality of service, cleanliness, suitability of location, speed of service, and reasonable price are factors affecting customer satisfaction. Similarly, according to Kim et al. [7], factors affecting customer satisfaction in restaurant businesses are food quality, atmosphere, service quality, convenience and price, and value. It is point out that food quality is the most important determinant of customer satisfaction in restaurant business [16, 21]. Also it is stated that the price is indicative of the quality of service offered at a restaurant and is an important factor affecting customer expectations [15]. Hyun [23] state that the behavior of regular customers in chain restaurants is affected by five factors. These are food quality, service quality, price, location, and environment.

On the other hand, general cleaning of the restaurant, food and drinks, and staff is very important for the customers. This is because customers perceive the food and beverage businesses that cannot provide expected hygiene and cleanliness conditions as low quality service providers [24, 25]. Chen [9] has shown that the quality of service in restaurant businesses affects the customer loyalty positively. Finally, Stevens et al. [26] adapted the SERVQUAL service quality measurement technique to restaurant operations and improved the DINESERV scale. This scale consists of five dimensions as it is in the SERVQUAL scale. These dimensions are physical elements, reliability, responsiveness, assurance, and empathy. They have developed this scale, which has been adapted for expressions of these dimensions and adapted to 29 restaurants. Physical elements in the DINESERV scale for restaurant establishments are the exterior of the restaurant, the menu, the ambiance, decor, and cleanliness. Reliability dimension; is related with the confidence of the customer in terms of price, speed of service, and correct product. Readiness dimension is about employees making extra effort to provide quality and fast service and helping each other. Assurance dimension is related with the quality of employees, and the customer's feeling of assurance in terms of food quality and other aspects. Empathy dimension is related with customer's feeling of special in the restaurant, the confidence provided by employees to customers. Despite being criticized by some researchers [15] due to its dimensions, the DINESERV scale is widely used for the measurement of service quality in restaurant businesses [7, 27].

7. Marketing research design and method selection

Research design is a framework for setting how a marketing research project will be conducted. This framework includes the details of the path that the researcher will follow to obtain the necessary information in order to formulate and solve the problem. Determination of the appropriate method in a marketing research plays a decisive role on the researcher's approach to the subject in the later stages of the research. For that reason, in research design, the researcher needs to take into account the nature of the problem of research, the resources such as time and money to be invested in research, and the ability to obtain data. Undoubtedly a good research design will ensure that the marketing research project is carried out efficiently.

Research design starts with determination of problematic and conceptual frame and then selection of method to be used in research and selection of appropriate sampling technique, determination of data collection techniques and determination of techniques to be used in data analysis according to the determined method [6]. It is described that the processes involved in a research design are as follows [5]:

- Identification of required information.
- Deciding whether the design is exploratory, descriptive, or causal.
- Designing understanding or measuring techniques.
- Creating a suitable form for data collection or survey and pre-test.
- Determining qualitative or quantitative sampling process and sample size.
- Developing a plan for qualitative or quantitative data analysis.

In the previous section, necessary information was gathered in order to define the research problem and the conceptual framework of the study. The critical parameter in determining the research design after this point is the nature of the research. A subject on which numerous studies are conducted, the variables are clearly defined, and for which the reliability and validity has been tested at measurement point is suitable for descriptive and explanatory research approaches. Such as market orientation and financial performance. Research subjects without adequate conceptual framework, without sufficient research on defining the variables and with no reliability and validity tests are more suitable for exploratory studies. Such as glass roof syndrome among female employees and blue ocean marketing. However, one thing to keep in mind is that the researcher himself is the factor that shapes the nature of the research. For example, a researcher might turn a topic of research into thousands of meta-analytic techniques into an exploratory study. Or, a topic with limited information on it may become a descriptive structure through simple scales. Here, it must be clearly stated that a researcher's handling of the issue is concerned with his purpose, ability, possibilities, and intentions.

The marketing research to improve the quality of the services offered at the restaurant was designed as a descriptive research in terms of qualitative method and exploratory quantitative method. The exploratory nature of research is that customers in restaurant businesses use what expressions they use to describe quality service, what the quality of service for restaurant customers means and what the expectations of customers are when they operate at the service quality point. The descriptive direction of the study is the statistical measurement of the level of perception and expectation of the quality of the services offered by the customers by starting from the research studies about the service quality in the restaurant business.

8. Determination of research population and sampling

There is a close link between how the sample is determined in one study and the preferred method in the study. Because the quantitative method requires a sample with the ability to represent numerically larger, the qualitative method focuses on the quality of the samples included in the research contrary to the numerical size. For this reason, the sample model used in qualitative research studies is called as the "purposeful sampling [28]." In the purposeful sampling, the main purpose is to gather in-depth information about the person, event, or situation that constitutes the subject of the research in terms of a specific purpose [29]. In the quantitative method, there are two types of sampling in general. These are probabilistic sampling and nonprobabilistic sampling. Probabilistic sampling implies equal opportunity for the items in research population to be included in sampling. Nonprobabilistic sampling refers to sampling types in which the units forming the population are not equal in chance of sampling. It is not always possible to use sampling techniques in social science research although there are many superior features of probability-based sampling techniques. This research was a typical example of that.

The population of the marketing research that has been carried out are the customers of Oba restaurant operation in Bartın. This definition of the population does not make any difference in terms of the methods to be used in the research. In other words, the method used in this research is neither quantitative nor qualitative. However, there are significant differences between the two methods at the point of reaching the designated population.

The critical point in determining the sample in terms of the qualitative method is the nature of the sample, which is largely determined by the numerical majority. In this study, purposeful sampling method was used in accordance with the nature of qualitative research. In this context, the customers of the Oba restaurant business, which constituted the population of the researcher, were observed for 5 days. As a result of evaluations made by consulting with the business manager, it was determined that the customers of the restaurant could be handled under four groups. These groups are; public employees, families with children, meetings and organization groups, and other customers. Therefore, data collection from these four groups in the survey on the quality of the services offered in the business is important in terms of the validity and reliability of the data to be obtained.

In the quantitative method, it is necessary to take into account the fact that the correct sample is obtained before the numerical sufficiency. In this study, easy sampling among nonprobabilistic sampling methods has been used. The reason for not using probabilistic sampling techniques in the study is the lack of a systematic account of who came to the restaurant, where they came from, how many people they will be or how many times they came. That is, limited information about restaurant customers requires the selection of a technique that is not based on the probabilistic sampling. When the sample size is considered numerically, it is estimated that about 12,000 restaurant services are annually provided in the business. In this direction, the size of the sample to be reached in the survey was determined as 370 persons with a 95% confidence interval.

9. Gathering the research data

Data gathering is the period in which the information needed to reach the purpose determined in a research is obtained from the units that constitute the field of application of the research. In order to obtain healthy and objective results in a scientific research, it is necessary to determine the appropriate data collection technique for the purpose of the researcher. The research data is the output of the population and the sampling process, the input of the data analysis and interpretation process. For this reason, researcher's use of incomplete or incorrect data collection or incorrect data collection techniques can result with erroneous, useless, and invalid data. It is possible to talk about two types of data used in the marketing research. These are primary data and secondary data. The primary data is the unprocessed data collected from the units/people in the research population directly related to the research topic. Secondary data are data collected by other researchers related to the research topic. There are some authors who state that such data should be considered as primary data. In addition, the secondary data includes other sources that are not related to the research topic but which can be used in the research, such as indexes, reports, and corporate bulletins.

In terms of methodology, the identification of the problem of research in a marketing research and the collection of secondary data to contribute to its solution does not make any difference. However, in the collection of primary data needed in a study, it is very important that the researcher deals with qualitative or quantitative approaches. Because both the qualitative method and the quantitative method have their own data collection techniques. However, in each of the data collection techniques, the development of the data collection tool and the role of the researcher in the data collection process vary. The data collection process in marketing research consists of two phases. The first is the creation of the data collection tool necessary for the collection of research data. The other is to collect the information required from the units/participants through the data collection tool.

9.1. Creating data collection tools

Quantitative method is used in marketing research studies are obtained by using survey technique. In qualitative marketing research, data is obtained by using interview, observation, and document review technique. Qualitative data can sometimes be obtained by using open-ended questions and by using survey techniques. In this context, it is clear that the research

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method and the data collection method preferred by the researcher will be a determinant in the formation of the data collection tool. For example; in qualitative research the questions are open-ended and there are no yes or no questions. The real advantage of the qualitative research method is its in-depth character. Each individual participating in the survey may wish to express opinions on any aspect of any subject and may do so. Surveys used as data collection tools in quantitative research studies are highly structured. That is, the researcher gives a questionnaire to the participant that clearly shows the boundaries and focuses on the answers they have given to the questions that are asked to them rather than the personal thoughts about the topic.

In qualitative research based on the practice, data collection techniques are interview and observation. Observations are realized by the researcher becoming part of the event and the case itself, or by the researcher observing the event from the outside. In this research, the perception of the quality of the services offered by the customers at the restaurant and how to improve the quality of the services offered are being investigated. The attitudes, gestures, and mimics of the customers at the restaurant and their present attitudes can be obtained through the observations. However, the findings obtained in this way will not be enough for the research to reach its purpose. Because it is really hard to determine whether customers' wishes and expectations are met or not by observing them, and the findings obtained in this way can go one step further than reading the intention. In fact, it is not right to choose observation-based data collection techniques when customers have the opportunity to directly learn their perceptions, complaints, and expectations about the quality of the services offered. In this study, the interview technique was used for the collection of data. Interview technique is a data collection technique that the researcher obtains from the participants by directing their opinions on a subject or case in the form of individual or group interviews. Interview technique and research data can be collected in three ways. These are unstructured interviews, semistructured interviews, and structured interviews. In this study, the semistructured interview technique was used. The semistructured interview technique allows the researcher to determine whether the questions leading to the participant are outlined in the main lines, but to add or subtract questions to the researcher and act according to the flow of the subject. In this context, questions about the quality of the services offered at the restaurant by the way of the findings obtained during the conceptualization process are determined as follows by taking the opinion of three experts in tourism and marketing fields.

1. How would you define quality service for any restaurant establishment?
2. What are your expectations from running a restaurant in terms of service quality?
3. Can you assess the quality of the services offered at this restaurant in terms of physical characteristics, quality of food, cleanliness, and confidence?
4. Would you share your opinions about the restaurant employees?
5. Can you share the facts whether you are satisfied or not satisfied with the quality of the services offered at the restaurant?
6. Which quality of restaurant would make you happier when you think about the services offered at the restaurant?

The data collection technique in quantitative research is questionnaire. The questionnaire is based on measuring participants' attitudes and behaviors about a subject or phenomenon by means of a predetermined systematic structure. There are two ways in which a survey questionnaire is established. The first is to construct a questionnaire with validity and reliability studies by putting out the items that express the variables and dimensions of a subject. This is a really long and difficult process for a researcher. The second way is to use a scale that has been tested with the validity and credibility of the subject. The method of using the questionnaire in scientific research studies is widely used. It should be noted that the validity and reliability of the scales used have been tested in addition to the compatibility with the subject.

The questionnaire for collecting the data needed in this study consists of two parts. In the first part, there are four statements to measure the demographic characteristics of the participants. In these statements, participants' gender, age, income level, and education level were examined. In the second part, there are statements about the expectations and perceptions of the participants regarding the quality of the services offered at the restaurant. The demographic characteristics of the participants were measured by the nominal scale and the evaluations of the service quality were measured by the 5-point likert-type ranking scale.

In this study, DINESERV scale, a validated and reliability scale, was used as data collection tool. The DINESERV service quality measuring instrument was adapted by Stevens et al. [26] for restaurant operations by SERVQUAL service quality measurement, as revealed by Parasuraman et al. [13]. The DINESERV scale consists of 29 propositions instead of 22 propositions. There are five dimensions such as physical characteristics, reliability, emotion, trust, and empathy, like the SERVQUAL model. On the left side of the scale are the expectations of customers from a service operation. On the right-hand side are the evaluations of the customers for which they are serviced. Thus, the quality of the services offered by the operator is revealed by comparing the findings between the customers' perceptions and expectations. This method is expressed as gaps analysis in service quality measurement.

The validity and reliability of the data collection tools presented before the data collection phase in scientific research should be tested. In this study, the questionnaire for validity and reliability of qualitative data was tested through interviews with five restaurant customers. Findings obtained from the interviews were shared with specialist academicians in the field of marketing and tourism where the questionnaire was formulated in writing. The academics have stated that the question "what are your thoughts about the quality of service offered in general at the restaurant?" Is very general and should be removed from the interview form. In this direction, this question was removed from the interview form and it was finalized.

A pretest was conducted to test the validity and reliability of the questionnaire designed to collect quantitative data of the study. The survey questionnaire was applied to 42 restaurant customers. The obtained data were analyzed in the SPSS 18.0 package program. As a result of the analysis, the reliability coefficient of service quality scale (Cronbach alpha) was 0.94. This value indicates that the quality of service survey conducted is very reliable in collecting research data.

9.2. Data collection

The collection of research data is the process of obtaining the information needed by the person or units in the population or sample. This process is carried out through participatory or unattended observations in the qualitative method, or through individual or focus group interviews. In the quantitative method, the survey is conducted by face to face, by phone, fax, mail, or e-mail.

Qualitative data of the study were obtained on the basis of interviews with restaurant customers. During the process of obtaining the data, the customers who received food and beverage service at the restaurant were informed about the subject after the meal and the request was forwarded. Talks with the customers who agreed with this request were held in the restaurant between November 14, 2016 and January 7, 2017, in the natural environment where the participants had a restaurant service. The interviews were recorded with the voice recorder upon permission from the participants. When the participants were determined, four groups expressed in the sampling process were taken into account. We interviewed eight people from each group and the qualitative data of the research were obtained from a total of 32 persons.

Quantitative data of the research was obtained by face-to-face application of the research questionnaire to restaurant customers. The implementation of the questionnaire was carried out immediately after the customers' dining experience at the restaurant. The survey was administered to a total of 372 restaurant customers between 15 December 2016 and 10 January 2017. However, it was seen that some participants have not fully answered the research questionnaire, responded to only one of the perceptions or expectations. These questionnaires, which are thought to affect the reliability of the results of the research, have not been included in the data set. In this context, research data were obtained from 308 restaurant customers.

10. Analyzes and findings

The data obtained at the data collection stage is usually raw data and is not available in marketing decisions. For this reason, in order to obtain the information required to solve the research problem, it is necessary to analyze the raw data and make it possible to use the decision maker without much effort. In this regard, data analysis involves the transformation of raw data into the information needed to solve the research problem.

10.1. Qualitative data analysis

The nature of the data obtained in the investigation determines which data analysis should be used in a research. In the analysis of qualitative data, analysis techniques such as phenomenological analysis, content analysis, descriptive analysis, built-in theory, or constant comparison analysis, discourse analysis and ethnometry can be used [28]. In this study, the data obtained in order to achieve the determined purpose were analyzed with descriptive analysis technique. In the descriptive analysis technique, the data are summarized and interpreted under predetermined titles and dimensions. The purpose of this analysis is to introduce raw data in a way that readers can understand and use if they wish [30]. For this purpose, descriptive analysis techniques often include direct citation in order to reflect the views of the investigator or observer in a striking way [28].

For the analysis of data, it was first determined under which dimensions the responses of restaurant customers can be analyzed. In this context, the data obtained from restaurant customers are considered in terms of six dimensions. These dimensions are customers' perceptions of quality service in restaurants and expectations of a high quality restaurant, in particular the opinions of customers about Oba restaurant and restaurant employees, satisfaction with the quality of the services offered at the restaurant and the qualities that the restaurant should have in order to provide better quality service.

10.2. Qualitative findings

Qualitative findings of the study include participants' evaluations of the restaurant's service quality. Firstly, the demographic characteristics of the participants were examined. Later, the participants discussed their thoughts on the quality of the services offered in restaurants in general and the evaluations of the quality of the services provided in the Oba restaurant.

Fourteen of the participants interviewed about the quality of the services offered at the restaurant were female, 18 were male. Eight of the participants are from the public employees, eight from the children's families, eight from the organizers of the meetings and group organizations and eight from the other groups. Eleven of the participants are in the age range of 18–29, 16 are in the age range of 30–39, and five are in the age range of 40 and more. Fourteen participants had 2500–3500 TL and 10 had 3501–4500 TL as eight had 4501 TL and a higher income.

The qualitative data, including the evaluations of the customers' service quality of the restaurant, were examined in the frame of the determined analysis. As a result of the examination made in **Table 1**, findings in the foreground in the analysis of qualitative data are shown. As a result of the analysis, it was determined that the customers defined the quality service in the restaurants as cleaning (27), food quality (28), physical appearance and ambiance (23), service speed (7), and personnel behavior (5). Some customer's opinions on quality service in restaurants are given below:

> "When I enter a restaurant, first of all i look at the layout of the tables, the cleanliness of the floor and the clothing of the staff."
> "I think the most important indicator of quality service in a restaurant is the quality and presentation of the food and drinks offered in there."
> "I think the quality of service in a restaurant is equal to the attraction of the atmosphere."

When participants analyzed the expectations of a restaurant with a high quality of service, 27 participants expressed that they expect a quality restaurant to expect cleanliness and hygiene,

	Items	Public employees	Families with child	Meeting groups	Other customers
Defining quality service in restaurants	Cleaning	7	8	6	6
	Food quality	8	7	6	7
	Physical characteristics and ambience	5	6	8	4
	Service speed	4	-	1	2
	Personnel behavior	-	2	1	2
Expectations from a restaurant served high service quality	Cleaning and hygiene	7	8	5	7
	Appealing foods for taste	8	7	7	8
	Physical characteristics and ambience	6	7	8	6
	Service speed	5	2	5	5
	Personnel behavior	6	7	5	5
	Feeling special	4	5	7	3
Overall evaluations about Oba restaurant	Physical properties	6	5	8	6
	Food quality	6	6	5	5
	Cleaning	7	8	6	5
	Assurance	4	3	5	2
	Playground	-	4	-	1
Evaluations about staffs on restaurant	Physical a characteristics	5	5	4	3
	Politeness	3	4	5	2
	Debonairness	7	6	4	4
	Willingness	5	4	5	3
Evaluations of restaurant satisfaction	Physical characteristics	7	6	8	4
	Cleanliness	6	5	5	5
	Reliability	4	2	3	3
	Food quality	3	2	3	2
	Staff quality	4	4	3	1
Qualifications that the restaurant should have	Parking	6	5	6	4
	Food quality	3	2	2	4
	Pricing	4	3	3	3
	Children's playground	-	4	-	1

Table 1. Summary of findings obtained from analysis of qualitative data.

and that 30 participants expect foods that appeal to their taste. A total of 27 of the respondents expressed that they expect the physical appearance and ambience of a restaurant with a high quality of service to be in harmony with the living standards. In addition, 17 of the respondents expressed a high expectation of a restaurant with fast service, 23 staff behavior, and 19 restaurants as a special feeling of the restaurant itself. Some customers' expectations from a restaurant with a high service quality are described below:

> "When you enter a restaurant with a high service quality, you should feel it. In such a restaurant you feel that with its cleanliness, ambience, eye-pleasing services, and taste of foods."
> "My expectation from a high quality restaurant is maximum care for food quality and hygiene in the food that is offered to us. It is our health that matters."
> "Our meals are usually in the form of business meals. Therefore, the physical environment and ambience of a restaurant is very important to me."

Participants were asked to rate the quality of the services provided in the Oba restaurant operation in terms of physical characteristics, quality of food, cleanliness, and assurance after the general evaluations of service quality in restaurant business. Among the respondents; 25 said that Oba restaurant had physical qualities, 22 that they found satisfactory food quality, 26 said that the place was clean and 14 considered it as trustworthy. In addition, five participants stated that it is important for the restaurant to have a children's playground. Two participants' opinions on Oba restaurant are as follows:

> "I can say that i am a regular customer at Oba restaurant. First of all, the restaurant is satisfactory in terms of physical environment and ambience, so if you come here you have an idea about the service you will get. At the restaurant, you can understand the quality of the rest from the way the food is served."
> "When I first come to the restaurant, the first thing that grabbed my attention was the cleanliness of the environment. It's really an elegant environment."

When the participants' views were taken from the negative point of view, 10 participants stated that their expectations in terms of food quality were not met, although the restaurant did meet the expectations physically. Among the participants, five of them stated that they preferred the restaurant because it has a childrens' playground. In addition, four participants showed that the ambiance at the restaurant could be more impressive with a few small operations. Five of the participants said that hygiene is problematic because the outdoor section of the restaurant is on the roadside. Finally, 7 participants indicated that the prices were in line with the physical characteristics but the food quality did not support the restaurant's pricing policies. One of the participant's opinion who stated negative opinion about the quality of service of the restaurant is as follows:

> "I cannot say that service quality of the restaurant is bad, but it could be better. The other day we were eating in the garden area and a truck went very fast. Everywhere was covered with dust. I suppose that it does not happen frequently, but it happened. I think that part of the restaurant should be closed."

When participants' opinions on the restaurant's staff were examined, 17 respondents indicated that restaurant employees were physically well-behaved, 14 said that restaurant employees were polite, 21 said restaurant employees were geniality, and 17 said that restaurant employees were willing to serve. On the contrary, three participants stated that the behavior of employees towards each other is very sincere and that these relations should be formulated in an official structure. Lastly, the two participants stated that their clothing does not support the restaurant's image and needs to be improved. Some of the participants' views on the subject are as follows:

> "The staff are very sincere and smiling, you feel it as soon as you enter the restaurant."
> "The restaurant staff are very interested in your needs and expectations. They come without you call them. They do their job with love, which is a very nice thing."

When participants' evaluations of their satisfaction with the quality of the services offered at the restaurant were examined, all participants were generally satisfied with the services offered at the restaurant. Participants expressed their satisfaction with Oba restaurant in terms of physical characteristics (25), cleanliness (21), reliability (12), food quality (10), and staff quality (12). Four of the participants said that the Oba restaurant was one of the rare places where they could welcome friends or colleagues in the city where they live. Female participants expressed that they were very happy that the restaurant had a children's play area, four of them said that they ate the food comfortably by leaving their children in the play area. Nine of the participants said that Oba restaurant has a quality of service in Bartın that is above standards. One of the participants has shared an experience in the restaurant as follows:

> "It was the time when I newly arrived at Bartin. I came for dinner in here. I have ordered Lahmacun. The orders arrived in ten minutes, but the Lahmacun was overcooked to me. I looked at the waiter right away. He arrived quickly and asked me "How may I help?" I said that Lahmacun was overcooked. He apologized and replaced the food."

When the dissatisfaction of the customers at the Oba restaurant was examined, 23 of the participants stated that they had no dissatisfaction until today. On the other hand, 11 of the respondents stated that the lack of parking space in the restaurant is a dissatisfaction for them. Four of them have stated that they had encountered a problem with hygiene, such as glasses or tables being stained in the restaurant. Three participants stated that they sometimes had a noise problem due to the location of restaurant, which is by the roadside. Two of the participants stated that the children's play area is neglected and may be more reliable. Some of the participants' thoughts about the subject are as follows:

> "I can easily say that I did not have a significant problem in the restaurant. But I should also say that it would be better if the restaurant had a car park. We came with a friend the other day and I had to leave the car three hundred yards away."
> "This is my third time in this restaurant. Last time I came, there was a stain on the glasses on the table. They changed the glasses when I told them. But I think from now on, whenever I come, I'm going to check the glasses first."

Which quality of restaurant would make you happier when you think about the services offered at the restaurant? was the final question asked. Participants' responses to the increase in service quality at the restaurant; parking area (21), food quality (11), pricing (13), and children's playground (5). A total of 21 of the respondents answered this question as the inadequacy and irregularity of the parking area of the restaurant. Three of the respondents stated that the food range offered at the restaurant should be increased by adding stew food varieties. Nine of the participants stated that they would feel happy if the restaurant made a discount in food prices. Finally, four of the participants stated that it is important for them to carry out the safety and maintenance of the children's play area. Some of the participants' opinions about the subject are as follows:

> "I usually eat lunch outside. And I regularly come to this restaurant. But you sometimes look for different flavors. The restaurant's menu is rich. But some kinds of stews must be added to the menu."
> "The most important reason we prefer this restaurant is the playground. We can eat our food comfortably by leaving our child to the playground. But last week my son rolled out of the skateboard and the net that should keep it was torn. My son is hurt. Therefore, the children's playground needs to be renovated."

10.3. Quantitative data analysis

Quantitative data analysis refers to the conversion of data into information by making use of numerical representations of observation results obtained to describe and explain facts. Statistical techniques are used in the analysis of quantitative data. Choosing the test statistic appropriate to the research model and hypotheses is important to obtain meaningful analysis results. The analysis of the quantitative data of research consists of two parts. These are the analysis of demographic data and the differences between the expectations and perceptions of the participants about the service quality of the restaurant. SPSS 18.0 package program was used for analysis of research data.

Descriptive statistics have been used in the analysis of demographic data. Paired simple T-test was used to analyze participants' expectations and perceptions of service quality, and participants' expectation and perceptions of service quality at the restaurant level were compared. However, in quantitative research, reliability analysis should be performed on the data obtained before the data analysis. Results of the reliability analysis showed that the Cronbach's

α coefficients for all the expectation and perception attributes, ranging from 0.913 to 0.956, were quite high.

10.4. Quantitative findings

The quantitative findings of this study consist of two parts. The first part is the demographic characteristics of the participants. The second part is the participants' expectations and perceptions about the quality of service of the Oba restaurant.

When the demographic characteristics of the participants are analyzed; we see 136 women, 172 men. A total of 28 of the participants are in the age range of 18–28, 35 are in the age range of 36–45, and 40 are in the age range of 45 and more. When the level of education of the participants is analyzed, 8 primary education, 8 secondary education, 77 high school, 155 university, 40 masters and doctoral level education. When monthly income levels of the participants' families are examined; 16 of them are 1500 TL, and six of them are from Turkey, 36 of them are between 1501–2500 TL, 61 are from 2501–3500 TL, 49 are from Turkey, 3501–4500 are from Turkey, and 146 are from Turkey and 4501 TL. Finally, when the participants' monthly frequency of eating out is examined, 18 of the participants eat once a month or less, 28 twice a month, 40 a month three times, and 222 a month four times a month or more.

After examining the demographic data of the participants, the expectations and differences regarding the quality of service provided in the Oba restaurant operation were analyzed. Paired t-test carry out to test the significant difference between two means of expectations and perceptions. **Table 2** shows the differences in expectations and perceptions regarding the quality of the services the participants received from the restaurant.

Table 2 shows the results of the paired-samples t-test conducted to demonstrate the differences between the expectations and perceptions of customers regarding the quality of the services offered at the restaurant. Positive scores indicate that the service quality of the restaurant is higher than expected, while negative scores indicate that the service quality is expected to be lower than expected.

As a result of the analysis of the quantitative data obtained, it is the reliability (4.81) that customer has the highest expectation from Oba restaurant operation. The reliability dimension at the customer expectation dimension is followed by a dimension of enthusiasm and empathy with an average of 4.70 assurance and an average of 4.66. The lowest level of expectation of customers from restaurant business (4.63) is tangibles. Again, customers perceive the lowest quality of service in the restaurant is tangibles with an average of 4.35. Besides, the dimension that the customers perceive the highest quality of the restaurant (4.58) is reliability. The reliability dimension is followed by the assurance dimension with an average of 4.51. Dimensions in which the difference between the expectations and perceptions of customers' service quality is the highest; Tangibles (−0.28), empathy (−0.25), and reliability (−0.23).

In addition, factor analysis was conducted to reduce the statements related with service quality to significant dimensions. As a result of the analysis, 29 expressions were collected under five factors; assurance, reliability, responsiveness, empathy, and tangibles. These factors are consistent with the DINESERV scale. In the factor analysis, the KMO value is 0.909 and the total

Attributes	Expectations means (SD)	Perceptions means (SD)	(PM-EM)	t-value
Tangibles	**4.63 (0.38)**	**4.35 (0.41)**	**−0.28**	**10.78**
This restaurant has visually attractive parking areas and building exteriors.	4.37 (0.77)	3.66 (0.82)	−0.71	11.28
This restaurant has a visually attractive dining area.	4.61 (0.54)	4.26 (0.63)	−0.35	8.80
This restaurant has staff members who are clean, neat, and appropriately dressed.	4.80 (0.51)	4.52 (0.57)	−0.28	7.77
This restaurant has a decor in keeping with its image and price range.	4.50 (0.67)	4.31 (0.68)	−0.19	4.23
This restaurant has a menu that is easily readable.	4.63 (0.60)	4.57 (0.60)	−0.06	1.80
This restaurant has a visually attractive menu that reflects the restaurant's image.	4.39 (0.74)	4.16 (0.76)	−0.23	4.43
This restaurant has a dining area that is comfortable and easy to move around in.	4.70 (0.50)	4.53 (0.65)	−0.17	3.96
This restaurant has rest rooms that are thoroughly clean.	4.83 (0.43)	4.44 (0.70)	−0.39	8.80
This restaurant has dining areas that are thoroughly clean.	4.88 (0.31)	4.59 (0.51)	−0.29	2.63
This restaurant has comfortable seats in the dining room.	4.56 (0.64)	4.33 (0.70)	−0.23	5.29
Reliability	**4.81 (0.30)**	**4.58 (0.44)**	**−0.23**	**9.57**
This restaurant serves you in the time promised.	4.79 (0.42)	4.44 (0.61)	−0.35	9.44
This restaurant quickly corrects anything that is wrong.	4.77 (0.46)	4.54 (0.61)	−0.23	6.27
This restaurant is dependable and consistent.	4.85 (0.35)	4.64 (0.52)	−0.21	6.30
This restaurant provides an accurate guest check.	4.83 (0.39)	4.65 (0.56)	−0.18	5.17
This restaurant serves your food exactly as you ordered it.	4.83 (0.40)	4.61 (0.62)	−0.22	6.12
Responsiveness	**4.66 (0.49)**	**4.48 (0.51)**	**−0.18**	**5.36**
This restaurant during busy times has employees shift to help each other to maintain speed and quality of service.	4.63 (0.69)	4.46 (0.70)	−0.17	3.47
This restaurant provides prompt and quick service.	4.81 (0.42)	4.69 (0.51)	−0.12	3.67
This restaurant gives extra effort to handle your special requests.	4.53 (0.72)	4.29 (0.68)	−0.24	5.63
Assurance	**4.70 (0.43)**	**4.51 (0.47)**	**−0.19**	**6.96**
This restaurant has employees who can answer your questions completely.	4.69 (0.55)	4.56 (0.58)	−0.13	3.86
This restaurant makes you feel comfortable and confident in your dealings with them.	4.75 (0.55)	4.67 (0.53)	−0.08	2.03
This restaurant has personnel who are both able and willing to give you information about menu items, their ingredients, and methods of preparation.	4.66 (0.60)	4.36 (0.74)	−0.30	6.99
This restaurant makes you feel personally safe.	4.75 (0.47)	4.64 (0.56)	−0.11	3.47
This restaurant has personnel who seem well-trained, competent, and experienced.	4.68 (0.57)	4.48 (0.61)	−0.20	4.93
This restaurant seems to give employees support so that they can do their jobs well.	4.67 (0.54)	4.36 (0.63)	−0.31	8.53

Attributes	Expectations means (SD)	Perceptions means (SD)	(PM-EM)	t-value
Empathy	**4.66 (0.47)**	**4.41 (0.56)**	**−0.25**	**8.42**
This restaurant has employees who are sensitive to your individual needs and wants rather than always relying on policies and procedures.	4.64 (0.55)	4.31 (0.70)	−0.33	8.11
This restaurant makes you feel special.	4.66 (0.57)	4.42 (0.69)	−0.24	6.06
This restaurant anticipates your individual needs and wants.	4.50 (0.80)	4.28 (0.80)	−0.22	4.78
This restaurant has employees who are sympathetic and reassuring if something is wrong.	4.75 (0.45)	4.50 (0.61)	−0.25	7.19
This restaurant seems to have the customers' best interests at heart.	4.74 (0.50)	4.53 (0.67)	−0.21	5.71
Total	**4.69 (0.41)**	**4.46 (0.47)**	**−0.22**	

Table 2. Differences in expectation and perception about the quality of the services of the participants received from the restaurant.

variance of the five factors is the explanatory level of 60.238. This research was not based on an influence or relationship between variables. However, in a study, the dimensions that emerged with factor analysis can be used to analyze whether these dimensions differ according to the demographic findings of the research, or to analyze the relationship of research variables to other variables that can be added to the research.

11. Conclusion (report) and contributions of qualitative method to marketing research

In this research, the specificities of the qualitative method and the quantitative method in marketing research have been tried to be revealed with an application for Oba restaurant business. In this section, the qualitative method and the specific nature of the quantitative method are dealt with through an application beyond a theoretical-based debate. The practice was carried out in a restaurant operating in the center of Bartin in Turkey, addressing middle and upper income groups. In this application, it is aimed to increase the quality of services provided in Oba restaurant business. In this context, it has been tried to explain the work to be done in terms of qualitative method and quantitative method at every step of the research process, starting from the conceptual framework of a marketing research, and the points to be considered without much detail. Here, first and foremost, the results of marketing research will include qualitative and quantitative results. The contribution of the qualitative method to the marketing research was then evaluated.

Qualitative findings of the marketing research conducted indicate that customers generally match the level of service quality in restaurants with food quality, cleanliness and physical appearance, and ambiance. In addition, it has been found that in restaurants, the public employees care about the quality of food, the cleanliness of the children's families, and the meeting and group coordinators attach importance to the physical appearance and ambiance in the restaurants. Foods appealing to the tastes and hygiene factors were found to be at the forefront of the expectation of customers in a restaurant with a high quality of service. In their assessments of Oba restaurant business, they described the restaurant as good quality in terms of physical features, cleanliness, and food quality. However, some customers have stated that the restaurant does not meet expectations of food quality and prices. It has been determined by customers that the quality of the service can be increased at the restaurant by arranging the parking area of the restaurant, increasing the variety of stew foods at the restaurant, making the children's play area more secure, reducing prices, and changing the color of the restaurant.

Findings from the research's quantitative data show that customers have the highest perception and expectation of Oba restaurant operation. The dimension with lowest customer's expectations and perceptions is the physical characteristics. The statement that the difference between the expectations and perceptions of the customers in terms of physical characteristics is highest is related to the restaurant's parking space and physical appearance. In the reliability dimension, the highest expression is related with the speed of service. These findings obtained using the quantitative method are supported by the qualitative findings of the research. These two variables, which appear in restaurant manager's reliability and physical characteristics dimensions, should be taken into account to improve service quality. The highest difference between the expectations and perceptions of the customers in terms of readiness dimension is expressed in the statement that employees should make extra efforts to meet the special demands of the customers. On the level of trust, the biggest difference is that the restaurant is on its way to encourage employees to do their jobs better. Finally, the highest level of empathy in customer expectations and perceptions is related to the ability of employees to limit themselves to business policies and procedures without responding to customer requests. Restaurant managers should pay attention to the work involved in these statements to improve the quality of service.

Both the quantitative and qualitative findings in the Oba restaurant marketing research show that there is a certain level of quality of service offered at the restaurant. Findings for Oba restaurant targeting the middle and upper income group indicate that the operator has achieved this goal in a certain extent with the quality of service provided by the operator. As a matter of fact, it has been determined that 50% of the 308 respondents surveyed had higher university level education and approximately 50% had family income of 4501 TL and above. In addition, 72% of the participants have a habit of eating out at least once a week, which represents an important potential market for restaurant management. At this point, restaurant managers are advised to work toward increasing customer loyalty.

When the marketing research was evaluated in terms of the comparison of the qualitative and quantitative methods used, some conclusions have emerged. First of all, because of the deductive nature of the quantitative method, the dimensions of the restaurant's service quality were preselected and tested during the implementation process. On the other hand, because of the qualitative method of induction, the dimensions of the service quality of the restaurant have arisen since the data collection period and have been shaped according to the findings obtained. Therefore, it can be said that the qualitative method provides flexibility to the researcher in marketing researches in the data collection and analysis process. As a result of the research, it has been determined that the quantitative findings about the work to be done in order to increase the service quality in the restaurant operation is numerically higher but it is more limited in terms of guidance to the business managers. Findings obtained by the qualitative method are found to be more specific in terms of content and more functional at the point of guidance to the administrators.

Both qualitative and quantitative data on marketing research were obtained directly from the participants after eating in the natural environment in which the participants in the restaurant operation purchased the service. However, the role of the investigator has varied considerably in the process of obtaining the data. In the process of obtaining quantitative data, no intervention has been made in order not to direct the participants. On the other hand, in the process of obtaining qualitative data, in order to get more detailed information from the participants, the direction of the interview was directed and tried to create a comfortable environment to get the speaker's ideas. In the interviews, it was observed that the customers took responsibility for responding to the questions directed to them. Most of the surveyed customers were found to have filled the research questionnaire with reluctant attitudes. Thus, it can be said that the qualitative method has an effect on the quality of the obtained data. In other words, in the data obtained by quantitative method, the participants contributed to the research with the numerical values they gave, whereas in the data obtained by the qualitative method, the participants regarded themselves as responsible persons for restaurant operation and contributed by making unique proposals for research.

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INTECH

Chapter 2

Ethnography of Naming as a Religious Identity: Case of Antakya

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Additional information is available at the end of the chapter

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Abstract

Antakya is the central district of Hatay Province located in the eastern Mediterranean Region. Once populated by a variety of different ethno-religious communities, today it is still a place where Jewish, Christian, Sunni Muslim, and Arab Alevi (Nusayri) communities live together. This study is aimed at gaining insight into the naming preferences and naming rituals among different religious communities with a comparative perspective. The key question this study seeks to answer is how the religious belief to which people belong affects the names they are given and how the religious community draws a line between "self" and "other" based on the name. Names given to children or avoided as a taboo in different communities give the hints of a faith-based cultural memory a community established with its past. In this study, which is built on ethnography, field study method was utilized, and interviews were conducted with people from different communities. These interviews provided detailed insights into the variables people consider in naming their children, whether or not the religious identity to which they belong is influential in choosing a name, the naming experiences and rituals.

Keywords: name and naming, religious identity, Antakya, symbol, ritual

1. Introduction

Every child is regarded as a unique individual with their own name, and also these names generally reveal a child's place within the society, sex, class, ethic origin, religious community and relations [1]. According to Yonge (1863), "we shall find the history, the religion, and the character of a nation stamped upon the individuals in the names they bear" [2]. What Yonga suggests here is the very point this study intends to make that names not only refer to people but also to the religion. When we look at our cultural and natural environment, there is nothing—living or non-living, concrete or abstract—without a name. In daily life, we mostly take these already given-names granted and continue using without focusing on where these names come from. Each person has their own proper name, and these names serve like an identity card both in private and public life. According to Goethe Dichtung and Wahrheit, "The name of a person is not like a jacket which just hangs down the shoulders and tug at the sides to fit, but on the contrary, like a perfect-fitting dress which fits in like a skin and cannot be taken or pulled off without a damage" [3]. Although proper names are personal names, social scientists regard the naming concept as "symbolized identity" [2, p. 3]. Anthropological personal naming (or anthroponomy), ethnonym and toponymy studies had not drawn attention before 1960s, yet a limited number of early anthropologists addressed the subject [4]. The study of personal names is referred to as anthroponomy and anthroponomy is related to genealogy, sociology and anthropology [5]. The subject of names has attracted ethnologists, philologists and ordinary people in accordance with different theories as well as these disciplines [6]. A personal name is symbolized version of identity and attachment by words. As names have been evolved out of collective memory and cultural memory, they embody the changes occurred in the social structure and culture. Hence, names and naming conventions vary from culture to culture. In brief, the naming preferences of people and societies is affected by such variables as popular culture, media, family, ethnic identity, religion, ideology, and politics. Generally, besides the fact that naming has distinctive function from other groups, the use of selected names is effective in reflecting ethno-religious identity [7]. The changes of a nation's beliefs and values immediately reflect on the names [8, p. 2347]. In other words, the changed version of daily life for different reasons materializes in names. Cross-cultural ethnographic studies show that names are abstract symbols drawing cross-cultural borders. In this respect, the key factors which make names an identity and differentiation means and turn them into symbolic elements are religious beliefs and perceptions as well as ideological assumptions [9]. According to Geertz, religion is a system of symbols [10]. In order to convey the meanings relevant to the cultural processes and relations, symbols represent a "being" with which they are culturally associated in a way they can use within a context variety [11]. Tayfun Atay, who defines religion as cognitive attitude and behavior patterns toward supernatural beings and powers, suggests that cognitive attitude refers to belief (faith) and behavior pattern refers to ritual (worship-religious ceremony) [12]. Hence, ritual is one of the key elements through which sacred symbols and religious conventions are conveyed and maintained. Ritual-symbol relation and religion-based traditions caused by this dualist structure reveal the intercommunal differences, ethnic groups, religious communities, and class structure. The fact that naming ritual is conducted in accordance with religious beliefs and conventions brings along certain expectations. For instance, the names are "expected to bear special meanings including future attributes and wishes for the name holder; and the name holders to identify with the historical, cultural, and religious meanings attributed to the names" [9, p. 8]. The category of religious names greatly varying in the Muslim Turkish society includes Allah's attributes, Prophet and Prophet's relatives, names of Prophet's companions, quotations and words from the Qur'an, names of entombed saints and religious scholar who lived and fell martyr for their faith, and times and places which have religious meaning and importance [9, p. 14]. Likewise, in Judaism, the names are quoted from the Holy Scripture, religious figures, and prophets; in Christianity, the names of saints; and among Nusayris, the names of religious figures and prophets are maintained in the course of nonsacred daily life. As is stated, in Christianity, "The given names are associated with the belief of hereafter in our religion." In Judaism, "Name of a person is in fact a representative of the society and religion they belong." or "We will be called by our names in the hereafter world, and unless our name is an appropriate Muslim name, no one would call us," it is focused on the child naming rituals and names among Christians, Jews, Sunnis, and Arab Alevis in Antakya. This study suggests that in different religious beliefs, religious identity construction first starts with naming based on the rules of the religious-cultural community to which they belong. The main question to be addressed in this study is the relation between naming rituals and identity construction in different religious and sectarian communities.

2. Scope and methodology

Located by the Syrian border in the eastern Mediterranean region, "Hatay Province, Antakya District in particular, is one of the city centers where different ethnic communities live together" [13]. With a long history, this city has had a strategic importance with the Amik Plain through which trade routes have passed and which have served as a border. Reşat Kasaba depicts Antakya—where a variety of ethno-religious communities live together along with a plenty of subcultures—as follows: "These multi-identity and multi-religious characteristics can be observed in many cities. However, unlike the other cities, Antakya preserves its multi-identity characteristics despite wars and occupations" [14].

Şalom, a weekly political and cultural newspaper, published in Turkey and targeting the Jewish community in Antakya notes in its issue of June 22 1994 that: The history of the Jews dates back to 2000 years ago and the origin of this community is assumed to be the Jewish people emigrating from Syria and the Rhodes Island. Aside of the Jews, the Christians—Catholic, Orthodox, and Protestant—also preserve their identity. The Orthodox in particular is the largest group in number. What makes Antakya so important for the Christians is that St. Pierre Church, the first cave church, was declared as a pilgrimage site by Vatican in 1963 and that "Antakya" is the place where the Christianity was adopted by other groups than the Jews for the first time and the name of "Christian" was first uttered here [15]. Another community addressed in this study is the Arab Alevis. Alternatively known as Alevis, Arab Alevis, and Nusayris, this community is referred to as the Arab Alevis (Nusayris) in this study. Despite regarding themselves as Muslim, the Arab Alevis practice different customs from the Sunni Muslims as the Arab Alevism embodies a number of syncretic religious patterns due to the conditions it first emerged and currently existing customs. As for the period when the Alevism first emerged, it is noted that "In those days, the Shia movements were disseminated and became popular among public by the efforts of intellectually elite groups who were interested in philosophy and hence quite familiar with the pre-Islamic religions and particularly the ancient Greek philosophy which had a great influence on the Pre-Islamic religions and provided intellectual ground for the sectarianism in these religions" [16]. Aside of the Arab Alevis, Sunni Muslims is the largest group in population in this region. This study focuses on the Sunni-Hanafi community. The introduction of Islam in Antakya dates back to seventh century AD. Today, there are two large groups as Arab Sunni and Turkish Sunni in Antakya. The Jews, Orthodox Christians, Arab Alevis, and Arab Sunnis speak Arabic as their mother tongue. In daily life, both Arabic and Turkish languages are spoken, and as in many other cultures, there are certain similarities and distinctions in naming. As a part of this qualitative study, a number of interviews were conducted with the Jewish, Christian (Orthodox), Sunni, and Arab Alevi (Nusayri) people. In addition to in-depth interviews, semi-structured interview forms were used to keep a record of interviewees' statements with their permission. In interpreting the findings of the interviews, the interviewees were kept anonymous, while the data on their ethno-religious identity, sex, and age were utilized where necessary. In order to collect the relevant findings to the subject of this study, the following questions were posed to the interviewees: Do you regard the names you give your children at birth as a cultural symbol that represents your first ethnic-religious origin throughout your life? Do you think the names you give are related with your belief of hereafter? What are the names you choose for your children? Do you think your past experiences/memories/relationships are important in choosing a name? Are there any names you would avoid in naming your children? If any, what are they? Why do you avoid these names? Is there any family in your community who have chosen an avoided or undesirable name anyway? If any, could you tell us about their experiences? Is there any naming rituals? If any, could you elaborate these rituals? As in almost everywhere in the world, it is clear that in Antakya, religion and belief have an influence in choosing nicknames as well as names [17]. Also as a part of this study, "In Hatay, as the umbilical cord of a child is cut by a midwife, the child may be given such religious names as Muhammed, Mustafa, Emine, Ayşe, Fatma etc. as a middle name (*göbek adı*), and also as a first name, a child may be named after certain religious figures or some sections or verses quoted from the Qur'an" [18]. For instance, in a study conducted on the students of Mustafa Kemal University (Hatay) coming from all around Turkey, it is emphasized that the names chosen for children should comply with the religious beliefs or quoted from the Qur'an [8]. After the brief introduction of field and method of the study, the following chapters will focus on the religious origins of naming, differences among the communities, symbolism of the names, and the names that became a taboo due to historical events constructed and transmitted by cultural memory.

3. Names and name giving in Antakya

The names typically used and preferred by a community have a deep connection between the events happened in the past that affect the community life and people. This connection which has been transferred via cultural memory is symbolized with the names to tell the other communities passively about their religious beliefs, preferences and reactions. Hence, the names carry a special meaning for each nation as they carry the nation's history and culture remind the members of that nation's memories from the past [19]. Whether it is a prohibition or the result of a sacred verse or prays, names and naming are a great preference for most of the societies. Let's touch them briefly and alternately.

3.1. Names as a field of Taboo

There are especially some names which are not used among Arab Alevis (Nusayris). Although these names vary, Arab Alevis do not use the names of khalifas Osman, Bekir, and Ömer, and they do not use the names of Yavuz, Muaviye, Yezid, Harun, and Ayşe because they indicate that Halid bin Velid, Muaviye, Yezid, Harun bin Reşid, and Sultan Selim the Resolute persecuted Alevis in the past [20]. Since the name Ayşe is not preferred, the name Ayşegül is not preferred either. At this point, we should take a look at the history of the reason why some names are especially not used among Arab Alevis and what is left from the history in today's cultural memory. After the third khalifa Osman was murdered (644–656), a sectarian division, which still continues today, has occurred among Muslims. While some people wanted Ali to become the khalifa, some others blamed Ali for the murder of Osman. According to Sunni Islam, Ali is the fourth khalifa; and according to Shia Islam, he is the first of imams. He is also seen as the successor of the Prophet Muhammad. Caliphate of Ali (656-661 AD) proceeded in the struggle between his supporters and the ones who did not accept him as the khalifa. Ali faced with Âişe, around whom people that objected him gathered, in the Battle of the Camel and Ali won the war. The fact that Ali was stabbed and killed by his enemies, while he was praying in the mosque irreversibly marked the division between Sunnis and Shias. Then, Muaviye had the Caliphate, and Muaviye has become one of the reaction centers of Shia Islam. After Ali, the struggle for Caliphate continued. The subsequent events proceeded as follows: After Muaviye Imam Hasan was killed by poison, his brother Imam Huseyin went to Mecca. After the death of Muaviye, Damascus people obeyed Yezid; and, the ones in Kufe obeyed Imam Huseyin. Imam Huseyin left for Kufe and the new governor of Kufe, Ubeydullah b. Ziyad sent an army to Karbala. Ziyad prevented Imam Huseyin from taking water from Euphrates River. On the 10th of Muharram ul Haram, the war started and 72 of Imam Huseyin's supporters, who were dehydrated in the desert, died in the war. Imam Huseyin was also beheaded [21]. Thirteen days after the Karbala event, Yezid held Imam Huseyin's supporters captive in a mosque that had no roof, and he left them there without food or water [21, p. 75]. The Ottoman Emperor Sultan Selim the Resolute (1470–1520) settled Turks to provide the security of Egypt-Anatolia road, which was one of the places where Alevis densely lived; as a result of this, the oppression they experienced made Nusayris an introvert-closed community [22]. Alevis supported Shah Ismail in his struggle with Sultan Selim the Resolute and they have expressed that Sultan Selim the Resolute killed many Alevis without a reason [23]. Apart from these historical events, our information source with whom we made an interview in the field states the reasons and results of the resistance they show against the names as follows:

"Karbala and caliphate are extremely important in naming. The name of Yavuz is not used because of the slaughter he made. The name Ayşegül is not preferred either. Although there is not a strict resistance against the names Yavuz and Fatih, they are not used. Though it is rare, sometimes people go beyond the ordinary behaviour and these names can be seen. However, the names of Ayşe, Ömer, Bekir, and Osman are never used. If somebody is detached from the Alevi culture as belief, they can use the name Ayşegül and other names but these people are not considered from the religion and their children cannot get the religious education called unclehood." Again, people whom we interviewed said that although there are some exceptions, as one of the most common names, Ali should be used as the first name because Ali is the leader. They define the limits of the taboo

by expressing that as the name Muhammad is used as Mehmed, the Holy person's name Ali cannot be used as "Ali Can" because the second name, Can, seems to trivialize the name of Ali. In the community of Arab Alevis (Nusayris), the field of taboo against names is symbolized for ages with the Purgation Prayer performed in religious rituals. Purgation Prayer is as follows: "You protect us from the fire and the subjects of fire. God damns Ebû Bekir, Osman, Ömer, Muaviye, Yezid, Halid bin Velid, Amr-bin As, Harun Reşid, Sultan Selim the Resolute, and all others who claim power against God… Separate us from them and from their grandchildren like how the flesh is separated from the bone" [24]. Instead of the names mentioned in this prayer, the phrase 9 intriguer, meaning "9 people who make trouble," is also used. In some Nusayri (Arab Alevi) communities, this prayer is read by adding the statement "how the dough is separated from the hair" after the statement "how the flesh is separated from the bone" [16, p. 67]. Community members frequently mentioned of avoided names that are marked with Arab Alevis' "Arınma Duası" [Purification Pray]. Both male and female community members we interviewed have a common understanding about these names. They frequently state that names, such as: Yezid, Ömer, Osman, Yavuz, Bekir, Muaviye, Ayşe, shall be avoided; if not, they will get reactions from their community, and therefore, they are very keen on this distinction. A member of Jewish community member indicated the distinction between Sunnis and Christians accordingly: "*In our community never a child is given distinctive names such as Hasan, Hüseyin or Christian names—it goes against the grain—which is why children are hardly ever given undesirable names in our community; and if so, they get serious reactions from the community*." Again, a member of Christian community member made the following statement regarding names to be avoided or preferred: "*Non-muslim Turkish names can be given to children. For instance, names such as Gökhan, Hakan, Engin that have no Muslim associations can be preferred in the national identity card and can also be used in everyday life. However, there is no way to use names such as Muhammed, Ömer, Mustafa that have apparent Muslim associations; otherwise you may get reactions. On the other hand, it is possible to use names—Ali and Murat. Also, modern Turkish names that are not mentioned in the Qur'an can be used. There is a person named Mehmet among us; however the baptize name is the true name. The name Süleyman appears in the Old Testament, still we name children as Solomun.*"

Regarding the undesirable or avoided names for Sunnis, resources state that it is forbidden by religion to use names to mean serving anyone other than Allah; thus, the Prophet advises to change the names that associate with idolatry and that contradict with Islamic customs [25]. Although it is not a complete taboo, for instance "As a matter of their respect to the Prophet Muhammed, Muslim Turks assumed to take his name directly to be impudent, instead they endorsed to name children after him as Mehmed" [25, p. 333]. A female Sunni interviewee we met in the field work stated that, "Our Prophet's name is Muhammed. Some name their children after him; however, some others avoid that, for people may speak ill of him or swear at him," stressing the fact that one should be very cautious with using the Muslim Prophet Muhammed's name. The common perception among the Sunnis who follow traditions is: "*If you name your child after another religion, she/he will not be judged in the last judgment day, and will have nowhere to go. Far too modern names are not favorable by religion. Names should not be fake/invented. According to our religion we shall give meaningful names to children. We are Muslims and our religion cammands us to give beautiful meaningful names to children*." Based on such statements,

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these people have taboos regarding using names that not favorable by religion. Moreover, some community members stated that it is also unfavorable to use names of Allah directly—such as Kadir; rather it should be used as Abdulkadir. For instance, a female member of Sunni community is against—in her words—using modern names, questioning convenience of using these names: "Recently, people started to give non-religious names to their children. For example, they name their children Alev [*flame*]. Alev means fire—why would you give an unfavorable name to your children!" Another women from the same community stated that Christians dwelling in Antakya use the name Sara whereas her community uses Sare; thus, it is important to prefer using names with Muslim associations in order not to resemble the Christian community. Sara is the name of prophet İbrahim's wife; however, in the Koran, it is mentioned as Sâre.

3.2. Names and their sacred sources as a motive to prefer

Surveys show that those who maintain their identities prefer the names found in sacred books of all religions, names of important persons such as saints, prophets, religious leaders or companions of prophets and that religious identity is built in this way. One important point about naming is the belief in the hereafter. Jewish people believe that on the Day of Judgment, they will be called by their Hebrew names. Similarly, Sunni Muslims emphasize the importance of choice of names because of Prophet Muhammad's statement: "You will be called by your names and your fathers', so make your names beautiful" [26], which they think that they should use religious names for their children so that their children can be called by their names on the judgment day because after death people will be called with the names given to them. Apart from given names, there are middle names. Nusayris (Arab Alevis) living in Hatay give much importance to giving middle name to babies. They believe that people will be called by their middle names on the day of judgment after death and give babies their first names 3 or 7 days after the birth [27]. As Rinna Samuel (1972) has written, "For Jews, naming has always been e way of narrating history, demonstrating continuity, preserving the memory of those who have died, and celebrating significant event" [28]. Indeed, when names given to Jewish children are examined, it is seen that names are important in connecting with their history and maintaining their identity. Jewish people firstly give boys Hebrew names at circumcision. They are called by their Hebrew names in all religious ceremonies even if their names are different on birth certificate. Babies who die before their 8th day are still named [29]. A Jewish man interviewed explains their naming tradition, which has a function of establishing a relation between the old testament and daily life as well as presenting male domination, as following: *"Mose: Generally such names as Musa, Yakup, Davut, and Davit, which are found in Torah, are used. Names of Prophets are used. For example my daughter's name is Gila. We named her after my mother's name Gerez, which means soft-hearted, but modernized it."* Christians name their babies after grandmothers or grandfathers whose names are generally found in the Bible. They may also give their babies the names found in Torah. However, according to a Christian, congregant modern versions of names are used instead of their Arabic origins, as in the examples of girl's names Kettur;Katerina and Meryem;Maria. In the research area, there are many holy persons like St. Georgios, St. İlyas, St. Barbara, St. Antonios, St. Nikolaos, St. Dimitrios, St. Spiridon, St. Anna, St. Petrus and St. Pavlus and religious festivals for them [30]. Mar Curcos (St. Georges) festival is a name festival at the same time, and those whose names are George are visited, given presents and congratulated with on May 6 [31]. Saint Barbara's Festival is celebrated on December 4 and people whose names are Barbara are given presents and congratulated with as it is also a festival for those bearing name of Barbara [31, p. 333]. Name festivals, arising out of common Christian tradition of naming babies after saints, strengthen the communication between people bearing the same names and increases communication in a congregation. That is because name festival days are shared with enthusiasm, joy, and excitement. If there is an icon of the saints, it is prayed and respected on the name festival day. The data we have gathered from a congregant man on this matter are as follows: "*Using saints' names as first names, naming girls after Mother Mary and naming babies after saints when their birthdays are on the same day of a Saint's Festival are common patterns of behavior in Christianity. Babies are given names of martyrs' or saints' at baptism and called by this name. If the day is a memorial day for a saint, his/her name is preferred. In addition, name day or name feasts tradition can account for acceptance of persons who participated in the community and its importance. It is an important event in congregations that people bearing the same names get together in the church and celebrate it with a religious ceremony*." Sometimes babies' names at baptism are given by their godmothers and godfathers, which makes naming a sponsor-based relationship [32].

A Sunni woman, one of our sources, states she heard it from her father that such names as *"Mehmet, Mustafa, Ahmet"* are Sunnah names. Even if Sunnis prefer to pronounce Muhammed as Mehmed, they also use the names of Ahmed, Mahmud, Hamid and Mustafa attributed to him as well as Muhammed [25, p. 333]. Congregants always stress the importance of naming children after companions of Prophet Muhammad, saints, religious people and leaders or using names found in the Qur'an. They think that it is being estranged from the religion that today Islamic names are not used as much as it used to be. A congregant says: *"In the past elders' names were all Islamic ones. As children used to be named after elder people, they had beautiful names in religious terms. If you name your child after Prophet Mohammed, it brings more abundance to into your house. This is what we believe. Ahmet, Muhammed, Mustafa, Mahmut, Ayşe, Fatma, and Havva are all names of holy persons and are commonly used among Muslims."* Arab Alevis and Sunnis have both a lot in common considering their sources for naming. Ahl al-Bayt is the most important one. Literally, referring to "People of the House of Prophet Muhammad," the phrase "Ahl al-Bayt" has two different frameworks as narrow and broad. In broad terms, "Ahl al-Bayt" includes all people in the house of Prophet Muhammad and also people who are close to them. According to Islamic tradition, in broad terms "Ahl al-Bayt" refers to wives of Prophet Muhammad and the family of Ali and Fatimah. In narrow terms, as a common view of Muslim scholars, "Ahl al-Bayt" consists of Ali, Fatimah, Hasan and Husayn [33]. For Nusayris (Arab Alevis), "Ahl al-Bayt" means Muhammed, Ali, Fatimah, Hasan, Husayn and Muhsin [24, p. 59]. Hasan and Husayn, who are included in Ahl al-Bayt, have a different meaning for Arab Alevis as their source for names because one was killed by being poisoned and the other was beheaded. Love for Ali and what he symbolizes are much more different and important. The most commonly used names are Ali, Hasan and Husayn [20, p. 134]. In particular, Arab Alevis or Nusayris living in Hatay have deep love and respect for Ali [34]. Another important source for naming among Arab Alevis is the Twelve Imams. According to Arabic Alevis, "the Twelve Imams are extremely important holy persons" [24, p. 59]. The Twelve Imams consist of Imam

Ali b. Ebi Talib, Imam Hasan el-Mücteba, Imam Hüseyin eş-Şehid, ImamAli Zeynulabidin, Imam Muhammed el Bâkır, Imam Cafer es-Sadık, Imam Musa el—Kazım, Imam Ali er—Rıdâ, Imam Muhammed el-Cevad, Imam Ali el-Hadi, Imam Hasanel-Askeri, and Imam Muhammed el-Mehdi [35]. Based on the information we get from the area "Names of *Musa, İsa, Meryem are used, Muhammed is not preferred rather Mehmet is used. Names of prophets are used. Ali is the most commonly used name. Mehmet Ali is quite common. People mostly prefer names like Ali, Muhammed, Zeyniddin, Fahriddin, and Nureddin. Among the most preferred names are Zehra, Zeynep, Hasan, and Husayn. There are people who especially name their children after Sikh. Considering the time in which the child grows up, they say names like İbrahim, Süleyman, Ali, Ahmet, and Mehmet are more appropriate. Names of the Twelve Imams are preferred. It is important to maintain the names of Sikhs. Their sons or grandsons are named after Sikhs. For example the name of Selman is preferred because it means new-born, the one who came to the world."*

3.3. Name-giving ritual

Aside of the preferred and avoided names, another important matter among Jewish, Christian, Sunni, and Arab Alevi communities is naming ritual. The rituals rules referred to in different names in different communities may also be seen as initiation rules to a relevant religion because it is the first time a child's identity boundaries are drawn by the selection of an appropriate name to their religious identity. Below is a brief explanation of these rituals.

3.3.1. Brit Milah and 'Zaved HaBat or Vijola in Judaism

Among Jewish people, naming a child requires a series of important rituals. Despite causing some distinction among different Jewish communities today, naming ritual—requiring to follow different procedures for girls and boys—remains to be important. One of the interviewees, a member of Antakya Jewish Community, describes the ritual as follows: *"According to our traditions, boys are named during a circumcision ceremony called Brit Milah. Our ancestor who had been called Avram until circumcision became the first person to prove loyal to God after he fulfilled the God's circumcision order. And he was told that 'your name is no longer Avram but Avraham.' This is how the rabbis learned that a male new-born is to be named during Brit Milah as according to the Tora, when you perform a Brit Milah for a child, you complete the creation. God creates; parents and God, three partners shapes the body but the creation is completed in the day eight by means of circumcision. Brit Milah means 'agreement'. The agreement, 'Brit', made with the God symbolizes that the agreement between Avram and the God will be maintained for generations. When there is a baby boy to be circumcised in the eight day after birth, a rabbi is invited from İstanbul as Antakya community lacks one. This rabbi is both a religious functionary and circumciser. It is held as a ceremony in a Synagogue. After the prayers, what the name will be determined (grandfather is 'kirve' –the person who supports the child during circumcision- and bears the ritual expenses). When the ritual is completed, people say 'Besimantov' (meaning Good Luck). Refreshers are served. In this circumcision ceremony, there is no need for a special invitation as it is a grand religious service and whoever informed should attend. The Day Eight tradition is based on the 613 mitzvot (commandments) related with the Ten Commandments which were declared by God gave to Prophet Moses. One of these commandments requires circumcision on the eight day. During Brit*

Milah, Rabbis read some prayers they combine. In reading the prayers to wish a child good luck for the rest of their life, their name is pronounced. We make an agreement and child takes a name at that moment. We say "May he follow God's path, and his parents live long," and then "In the name of God, we call him ……" Of course, this speech is made in Hebrew in a proper intonation. Circumcision takes place at the same day with the naming ceremony because for boys circumcision is a symbol of initiation to the religion. Each person initiates to the religion is marked. For girls, naming ritual is a bit different. This ritual is mostly known as Zeved HaBat and also called "vijola" in Spanish. Based on the field data gathered, "After a baby girl is born she is named in 8 to 40 days. The baby is dressed up nicely and a rabbi says prayers and calls her name, holding the baby on his lap. In naming baby girls, naming ceremony held by Sholomo Hamelech (Solomon) for his daughters is taken as a reference. Sholomo Hamelech wrote a book entitled 'the Melody of the Melodies' (מירישהריש, Şir ha-Şirim). Originally it is written by a man for his lover, but according to Jewish mysticism, it is in fact a narrative, a melody describes how a Jewish should love God. There is a part in this book that depicts and praises a girl. This part is read to the baby girl during vijola ceremony, and her name is given as these complimentary words are read. Baby girl wears wedding dresses and anadems; and people are served meal."

3.3.2. Baptism among Christians

Baptism is not only a cleansing ritual before admission to the religion, but also a name-giving ritual. Name-giving is attached great importance, and baptism is the basis of name-giving ritual. Generally, in Orthodox churches, children are given names on the 8th day and baptized in 8–40 days after birth [35]. As for the Christian community in Antakya, we can see various practices in terms of the day and time, the ceremony is held. Based on the data gathered on the field, Orthodox people give a name to their children even on the day they are born. According to the Jewish traditions, Jesus was given a name and circumcised on the 8th day after his birth. According to Luka (Bible) 2: 21, "On the eighth day, when it came time to circumcise the child, he was called Jesus. It is now that your angel gave it to Him before she fell into her mother's womb."

That's why, some Christians maintain only the name-giving tradition on the 8th day. Once in Antakya, "name-giving ceremony used to be held in forty days for baby boys, and in 60–80 days for baby girls" [30, p. 158]; however, this tradition has partly changed today because based on the data we gathered on the field, "a child can be given their name both on the day they are born and depending on the family's decision, baptism can be delayed from 2 months up to 1 year after the birth." As is stated by a man, a member of the Christian community: "*Baptism is held to give a child a name, a kind of registration. This ceremony symbolizes that a human being is purified, devoted to Jesus, and becomes a Christian. A child is born without a religion and become a Christian after baptism; hence, he/she has to take a biblical name. Church ceremony is followed by a festive occasion in the evening depending on the financial capacity of the family. In giving a name, relationships, memories, and culture play a role. Every Sunday is assigned as a Saint's Eve. Those who are born on Sunday are named after Mor Gabriel, and those who are born in during a feast called 'Mor Corcır' are named after George. If the baby girl is to be named on a female saint's day, she is named after her. And the relatives give crucifix necklace or such accessories as a gift."*

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3.3.3. Ezan and Kamet among Sunnis and Arab Alevis

Name-giving rituals practiced by Sunnis and Arab Alevis are similar. However, this similarity is observed among those who practice name-giving ritual in accordance with religious rules because among Arab Alevis sometimes the child's name is started to be used directly. In both communities, *Ezan* is read to the right ear and *Kamet* is read on the left ear, and the child's name is read to the right ear. Although the Islamic sources contain conflicting information on when to name a child, it is noted that Prophet Muhammad says for His son to whom Mariye gave birth that "I had a son tonight and I named him after Ibrahim, which is interpreted that name giving on the birth day is appropriate [25, p. 333]. As is told by a rumor associated by the Prophet, in giving a name to a child, *ezan* is read to the right ear and then *kamet* is read to the left one. It is known that the Prophet Muhammad, the Prophet of Islam, read *ezan* to the ear of His grandson, Hasan [25, p. 333]. As is stated by a Muslim woman, *"Ezan is read to the right ear of the child, followed by 'kamet'. Then the name is pronounced, as is practiced by our Prophet. This name-giving practice is a 'sunnah.' A name is given right after the birth"*, in name-giving practice, the Prophet's sunnah (Prophet Muhammed's teachings and practices) is maintained as a rule. In daily life practices, additional remarks we recorded among Sunni community regarding the name-giving practices are as follows: *"the name is read three times to the right ear and this should be done in 3-4 days after the birth. The name was given one month after the child was born. Ezan was read and the name repeated three times. My youngest son was given his name the next day he was born. The person to give the name performs an ablution. A man to practice the ritual holds the child, reads ezan and repeated three times that 'your name is…..' and then people say 'good luck, may he/she be worthy of his/her name, may his/her parent live long."* There are a few differences between *Ezan* and *Kamet* reading practices of the Arab Alevis who prefer religious ritual and the Sunnis. For instance, in reading *kamet* to the left ear, it is said *"Eşhedü enne Muhammeden Rasûlullah" (I accept that Muhammed is the prophet of Allah) and then "Eşhedü enne Aliyyen veliyyullâh"* (I testify that Ali is the beloved servant of Allah). Hence, the love for Ali who is the center of Alevism is whispered to the ear, which indicates a religious difference. In Arab Alevi community, there might be differences in name giving rituals. However, adopted traditions are such: "After the birth, sikh is informed in one week. There is no obligation for immolation at that moment but the time their financial situation allows they must definitely sacrifice an animal for God. There must be blood. From the meat of the sacrificed animal, hrisi, boiled bulgur/meat is cooked. If the mother of child would be expected to join the sacrifice ritual, there must be 40 days passed since the birth. Nowadays, after the name giving, they give dessert to the neighbors and relatives. The ones who take the dessert say "may he/she live with the name of Allah."

4. Conclusion

The names used by people from different religious communities are originated from the names mentioned in holy books and the names of prophets, wives of the prophets, saints and patronesses, chief rabbis, and mahatmas. These religious communities living in Antakya show resistance both against expressing their beliefs and against using some names; and through naming; they make a reference to the beyond of social memory and to the Other. In different religious communities, different religious authorities can be effective in the choice of names. Naming is more important especially among the members of religious groups and communities. In community relations, names and the action of naming complete the religious, ideological, and ethnic identity. Names are actually used as a kind of communication code in these communities in order to protect their differences and to strengthen the solidarity among members. Since there is a lineage-based tradition in Jewish communities, they especially prefer the names of mothers-fathers. Since the names of Jewish people's mothers-fathers are based on Torah, the source of naming is again based on the holy book and rituals. Jewish people, whose native language is Arabic, are deeply loyal to their naming rituals. Among Christian people, on the other hand, although the Bible, saints and patronesses, and holy people are considered as the sources of naming, non-Islamic names are also preferred. Baptism is highly important for naming. There are many common names among Sunnis and Arab Alevis (Nusayris). Names based on Ahl al-Bayt (أهلالبيت) are frequently used in both communities. Although the name, Ali, is used by both Sunnis and Arab Alevis, its frequency and the meaning it symbolizes are associated with Alevi identity. However, in addition to this, there are some names which are banned in the division of Sunni-Alevi and symbolized by Arab Alevis (Nusayris) through the Purgation Prayer. The names met by resistance and the preferred names create a border between two communities.

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Chapter 3

Research Methods in Library and Information Science

Aspasia Togia and Afrodite Malliari

Additional information is available at the end of the chapter

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Abstract

Library and information science (LIS) is a very broad discipline, which uses a wide range of constantly evolving research strategies and techniques. The aim of this chapter is to provide an updated view of research issues in library and information science. A stratified random sample of 440 articles published in five prominent journals was analyzed and classified to identify (i) research approach, (ii) research methodology, and (iii) method of data analysis. For each variable, a coding scheme was developed, and the articles were coded accordingly. A total of 78% of the articles reported empirical research. The rest 22% were classified as non-empirical research papers. The five most popular topics were "information retrieval," "information behaviour," "information literacy," "library services," and "organization and management." An overwhelming majority of the empirical research articles employed a quantitative approach. Although the survey emerged as the most frequently used research strategy, there is evidence that the number and variety of research methodologies have been increased. There is also evidence that qualitative approaches are gaining increasing importance and have a role to play in LIS, while mixed methods have not yet gained enough recognition in LIS research.

Keywords: library and information science, research methods, research strategies, data analysis techniques, research articles

1. Introduction

Library and information science (LIS), as its name indicates, is a merging of librarianship and information science that took place in the 1960s [1, 2]. LIS is a field of both professional practice and scientific inquiry. As a field of practice, it includes the profession of librarianship as well as a number of other information professions, all of which assume the interplay of the following:

- information content,
- the people who interact with the content, and
- the technology used to facilitate the creation, communication, storage, or transformation of the content [3].

The disciplinary foundation of LIS, which began in the 1920s, aimed at providing a theoretical foundation for the library profession. LIS has evolved in close relationship with other fields of research, especially computer science, communication studies, and cognitive sciences [4].

The connection of LIS with professional practice, on one hand, and other research fields on the other has influenced its research orientation and the development of methodological tools and theoretical perspectives [5]. Research problems are diverse, depending on the research direction, local trends, etc. Most of them relate to the professional practice although there are theoretical research statements as well. LIS research strives to address important information issues, such as these of "*information retrieval, information quality and authenticity, policy for access and preservation, the health and security applications of data mining*"(p. 3) [6]. The research is multidisciplinary in nature, and it has been heavily influenced by research designs developed in the social, behavioral, and management sciences and to a lesser extent by the theoretical inquiry adopted in the humanities [7]. Methods used in information retrieval research have been adapted from computer science. The emergence of evidence-based librarianship in the late 1990s brought a positivist approach to LIS research, since it incorporated many of the research designs and methods used in clinical medicine [7, 8]. In addition, LIS has developed its own methodological approaches, a prominent example of which is bibliometrics. Bibliometrics, which can be defined as "*the use of mathematical and statistical methods to study documents and patterns of publication*" (p. 38) [9], is a native research methodology, which has been extensively used outside the field, especially in science studies [10].

Library and information science research has been often criticized as being fragmentary, narrowly focused, and oriented to practical problems [11]. Many authors have noticed limited use of theory in published research and have advocated greater use of theory as a conceptual basis in LIS research [4, 11–14]. Feehan et al. [13] claimed that LIS literature has not evolved enough to support a rigid body of its own theoretical basis. Jarvelin and Vakkari [15] argued that LIS theories are usually vague and conceptually unclear, and that research in LIS has been dominated by a paradigm which "*has made little use of such traditional scientific approaches as foundations and conceptual analysis, or of scientific explanation and theory formulation*" (p. 415). This lack of theoretical contributions may be associated with the fact that LIS emanated from professional practice and is therefore closely linked to practical problems such as the processing and organization of library materials, documentation, and information retrieval [15, 16].

In this chapter, after briefly discussing the role of theory in LIS research, we provide an updated view of research issues in the field that will help scholars and students stay informed about topics related to research strategies and methods. To accomplish this, we describe and analyze patterns of LIS research activity as reflected in prominent library journals. The analysis of the articles highlights trends and recurring themes in LIS research regarding the use of multiple methods, the adoption of qualitative approaches, and the employment of advanced techniques for data analysis and interpretation [17].

2. The role of theory in LIS research

The presence of theory is an indication of research eminence and respectability [18], as well as a feature of discipline's maturity [19, 20]. Theory has been defined in many ways. "*Any of the following have been used as the meaning of theory: a law, a hypothesis, group of hypotheses, proposition, supposition, explanation, model, assumption, conjecture, construct, edifice, structure, opinion, speculation, belief, principle, rule, point of view, generalization, scheme, or idea*" (p. 309) [21]. A theory can be described as "*a set of interrelated concepts, definitions, and propositions that explains or predicts events or situations by specifying relations among variables*" [22]. According to Babbie [23], research is "*a systematic explanation for the observed facts and laws that related to a particular aspect of life*" (p. 49). It is "*a multiple-level component of the research process, comprising a range of generalizations that move beyond a descriptive level to a more explanatory level*" [24] (p. 319). The role of theory in social sciences is, among other things, to explain and predict behavior, be usable in practical applications, and guide research [25]. According to Smiraglia [26], theory does not exist in a vacuum but in a system that explains the domains of human actions, the phenomena found in these domains, and the ways in which they are affected. He maintains that theory is developed by systematically observing phenomena, either in the positivist empirical research paradigm or in the qualitative hermeneutic paradigm. Theory is used to formulate hypotheses in quantitative research and confirms observations in qualitative research.

Glazier and Grover [24] proposed a model for theory-building in LIS called "circuits of theory." The model includes taxonomy of theory, developed earlier by the authors [11], and the critical social and psychological factors that influence research. The purpose of the taxonomy was to demonstrate the relationships among the concepts of research, theory, paradigms, and phenomena. Phenomena are described as "*events experienced in the empirical world*" (p. 230) [11]. Researchers assign symbols (digital or iconic representations, usually words or pictures) to phenomena, and meaning to symbols, and then they conceptualize the relationships among phenomena and formulate hypotheses and research questions. "*In the taxonomy, empirical research begins with the formation of research questions to be answered about the concepts or hypotheses for testing the concepts within a narrow set of predetermined parameters*" (p. 323) [24]. Various levels of theories, with implications for research in library and information Science, are described. The first theory level, called *substantive theory*, is defined as "*a set of propositions which furnish an explanation for an applied area of inquiry*" (p. 233) [11]. In fact, it may not be viewed as a theory but rather be considered as a research hypothesis that has been tested or even a research finding [16]. The next level of theory, called *formal theory*, is defined as "*a set of propositions which furnish an explanation for a formal or conceptual area of inquiry, that is, a discipline*" (p. 234) [11]. Substantive and formal theories together are usually considered as "middle range" theory in the social sciences. Their difference lies in the ability to structure generalizations and the potential for explanation and prediction. The final level, *grand theory*, is "*a set of theories or generalizations that transcend the borders of disciplines to explain relationships among phenomena*" (p. 321) [24]. According to the authors, most research generates substantive level theory, or, alternatively, researchers borrow theory from the appropriate discipline, apply it to the problem under investigation, and reconstruct the theory at the substantive level. Next in the hierarchy of theoretical categories is the *paradigm*, which is described as "*a framework of basic assumptions with which* *perceptions are evaluated and relationships are delineated and applied to a discipline or profession*" (p. 234) [11]. Finally, the most significant theoretical category is the *world view*, which is defined as "*an individual's accepted knowledge, including values and assumptions, which provide a 'filter' for perception of all phenomena*" (p. 235) [11]. All the previous categories contribute to shaping the individual's worldview. In the revised model, which places more emphasis on the impact of social environment on the research process, research and theory building is surrounded by a system of three basic contextual modules: the self, society, and knowledge, both discovered and undiscovered. The interactions and dialectical relationships of these three modules affect the research process and create a dynamic environment that fosters theory creation and development. The authors argue that their model will help researchers build theories that enable generalizations beyond the conclusions drawn from empirical data [24].

In an effort to propose a framework for a unified theory of librarianship, McGrath [27] reviewed research articles in the areas of publishing, acquisitions, classification and knowledge organization, storage, preservation and collection management, library collections, and circulations. In his study, he included articles that employed explanatory and predictive statistical methods to explore relationships between variables within and between the above subfields of LIS. For each paper reviewed, he identified the dependent variable, significant independent variables, and the units of analysis. The review displayed explanatory studies "*in nearly every level, with the possible exception of classification, while studies in circulation and use of the library were clearly dominant. A recapitulation showed that a variable at one level may be a unit of analysis at another, a property of explanatory research crucial to the development of theory, which has been either ignored or unrecognized in LIS literature*" (p. 368) [27]. The author concluded that "explanatory and predictive relationships do exist and that they can be useful in constructing a comprehensive unified theory of librarianship" (p. 368) [27].

Recent LIS literature provides several analyses of theory development and use in the field. In a longitudinal analysis of information needs and uses of literature, Julien and Duggan [28] investigated, among other things, to what extent LIS literature was grounded in theory. Articles "*based on a coherent and explicit framework of assumptions, definitions, and propositions that, taken together, have some explanatory power*" (p. 294) were classified as theoretical articles. Results showed that only 18.3% of the research studies identified in the sample of articles examined were theoretically grounded.

Pettigrew and McKechnie [29] analyzed 1160 journal articles published between 1993 and 1998 to determine the level of theory use in information science research. In the absence of a singular definition of theory that would cover all the different uses of the term in the sample of articles, they operationalized "theory" according to authors' use of the term. They found that 34.1% of the articles incorporated theory, with the largest percentage of theories drawn from the social sciences. Information science itself was the second most important source of theories. The authors argued that this significant increase in theory use in comparison to earlier studies could be explained by the research-oriented journals they selected for examination, the sample time, and the broad way in which they defined "theory." With regard to this last point, that is, their approach of identifying theories only if the author(s) describe them as such in the article, Pettigrew and McKechnie [29] observed significant differences in how information science researchers perceive theory:

> *Although it is possible that conceptual differences regarding the nature of theory may be due to the different disciplinary backgrounds of researchers in IS, other themes emerged from our data that suggest a general confusion exists about theory even within subfields. Numerous examples came to light during our analysis in which an author would simultaneously refer to something as a theory and a method, or as a theory and a model, or as a theory and a reported finding. In other words, it seems as though authors, themselves, are sometimes unsure about what constitutes theory. Questions even arose regarding whether the author to whom a theory was credited would him or herself consider his or her work as theory (p. 68).*

Kim and Jeong [16] examined the state and characteristics of theoretical research in LIS journals between 1984 and 2003. They focused on the "theory incident," which is described as "an event in which the author contributes to the development or the use of theory in his/her paper." Their study adopted Glazier and Grover's [24] model of "circuits of theory." Substantive level theory was operationalized to a tested hypothesis or an observed relationship, while both formal and grand level theories were identified when they were named as "theory," "model," or "law" by authors other than those who had developed them. Results demonstrated that the application of theory was present in 41.4% of the articles examined, signifying a significant increase in the proportion of theoretical articles as compared to previous studies. Moreover, it was evident that both theory development and theory use had increased by the year. Information seeking and use, and information retrieval, were identified as the subfields with the most significant contribution to the development of the theoretical framework.

In a more in-depth analysis of theory use in Kumasi et al. [30] qualitatively analyzed the extent to which theory is meaningfully used in scholarly literature. For this purpose, they developed a *theory talk* coding scheme, which included six analytical categories, describing how theory is discussed in a study. The intensity of theory talk in the articles was described across a continuum from minimal (e.g., theory is discussed in literature review and not mentioned later) through moderate (e.g., multiple theories are introduced but without discussing their relevance to the study) to major (e.g., theory is employed throughout the study). Their findings seem to support the opinion that "*LIS discipline has been focused on the application of specific theoretical frameworks rather than the generation of new theories*" (p. 179) [30]. Another point the authors made was about the multiple terms used in the articles to describe theory. Words such as "framework," "model," or "theory" were used interchangeably by scholars.

It is evident from the above discussion that the treatment of theory in LIS research covers a spectrum of intensity, from marginal mentions to theory revising, expanding, or building. Recent analyses of the published scholarship indicate that the field has not been very successful in contributing to existing theory or producing new theory. In spite of this, one may still assert that LIS research employs theory, and, in fact, there are many theories that have been used or generated by LIS scholars. However, "*calls for additional and novel theory development work in LIS continue, particularly for theories that might help to address the research practice gap*" (p. 12) [31].

3. Research strategies in LIS

3.1. Surveys of research methods

LIS is a very broad discipline, which uses a wide range of constantly evolving research strategies and techniques [32]. Various classification schemes have been developed to analyze methods employed in LIS research (e.g., [13, 15, 17, 33–35, 38]). Back in 1996, in the "research record" column of the Journal of Education for Library and Information Science, Kim [36] synthesized previous categories and definitions and introduced a list of research strategies, including data collection and analysis methods. The listing included four general research strategies: (i) theoretical/philosophical inquiry (development of conceptual models or frameworks), (ii) bibliographic research (descriptive studies of books and their properties as well as bibliographies of various kinds), (iii) R&D (development of storage and retrieval systems, software, interface, etc.), and (iv) action research, it aims at solving problems and bringing about change in organizations. Strategies are then divided into quantitative and qualitative driven. In the first category are included descriptive studies, predictive/explanatory studies, bibliometric studies, content analysis, and operation research studies. Qualitative-driven strategies are considered the following: case study, biographical method, historical method, grounded theory, ethnography, phenomenology, symbolic interactionism/semiotics, sociolinguistics/discourse analysis/ethnographic semantics/ethnography of communication, and hermeneutics/interpretive interactionism (p. 378–380) [36].

Systematic studies of research methods in LIS started in the 1980s and several reviews of the literature have been conducted over the past years to analyze the topics, methodologies, and quality of research. One of the earliest studies was done by Peritz [37] who carried out a bibliometric analysis of the articles published in 39 core LIS journals between 1950 and 1975. She examined the methodologies used, the type of library or organization investigated, the type of activity investigated, and the institutional affiliation of the authors. The most important findings were a clear orientation toward library and information service activities, a widespread use of the survey methodology, a considerable increase of research articles after 1960, and a significant increase in theoretical studies after 1965.

Nour [38] followed up on Peritz's [37] work and studied research articles published in 41 selected journals during the year 1980. She found that survey and theoretical/analytic methodologies were the most popular, followed by bibliometrics. Comparing these findings to those made by Peritz [37], Nour [38] found that the amount of research continued to increase, but the proportion of research articles to all articles had been decreasing since 1975.

Feehan et al. [13] described how LIS research published during 1984 was distributed over various topics and what methods had been used to study these topics. Their analysis revealed a predominance of survey and historical methods and a notable percentage of articles using more than one research method. Following a different approach, Enger et al. (1989) focused on the statistical methods used by LIS researchers in articles published during 1985 [39]. They found that only one out of three of the articles reported any use of statistics. Of those, 21% used descriptive statistics and 11% inferential statistics. In addition, the authors found that researchers from disciplines other than LIS made the highest use of statistics and LIS faculty showed the highest use of inferential statistics.

An influential work, against which later studies have been compared, is that of Jarvelin and Vakkari [15] who studied LIS articles published in 1985 in order to determine how research was distributed over various subjects, what approaches had been taken by the authors, and what research strategies had been used. The authors replicated their study later to include older research published between 1965 and 1985 [40]. The main finding of these studies was that the trends and characteristics of LIS research remained more or less the same over the aforementioned period of 20 years. The most common topics were information service activities and information storage and retrieval. Empirical research strategies were predominant, and of them, the most frequent was the survey. Kumpulainen [41], in an effort to provide a continuum with Jarvelin and Vakkeri's [15] study, analyzed 632 articles sampled from 30 core LIS journals with respect to various characteristics, including topics, aspect of activity, research method, data selection method, and data analysis techniques. She used the same classification scheme, and she selected the journals based on a slightly modified version of Jarvelin and Vakkari's [15] list. Library services and information storage and retrieval emerged again as the most common subjects approached by the authors and survey was the most frequently used method.

More recent studies of this nature include those conducted by Koufogiannakis et al. [42], Hildreth and Aytac [43], Hider and Pymm [32], and Chu [17]. Koufogiannakis et al. [42] examined research articles published in 2001 and they found that the majority of them were questionnaire-based descriptive studies. Comparative, bibliometrics, content analysis, and program evaluation studies were also popular. Information storage and retrieval emerged as the predominant subject area, followed by library collections and management. Hildreth and Aytac [43] presented a review of the 2003–2005 published library research with special focus on methodology issues and the quality of published articles of both practitioners and academic scholars. They found that most research was descriptive and the most frequent method for data collection was the questionnaire, followed by content analysis and interviews. With regard to data analysis, more researchers used quantitative methods, considerably less used qualitative-only methods, whereas 61 out of 206 studies included some kind of qualitative analysis, raising the total percentage of qualitative methods to nearly 50%. With regard to the quality of published research, the authors argued that "*the majority of the reports are detailed, comprehensive, and well-organized*" (p. 254) [43]. Still, they noticed that the majority of reports did not mention the critical issues of research validity and reliability and neither did they indicate study limitations or future research recommendations. Hider and Pymm [32] described content analysis of LIS literature "*which aimed to identify the most common strategies and techniques employed by LIS researchers carrying out high-profile empirical research*" (p. 109). Their results suggested that while researchers employed a wide variety of strategies, they mostly used surveys and experiments. They also observed that although quantitative research accounted for more than 50% of the articles, there was an increase in the use of most sophisticated qualitative methods. Chu [17] analyzed the research articles published between 2001 and 2010 in three major journals and reported the following most frequent research methods: theoretical approach (e.g., conceptual analysis), content analysis, questionnaire, interview, experiment, and bibliometrics. Her study showed an increase in both the number and variety of research methods but lack of growth in the use of qualitative research or in the adoption of multiple research methods.

In summary, the literature shows a continued interest in the analysis of published LIS research. Approaches include focusing on particular publication years, geographic areas, journal titles, aspects of LIS, and specific characteristics, such as subjects, authorship, and research methods. Despite the abundance of content analyses of LIS literature, the findings are not easily comparable due to differences in the number and titles of journals examined, in the types of the papers selected for analysis, in the periods covered, and in classification schemes developed by the authors to categorize article topics and research strategies. Despite the differences, some findings are consistent among all studies:

- Information seeking, information retrieval, and library and information service activities are among the most common subjects studied,
- Descriptive research methodologies based on surveys and questionnaires predominate,
- Over the years, there has been a considerable increase in the array of research approaches used to explore library issues, and
- Data analysis is usually limited to descriptive statistics, including frequencies, means, and standard deviations.

3.2. Data collection and analysis

Articles published between 2011 and 2016 were obtained from the following journals: Library and Information Science Research, College & Research Libraries, Journal of Documentation, Information Processing & Management, and Journal of Academic Librarianship (**Table 1**). These five titles were selected as data sources because they have the highest 5-year impact factor of the journals classified in Ulrich's Serials Directory under the "Library and Information Sciences" subject heading. From the journals selected, only full-length articles were collected. Editorials, book reviews, letters, interviews, commentaries, and news items were excluded from the analysis. This selection process yielded 1643 articles. A stratified random sample of 440 articles was chosen for in-depth analysis (**Table 2**). For the purpose of this study, five strata, corresponding to the five journals, were used. The sample size was determined using a margin of error, 4%, and confidence interval, 95%.

Each article was classified as either research or theoretical. Articles that employed specific research methodology and presented specific findings of original studies performed by the author(s) were considered research articles. The kind of study may vary (e.g., it could be an experiment, a survey, etc.), but in all cases, raw data had been collected and analyzed, and conclusions were drawn from the results of that analysis. Articles reporting research in system design or evaluation in the information systems field were also regarded as *research articles*. On the other hand, works that reviewed theories, theoretical concepts, or principles discussed topics of interest to researchers and professionals, or described research methodologies were regarded as theoretical articles [44] and were classified in the *no-empirical-research* category. In this category, were also included literature reviews and articles describing a project, a situation, a process, etc.

Each article was classified into a topical category according to its main subject. The articles classified as research were then further explored and analyzed to identify (i) research approach, (ii) research methodology, and (iii) method of data analysis. For each variable, a coding scheme was developed, and the articles were coded accordingly. The final list of the

	Libr & Inf Sci Res	Coll & Res Libr	J Doc	Inf Proc & Manag	J Acad Libr
Scope	The research process in library and information science as well as research findings and, where applicable, their practical applications and significance	All fields of interest and concern to academic and research libraries	Theories, concepts, models, frameworks, and philosophies related to documents and recorded knowledge	Theory, methods, or application in the field of information science	Problems and issues germane to college and university libraries
Publisher	Elsevier	ACRL	Emerald	Elsevier	Elsevier
Start year	1979	1939	1945	1963	1975
Frequency	Quarterly	Bi-monthly	Bi-monthly	Bi-monthly	Bi-monthly
5-year impact factor	1.981	1.617	1.480	1.468	1.181

Table 1. Profile of the journals.

Titles	Total number of articles	Articles selected
Libr & Inf Sci Res	214	57
Coll & Res Libr	233	62
J of Docum	304	81
Inf Proc & Manag	432	116
J Acad Libr	460	123
Total	**1643**	**440**

Table 2. Journal titles.

analysis codes was extracted inductively from the data itself, using as reference the taxonomies utilized in previous studies [15, 32, 43, 45]. Research approaches "*are plans and procedures for research*" (p. 3) [46]. Research approaches can generally be grouped as qualitative, quantitative, and mixed methods studies. Quantitative studies aim at the systematic empirical investigation of quantitative properties or phenomena and their relationships. Qualitative research can be broadly defined as "*any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification*" (p. 17) [47]. It is a way to gain insights through discovering meanings and explaining phenomena based on the attributes of the data. In mixed model research, quantitative and qualitative approaches are combined within or across the stages of the research process. It was beyond the scope of this study to identify in which stages of a study—data collection, data analysis, and data interpretation—the mixing was applied or to reveal the types of mixing. Therefore, studies using both quantitative and qualitative methods, irrespective of whether they describe if and how the methods were integrated, were coded as mixed methods studies.

Research methodologies, or strategies of inquiry, are types of research models "*that provide specific direction for procedures in a research design*" (p. 11) [46] and inform the decisions concerning data collection and analysis. A coding schema of research methodologies was developed by the authors based on the analysis of all research articles included in the sample. The methodology classification included 12 categories (**Table 3**). Each article was classified into one category for the variable *research methodology*. If more than one research strategy was mentioned (e.g., experiment and survey), the article was classified according to the main strategy.

Methods of data analysis refer to the techniques used by the researchers to explore the original data and answer their research problems or questions. Data analysis for quantitative researches involves statistical analysis and interpretation of figures and numbers. In qualitative studies, on the other hand, data analysis involves identifying common patterns within the data and making interpretations of the meanings of the data. The array of data analysis methods included the following categories:

- Descriptive statistics,
- Inferential statistics,
- Qualitative data analysis,
- Experimental evaluation, and
- Other methods,

Descriptive statistics are used to describe the basic features of the data in a study. Inferential statistics investigate questions, models, and hypotheses. Mathematical analysis refers to mathematic functions, etc. used mainly in bibliometric studies to answer research questions associated with citation data. Qualitative data analysis is the range of processes and procedures used for the exploration of qualitative data, from coding and descriptive analysis to identification of patterns and themes and the testing of emergent findings and hypotheses. It was used in this study as an overarching term encompassing various types of analysis, such as thematic analysis, discourse analysis, or grounded theory analysis. The class experimental evaluation was used for system and software analysis and design studies which assesses the newly developed algorithm, tool, method, etc. by performing experiments on selected datasets. In these cases, "experiments" differ from the experimental designs in social sciences. Methods that did not fall into one of these categories (e.g., mathematical analysis, visualization, or benchmarking) were classified as *other methods*. If both descriptive and inferential statistics were used in an article, only the inferential were recorded. In mixed methods studies, each method was recorded in the order in which it was reported in the article.

Ten percent of the articles were randomly selected and used to establish inter-rater reliability and provide basic validation of the coding schema. Cohen's kappa was calculated for each coded variable. The average Cohen's kappa value was $\kappa = 0.60$, $p < 0.000$ (the highest was 0.63 and lowest was 0.59). This indicates a substantial agreement [48]. The coding disparities across raters were discussed, and the final codes were determined via consensus.

Research methodology	Description
Action research	Systematic procedure for collecting information about and subsequently improving a particular situation in a setting where there is a problem needing a solution or change
Bibliometrics	"A series of techniques that seeks to quantify the process of written communication" (Ikpaahindi, 1985). The most common type of bibliometric research is citation analysis
Case study	In-depth exploration of an activity, an event, a program, etc., usually using a variety of data collection procedures
Content analysis	Analysis (qualitative or quantitative) of secondary text or visual material
Ethnography	Study of behavior, actions, etc. of a group in a natural setting
Experiment	Pre-experimental designs, quasi-experiments, and true experiments aiming at investigating relationships between variables establishing possible cause-and-effect relationships
Grounded theory	The development of a theory "of a process, action, or interaction grounded in the views of participants" (Creswell, 2014, p. 87)
Mathematical method	Studies employing mathematical analysis (e.g., integrals)
Phenomenological	The study of the lived experiences of individuals about a phenomenon (Creswell, 2009)
Secondary data analysis	Use of existing data (e.g., circulation statistics, institutional repository data, etc.) to answer the research question(s)
Survey	Descriptive research method used to "describe the characteristics of, and make predictions about, a population" ("LARKS: Librarian and Researcher Knowledge Space," 2017)
System and software analysis/design	Development and experimental evaluation of tools, techniques, systems, etc. related to information retrieval and related areas

Table 3. Coding schema for research methodologies.

3.3. Results

3.3.1. Topic

Table 4 presents the distribution of articles over the various topics, for each of which a detailed description is provided. The five most popular topics of the papers in the total sample of 440 articles were "information retrieval," "information behavior," "information literacy," "library services," and "organization and management." These areas cover over 60% of all topics studied in the papers. The least-studied topics (covered in less than eight papers) fall into the categories of "information and knowledge management," "library information systems," "LIS theory," and "infometrics."

Figure 1 shows how the top five topics are distributed across journals. As expected, the topic "information retrieval" has higher publication frequencies in Information Processing &

Topic	Description	%
Information retrieval	Theory, algorithms, and experiments in information retrieval, issues related to data mining, and knowledge discovery	21.6
Information behavior	Interaction of individuals with information sources. Topics such as information access, information needs, information seeking, and information use are included here	15.0
Information literacy	Issues related to information literacy and bibliographic instruction (methods, assessment, competences and skills, attitudes, etc.)	9.5
Library services	Issues related to different library services, such as circulation, reference services, ILL, digital services, etc., including innovative programs and services	9.3
Organization and management	Elements of library management and administration, such as staffing, budget, financing, etc. and issues related to the assessment of library services, standards, etc.	7.3
Scholarly communication	Issues related to different aspects of scholarly communication, such as publishing, open access, analysis of literature, methods, and techniques for the evaluation and impact of scientific research (e.g., journal rankings, bibliometric indices, etc.)	5.7
Digital libraries and metadata	Issues related to digital collections, digital libraries, institutional repositories, design and use of metadata, as well as data management and curation activities	4.3
Knowledge organization	Processes (e.g., cataloguing, subject analysis, indexing and classification) and knowledge and information organization systems (e.g., classification systems, lists of subject headings, thesauri, ontologies)	4.3
Library collections	Development and evaluation of all types of library collections, including special collections. Issues related to e-resources (e-books, e-journals, etc.), including their use, evaluation, management, etc.	3.9
Library personnel	Issues related to library personnel (qualifications, professional development, professional experiences, etc.)	3.6
Research in LIS	Issues related to research methods employed in LIS research as well as librarians' engagement in research activities	3.0
Social media	Issues related to social media (facebook, twitter, blogs, etc.) and their use by both libraries and library users	2.5
Spaces and facilities	Library buildings, library as place	2.0
Information/knowledge management	Issues related to the process of finding, selecting, organizing, disseminating, and transferring information and knowledge	1.6
Library information systems	Issues related to different aspects of information systems, such as OPAC, ILS, etc. Design, content, and usability of library websites	1.6

Topic	Description	%
LIS theory	Issues related to theoretical aspects of LIS and theoretical studies on the transmission, processing, utilization, and extraction of information	1.6
Infometrics	The use of mathematical and statistical methods in research related to information. Bibliometrics and webometrics are included here	1.1
Other	Topics that could not be classified anywhere else and were represented by minimal number of articles (e.g., information history, faculty-librarian cooperation)	2.0
Total		100

Table 4. Article topics.

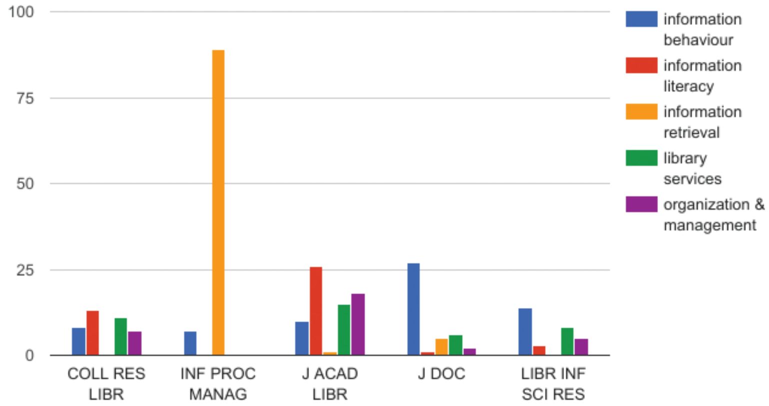

Figure 1. Distribution of topics across journals.

Management, a journal focusing on system design and issues related to the tools and techniques used in storage and retrieval of information. "Information literacy," "information behavior," "library services," and "organization and management" appear to be distributed almost proportionately in College & Research Libraries. "Information literacy" seems to be a more preferred topic in the Journal of Academic Librarianship, while "information behavior" is more popular in the Journal of Documentation and Library & Information Science Research.

3.3.2. Research approach and methodology

Of all articles examined, 343 articles, which represent the 78% of the sample, reported empirical research. The rest 22% (N = 97) were classified as non-empirical research papers. Research articles were coded as quantitative, qualitative, or mixed methods studies. An overwhelming majority (70%) of the empirical research articles employed a quantitative research approach. Qualitative and mixed methods research was reported in 21.6 and 8.5% of the articles, respectively (**Figure 2**).

Table 5 presents the distribution of research approaches over the five most famous topics. The quantitative approach clearly prevails in all topics, especially in information retrieval research. However, qualitative designs seem to gain acceptance in all topics (except information retrieval), while in information behavior research, quantitative and qualitative approaches are almost evenly distributed. Mixed methods were quite frequent in information literacy and information behavior studies and less popular in the other topics.

The most frequently used research strategy was survey, accounting for almost 37% of all research articles, followed by system and software analysis and design, a strategy used in this study specifically for research in information systems (Jarvelin & Vakkari, 1990). This result is influenced by the fact that Information Processing & Management addresses issues at the intersection between LIS and computer science, and the majority of its articles present the development of new tools, algorithms, methods and systems, and their experimental evaluation. The third- and fourth-ranking strategies were content analysis and bibliometrics. Case study, experiment, and secondary data analysis were represented by 15 articles each, while the rest of the techniques were underrepresented with considerably fewer articles (**Table 6**).

3.3.3. Methods of data analysis

Table 7 displays the frequencies for each type of data analysis.

Almost half of the empirical research papers examined reported any use of statistics. Descriptive statistics, such as frequencies, means, or standard deviations, were more frequently used compared to inferential statistics, such as ANOVA, regression, or factor analysis. Nearly one-third of the articles employed some type of qualitative data analysis either as the only method or—in mixed methods studies—in combination with quantitative techniques.

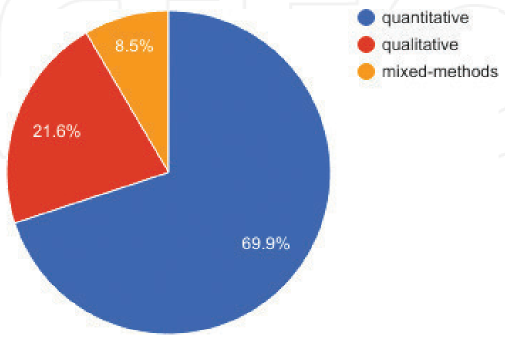

Figure 2. Research approach.

Topics	Mixed methods	Qualitative	Quantitative
Information behavior	14.0%	40.4%	45.6%
Information literacy	17.6%	26.5%	55.9%
Information retrieval	0.0%	0.0%	100.0%
Library services	3.6%	39.3%	57.1%
Organization and management	4.8%	23.8%	71.4%

Table 5. Topics across research approach.

Research methodology	%
Survey	37.0
System and software analysis/design	26.8
Content analysis	9.6
Bibliometrics	6.4
Case study	4.4
Experiment	4.4
Secondary data analysis	4.4
Grounded theory	2.6
Phenomenological	2.0
Ethnography	1.5
Action research	0.6
Mathematical method	0.3
Total	100.0

Table 6. Research methodologies.

Method	%
Descriptive statistics	28.4
Inferential statistics	18.5
Qualitative data analysis	27.1
Experimental evaluation	24.7
Other methods	1.3
Total	100

Table 7. Method of data analysis.

3.4. Discussions and conclusions

The patterns of LIS research activity as reflected in the articles published between 2011 and 2016 in five well-established, peer-reviewed journals were described and analyzed. LIS literature addresses many and diverse topics. Information retrieval, information behavior, and library services continue to attract the interest of researchers as they are core areas in library science. Information retrieval has been rated as one of the most famous areas of interest in research articles published between 1965 and 1985 [40]. According to Dimitroff [49], information retrieval was the second most popular topic in the articles published in the Bulletin of the Medical Library Association, while Cano [50] argued that LIS research produced in Spain from 1977 to 1994 was mostly centered on information retrieval and library and information services. In addition, Koufogiannakis et al. [42] found that information access and retrieval were the domain with the most research, and in Hildreth and Aytac's [43] study, most articles were dealing with issues related to users (needs, behavior, information seeking, etc.), services, and collections. The present study provides evidence that the amount of research in information literacy is increasing, presumably due to the growing importance of information literacy instruction in libraries. In recent years, there is an ongoing educational role for librarians, who are more and more actively engaging in the teaching and learning processes, a trend that is reflected in the research output.

With regard to research methodologies, the present study seems to confirm the well-documented predominance of survey in LIS research. According to Dimitroff [49], the percentage related to use of survey research methods reported in various studies varied between 20.3 and 41.5%. Powell [51], in a review of the research methods appearing in LIS literature, pointed out that survey had consistently been the most common type of study in both dissertations and journal articles. Survey reported the most widely used research design by Jarvelin and Vakkari [40], Crawford [52], Hildreth and Aytac [43], and Hider and Pymm [32]. The majority of articles examined by Koufogiannakis et al. [42] were descriptive studies using questionnaires/surveys. In addition, survey methods represented the largest proportion of methods used in information behavior articles analyzed by Julien et al. [53]. There is no doubt that survey has been used more than any other method in LIS research. As Jarvelin and Vakkari [15] put it, "it appears that the field is so survey-oriented that almost all problems are seen through a survey viewpoint" (p. 416). Much of survey's popularity can be ascribed to its being a well-known, understood, easily conducted, and inexpensive method, which is easy to analyze results [41, 42]. However, our findings suggest that while the survey ranks high, a variety of other methods have been also used in the research articles. Content analysis emerged as the third-most frequent strategy, a finding similar to those of previous studies [17, 32]. Although content analysis was not regarded by LIS researchers as a favored research method until recently, its popularity seems to be growing [17].

Quantitative approaches, which dominate, tend to rely on frequency counts, percentages, and descriptive statistics used to describe the basic features of the data in a study. Fewer studies used advanced statistical analysis techniques, such as t-tests, correlation, and regressions, while there were some examples of more sophisticated methods, such as factor analysis, ANOVA, MANOVA, and structural equation modeling. Researchers engaging in quantitative

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research designs should take into consideration the use of inferential statistics, which enables the generalization from the sample being studied to the population of interest and, if used appropriately, are very useful for hypothesis testing. In addition, multivariate statistics are suitable for examining the relationships among variables, revealing patterns and understanding complex phenomena.

The findings also suggest that qualitative approaches are gaining increasing importance and have a role to play in LIS studies. These results are comparable to the findings of Hider and Pymm [32], who observed significant increases for qualitative research strategies in contemporary LIS literature. Qualitative analysis description varied widely, reflecting the diverse perspectives, analysis methods, and levels of depth of analysis. Commonly used terms in the articles included coding, content analysis, thematic analysis, thematic analytical approach, theme, or pattern identification. One could argue that the efforts made to encourage and promote qualitative methods in LIS research [54, 55] have made some impact. However, qualitative research methods do not seem to be adequately utilized by library researchers and practitioners, despite their potential to offer far more illuminating ways to study library-related issues [56]. LIS research has much to gain from the interpretive paradigm underpinning qualitative methods. This paradigm assumes that social reality is

> *the product of processes by which social actors together negotiate the meanings for actions and situations; it is a complex of socially constructed meanings. Human experience involves a process of interpretation rather than sensory, material apprehension of the external physical world and human behavior depends on how individuals interpret the conditions in which they find themselves. Social reality is not some 'thing' that may be interpreted in different ways, it is those interpretations (p. 96) [57].*

As stated in the introduction of this chapter, library and information science focuses on the interaction between individuals and information. In every area of LIS research, the connection of factors that lead to and influence this interaction is increasingly complex. Qualitative research searches for "*all aspects of that complexity on the grounds that they are essential to understanding the behavior of which they are a part*" (p. 241) [59]. Qualitative research designs can offer a more in-depth analysis of library users, their needs, attitudes, and behaviors.

The use of mixed methods designs was found to be rather rare. While Hildreth and Aytac [43] found higher percentages of studies using combined methods in data analysis, our results are analogous to those shown by Fidel [60]. In fact, as in her study, only few of the articles analyzed referred to mixed methods research by name, a finding indicating that "*the concept has not yet gained recognition in LIS research*" (p. 268). Mixed methods research has become an established research approach in the social sciences as it minimizes the weaknesses of quantitative and qualitative research alone and allows researchers to investigate the phenomena more completely [58].

In conclusion, there is evidence that LIS researchers employ a large number and wide variety of research methodologies. Each research approach, strategy, and method has its advantages and limitations. If the aim of the study is to confirm hypotheses about phenomena or measure and analyze the causal relationships between variables, then quantitative methods might be used. If the research seeks to explore, understand, and explain phenomena then qualitative methods might be used. Researchers can consider the full range of possibilities and make their selection based on the philosophical assumptions they bring to the study, the research problem being addressed, their personal experiences, and the intended audience for the study [46].

Taking into consideration the increasing use of qualitative methods in LIS studies, an in-depth analysis of papers using qualitative methods would be interesting. A future study in which the different research strategies and types of analysis used in qualitative methods will be presented and analyzed could help LIS practitioners understand the benefits of qualitative analysis.

Mixed methods used in LIS research papers could be analyzed in future studies in order to identify in which stages of a study, data collection, data analysis, and data interpretation, the mixing was applied and to reveal the types of mixing.

As far as it concerns the quantitative research methods, which predominate in LIS research, it would be interesting to identify systematic relations between more than two variables such as authors' affiliation, topic, research strategies, etc. and to create homogeneous groups using multivariate data analysis techniques.

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Chapter 4

Assessment of Care for Cultural Competence in Healthcare Services: A Systematic Rewiev of Qualitative Studies

Seyma Demir and Yasemin Yildirim Usta

Additional information is available at the end of the chapter

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Abstract

Background: Societies have a multicultural structure characterized by the spread of cultural diversity and having to live together with different ethnic origins, languages, and racial individuals. This requires that health professionals should adopt a care approach regarding cultural competence in order to prevent health inequalities due to cultural differences, to meet the health needs at desired level, and to enable maintenance of evidence-based care. **Objective:** To assess the cultural competence of the care provided in healthcare services. **Methods:** Academic Search Complete, CINAHL, Proquest, Sage, and ScienceDirect databases were scanned; seven articles matching the criteria were evaluated. **Findings:** (1) The number of articles that examined clearly and comprehensively in the context of qualitative research relationship between cultural competence and healthcare services was few, (2) the results couldn’t be combined into a common pavilion because many of the studies have processed on independent topics by addressing different dimensions of cultural competence, (3) in studies, it has been found that important components of care such as mutual communication, trust-based care environment, positive and non-judgmental approaches of health professionals, clinical skills, and linguistic differences were effective for cultural competence of healthcare services.

Keywords: culture, cultural competence, care, qualitative studies, healthcare services

1. Introduction

In recent years, with emphasis on evidence-based health care, systematic review techniques are confronted in researches in the sense that they synthesize the data obtained on a subject and reveal important points about the subject [1]. Qualitative research also is one of the processes of producing knowledge that is meant to understand people's lifestyles, their stories, their behavior, organizational structures and social change. Contrary to quantitative research, qualitative research aims to explore the subjective viewpoints of events for people and is therefore reported to be superior than quantitative research [2]. According to this, in this section of the book is devoted to the interpretation of qualitative studies dealing with the concept of cultural competence in health services. For this reason, there are two main factors in the selection of this topic: (1) increased health inequalities caused by cultural differences in health care with the presence of a growing immigration world in the world and (2) encounter the difficulties of health professionals when they serve individuals with different cultural characteristics and occurrence of cultural conflicts between service providers and customers.

According to the statistics of the global immigration report of the United Nations at the end of 2013, the number of international immigrants in the world is increasing every year [3]. The increasing activities of multinational corporations, international business and money markets, non-governmental organizations and the emerging tourism sector are causing millions of people to shift internationally every day. Migration events for various reasons lead to the encounter of different cultures, and the necessity of maintaining the coexistence of people from different cultures brings about important problems of harmony and conflict [4]. This changing nature of societies presents challenges for all healthcare professionals in the world, where patients are faced with diverse healthcare needs and expectations [5]. Thus, professional organizations and accreditation bodies have responded by mandating cultural competence training for healthcare professionals and healthcare education in United States of America (USA) [6].

Cultural norms such as language, beliefs, and practices can easily be misunderstood in a multicultural environment. For this reason, cultural and language difficulties between both patients and healthcare providers and the healthcare team have the potential to adversely affect the ability of healthcare professionals to work competently and safely [7].

The health literature on cultural competence which includes components such as cultural understanding, cultural sensitivity and cultural encounters in healthcare services has gained momentum in recent years. "Cultural competence" is a widely accepted approach to focus on diversity in health care [5]. In addition, this concept is one of the most frequently used cultural paradigms in health care, but it is not the only one. Concurrently, the existence of cultural concepts (e.g., cultural sensitivity, cultural awareness, cultural efficacy, cultural safety, cultural humility, cultural proficiency, transnational competence, cultural empathy, cultural relevance, cultural agility), many of which are not clearly defined, described, conceptualized, or discussed in relation to each other creates confusion [6]. There is a lot of unknown about cultural competence. For this reason, increased work is needed to minimize this chaos that emerges among concepts, to fully explain cultural competence and to integrate it into the health system in different ways.

In this part of the book, discussion will be given on the findings of qualitative studies related to the subject as well as basic information on cultural competence based on the information obtained, aware of the lack of knowledge and the lack of information in the current literature.

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2. Background

2.1. The concept of cultural competence should be explained in the presentation of health services

Cultural competence is at the core of high quality, patient-centered care, and it directly impacts how care is delivered and received [8]. It is based on the principle of "*eliminating health inequalities and realizing an objective and equal representation of health services*" aimed at the primary level in a society. The main points in such a care approach should be cultural factors affecting health perceptions and health practices such as language, communication style, religious beliefs and practices, attitudes and behaviors as well as the diversity of the patient population [9]. Indeed, the lack of universal, full and clear meanings of the concept of cultural competence leads to confusion about the objectives, scope and content of educational activities to be provided to the cultural competence of health personnel.

Generally, culture is defined as the "integrated pattern of human behavior that includes thoughts, communications, actions, customs, beliefs, values and institutions of a racial, ethnic, religious or social group" [10] and an undeniable element in the delivering of health services. Competence implies having the capacity to function effectively as an individual and an organization within the context of the cultural beliefs, behaviors, and needs presented by consumers and their communities [11]. A health personnel who has provided cultural competent care should know that each culture is different from each other and their health needs will vary and he/she should take being able to express clearly their own cultural assets as the fundamental human right of all individuals naturally.

Cultural competence is essential for working with indigenous and ethnic minority individuals in all areas of healthcare services in a society. Culturally, competent health personnel must understand the views of the world and of their patients while avoiding stereotyping and misapplication of scientific knowledge [12]. In order to prevent inequality in health, culturally competent care is especially important for minorities who live in that community and who apply for health care and receive this service from the majority members of that community. Indeed, the most common causes of health inequality in minority communities include missed opportunities for screening because of lack of familiarity with the prevalence of conditions among certain minority groups; failure to take into account differing responses to medication; lack of knowledge about traditional remedies, leading to harmful drug interactions; and diagnostic errors resulting from miscommunication [8]. If the cultural factors are ignored, the healthcare quality will reduce, and the negative health outcomes will arise.

It should not be forgotten, in addition to ethnic and racial minority communities in care related to cultural competence, other groups (such as women, the elderly, gays and lesbians, people with disabilities, and religious minorities) [10] exposed to health inequality in the community should also be considered in depth. For example, in a particular society, gender norms may lead to differences in access to resources and health services as well as social status and power between men and women. In male-dominated societies, it is known that men control women's access to health services, which makes it more difficult for women to receive preventive and treatment services [13]. One of the most common cases is the desire of patients to select health personnel according to their genders. Or, on the other hand, despite the lack of a professional approach, avoiding interfering with a patient of opposite sex under the name of privacy intimidation by health personnel is one of the preferences that create inequity in health. For example, options like, especially, electing female physicians of women with pregnant or gynecological problems; trying to find male health personnel of female nurses for a male patient who will be urinary catheterization in the clinic are actions prolonging and limiting the service process even though they are not directly visible. Such situations also occur because of cultural norms as well as social role and religious perception of the individual. Cultural competence care should include awareness-based educational activities without undeniable cultural differences and anticipations at the level where comprehensive and effective results can be achieved in order to remove sexually related health disparities.

Cultural competence in the field of health should be examined and studied in order not to be exposed to prejudice and discrimination in terms of health personnel who are a minority in a particular society. Ethnic minority personnel who do not know their beliefs, attitudes and practices can experience a negative communication process with the patient/relatives because he/she cannot effectively develop his/her professional skills in the institution where he/she works. Developing a competence involves challenging one's prior knowledge and developing new knowledge in a dialectic manner through an iterative cycling of reflection and action. Hence, it should be continued throughout life [14].

In the literature, regarding cultural differences, it is emphasized that the incidence of cardiovascular diseases is low in France due to the presence of red wine consumption which compensates for the negative effect of high saturated fat intake [15]. Or, in the United States, it is known that African Americans may be likely to attribute illness externally to destiny. They believe that the disease comes from God and believe in the healing power of prayer [16]. In Muslim societies, while illness and disease may be regarded as a test from Allah, they carry tidings of forgiveness and mercy. Also, drinking zam-zam water to a patient in terminal period and reading the Qur'an at his/her head by family caregivers is believed that the spirit will come out easily from the body and he/she will die faithful [17]. Again in some cultures, especially in end-of-life care, pain is a symptom that should be relieved, in others is seen as a symptom that should be experienced as proof that the body struggles to come from above the disease [18]. Despite the cultural differences between health practices Leininger, person who first explained the term "cultural competence" related to health suggests that health personnels should have information about the cultural values, beliefs and practices of individuals in order to provide meaningful and harmonious care to people around the world [19].

2.2. Is the cultural competent care useful and important?

The understanding of cultural competent care has shown itself to be more evident and widespread in recent years. One of the most fundamental factors is the rapid population migration, and therefore, the multicultural communities have begun to live together. This increase in immigration among countries in the world has also led to an increase in the number of ethnic minority patients and ethnic minority health personnel in the health system [20]. In addition to this, the recognition of more equally equal rights within the society to the minority groups compared to the old and the expected satisfaction has demonstrated the importance of the concept of cultural competence in almost all service areas, including health services. Cultural competence as a concept beyond cultural awareness and sensitivity requires not only knowledge of different cultures but also skills, abilities, powers and competencies necessary for establishing respectfully and culturally appropriate relations [10, 18].

Cultural competence waits for health workers to recognize and respect the cultural diversity of the community or the individual's individual beliefs, health priorities, and cultural-specific practices rather than recognizing the specific beliefs, attitudes and behaviors of all cultures [19]. While providing culturally competent care has removed health inequalities caused by socioeconomic and cultural differences, it increases the quality of care and efficiency of the service, improves the health outcomes, and increases the satisfaction of the customers and healthcare provider [11, 13].

As a further opinion, cultural competence provides an inclusive approach to healthcare practice that enables a healthcare professional or healthcare system to provide meaningful, supportive, and beneficial health care that preserves every client's and every community's human rights and dignity [6].

2.3. What are components of cultural competence?

The concept of cultural competence is widening and the definitions, models and strategies of practice continue to evolve [5]. The concept of cultural competence is handled by different thinkers and theorists, and the results of the studies have also found subcomponents that are related to the concept. For example, according to a Swedish study, cultural competence includes nurses' cultural understanding, cultural sensitivity and cultural encounters [20]. Again, in the work done by Soulé [6], four independent but interrelated areas of cultural competence emerged: intrapersonal, interpersonal, system/organization, and global.

Components are also found in the models of cultural competence introduced by various theoreticians. Campinha-Bacote and Munoz offered a 5-component model for developing cultural competence: cultural awareness, cultural knowledge, cultural skill, cultural encounter, and cultural desire [21]. Qualitative study results related to the concept in the literature also revealed similar components in this model [6, 20]. Also, a task force of the Expert Panel for Global Nursing and Health of the American Academy of Nursing, along with members of the Transcultural Nursing Society, has developed 12 standards from social justice to evidence-based practice and research for cultural competence in nursing practice [22]. Even if they are not directly based, these standards are the titles that can indirectly lead to the maintenance of cultural competence in health services. However, in general, when the literature on the concept is examined, it is seen that the components most closely related to cultural competence are person-centered care, communication, system and organization.

2.4. Culturally competent care in health services requires technical skills

Language competence and providing interpreting services. By providing interpreting services for individuals from different cultures who speak different languages, the inadequacies and disruptions caused by language differences can be eliminated. Nowadays, health services can be provided to the patients who apply for medical tourism by considering the cultural differences in the units opened in the hospitals. Some of them have 24 h continuous interpreter services [10]. Language often mediates the experience of health care, difficulty adapting to new environment/culture and communication can affect the ability of healthcare personnel to meet the needs of their patients/relatives and the interaction between them for ethnic minority health personnel or patients [20]. Indeed, the inability of hospitals and health personnel to perform equally in languages other than their native language is an important factor in reducing the level of access to health care for many people. It is a condition that service providers need to understand in order to understand all the patients' information and explanations, to identify requirements and to be able to effectively manage the process [5].

Providing employment for minority individuals in health services can create an effective communication environment that can meet the needs of minority communities, common cultural beliefs and common language. Thus, a structured and developed health system will also occur, as well as existing health services will be a more welcoming environment for individuals from different cultures. Accordingly, to recognize the possibility of placement and scholarship for minority personnel, to create minority staff job notices, to make regulations by creating a safe working environment for minority personnel are basic interventions that can be done [10].

Cultural competence training programs aim to enhance cultural awareness, knowledge, and skills that cause changes in staff behavior and patient-staff interactions. Thus, it is important that health professionals should be acquired the necessary knowledge and skills to be able to provide culturally competent care to patients from different ethnic origins [20]. Such educational programs may be taken into the curricula of schools as part of their vocational education program, or in the institutions, personnel awareness and training can be provided by in-service training. At the same time, public information for minority groups, health screening programs, public audiovisual educational activities can be organized in order to create incentives to protect health [10]. But for all this to happen, healthcare personnel should also be open-minded and show a positive interest in learning about other cultures [20].

Coordinated study with appropriate traditional treatment methods allows that the healthcare service can be presented in a conceptual framework compatible with the current health system by taking into account the cultural beliefs and traditions of the individual. This increases the positive attitudes of individuals to treatment and care proposals and, commitment to the treatment process [10].

3. Methods

3.1. Objective

The primary objective of the current study is to assess the cultural competence of the care provided in healthcare services. To identify the current state of perceptions and views of

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health professionals related to cultural competence within the context of healthcare services, to identify the influencing factors cultural competence among recipients and caregivers, to improve care for cultural competence and to assess existing regulations used in the improvement of health practices also are secondary objectives of the study.

3.2. Searching and selection of papers

The study was carried out as a retrospective screening of publications related to the subject. The study was conducted by checking Academic Search Complete, CINAHL, Proquest, SAGE ve Science Direct databases. Scanning all databases was performed by "cultural competence/competency," "care," "health care services," and "qualitative research/study" key words. Article selection criteria included the studies carried out between 2006 and 2017, qualitative researches, English-language articles and studies that can be reached in full text. The sample group of the study does not include a single population. Within the context of health services, all sample groups included in cultural competence studies were included in the study. The quantitative researches, mix research methods (both qualitative and quantitative), thesis studies related to the subject and verbal or poster notifications presented in the congresses were not included in the scope of the study.

Because of their extensive experience for over a decade, each of the scanned articles was evaluated based on the Critical Appraisal Skills Program (CASP) 10 questions established for qualitative research. Each question has a number of sub-questions in order to determine the quality of qualitative articles and to decide whether it is consistent with the current research topic [23, 24]. According to this, seven articles matching the criteria have been reached and were evaluated.

3.3. Synthesis of the data

In the study, interpretation and evaluation of qualitative data were performed using metasynthesis techniques. Descriptive and content analysis were used together in the analysis of the data obtained at the end of the research process. First, the researcher gave a code to each article (A, B, C vs.). Second, in each article, the previously identified themes were made into a table. Third, common themes were created by the researcher using the previous literature information from each article. After, direct citations were made from the opinions of the individuals in relation to the topic within the text. In addition, under the identified common themes, the data in the studies have been thoroughly examined and interpreted (**Figure 1**) [25].

4. Findings and discussion

4.1. Description of studies

As a result of scanning the databases via current keywords, initially, 142 articles were found potentially relevant titles or abstracts. In these articles, eight duplications in multiple databases were removed from study. From the remaining articles, irrelevant records, quantitative

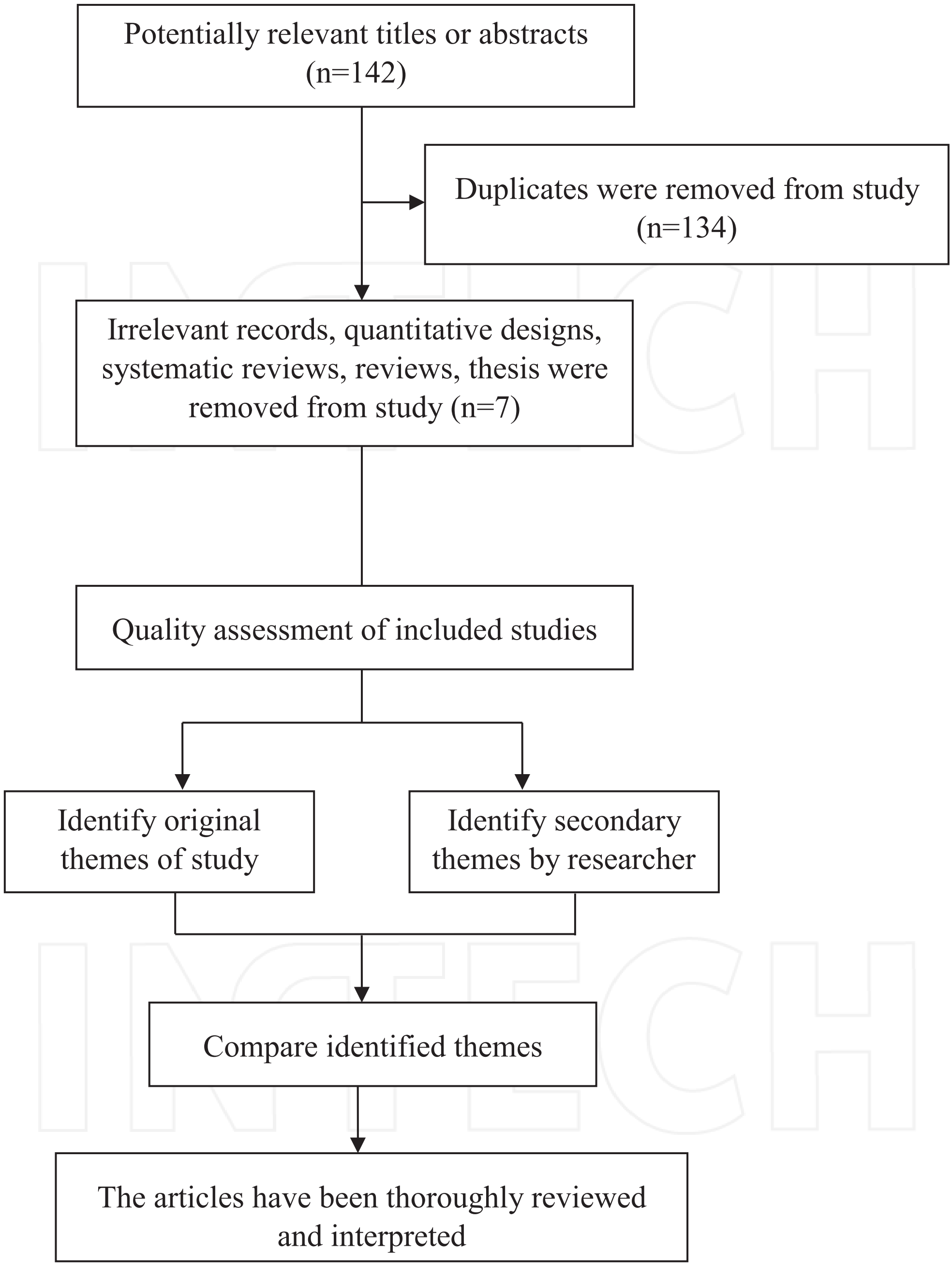

Figure 1. Showing the process of article selection and meta-synthesis.

designs, systematic reviews, reviews and thesis were removed from study (n = 127). As a result, seven articles meeting the inclusion criteria of the study were evaluated.

It appears that seven qualitative studies on determining the status of cultural competence in health services have been conducted in several different sample groups. It has been seen that the indispensable components of healthcare services such as cultural competence-related care and views of health professionals, educational activities and their effects on patient outcomes are involved in five of seven studies. Two of these five studies were based on improving nursing students' care ability about cultural competence. In the remaining two articles except for these five articles were established current status of cultural competence in the care of pediatric patients and were evaluated care activities related to cultural competence of health professionals in the eyes of patient families. In addition, a constructive theory was used to develop cultural competence in one of the two studies; in the other, ethnic nurses' views on cultural competence were determined by using the cultural competence model (**Table 1**).

4.2. Description of themes

As shown in **Table 1**, the themes deduced by the researchers are found that have been determined by the researchers of the articles included in the study. Second, in the seven studies examined, certain common themes on cultural competence in healthcare services were established. These themes are shown below:

- Cultural differences and cultural adaptation
- Cultural sensitivity
- Language skills and communication difficulties
- Ethical issues and uncertainty
- Nursing education, professional skills, and experiences

Besides the nature of evaluation by qualitative study design from a broad perspective of the cause of an event, the diversity of sample groups also provides an effective contribution to an in-depth analysis of the concept of cultural competence that we want to achieve in this section. The integration of all studies under common themes will allow a more holistic understanding of the subject.

4.2.1. Cultural differences and cultural adaptation

Today's businesses have a lot of people from different cultures, and at the same time, they have to work with individuals with different cultural backgrounds on the basis of their activities in international markets. While individual differences are experienced even in the society in which the individual lives, it cannot be said that individuals from other cultures are not affected by cultural differences. Indeed, if cultural influences on human behavior, mimics and speech patterns are considered, people from different cultures may find it difficult to understand and interpret, and communication difficulties may arise [26]. In this direction, the importance of intercultural adaptation arises. The concept of intercultural adaptation is

Publications	Database	Samples	The themes obtained from analyses related to cultural competence
Tavallali et al. [20]	Academic Search Complete	14 parents (seven mothers and seven fathers, not couples)	• ***Main categories:*** • Influence of nurses' ethnicity • Significance of cross-cultural communication • Cross-cultural skills • The importance of nursing education • ***Subcategories:*** • Nurses' ethnicity does not matter • Experiences of minority ethnic nurses • The importance of language skills • The importance of adaptation and awareness of the Swedish culture • Cultural encounters and personal attributes • Cultural sensitivity
Croot [5]	CINAHL	11 Pakistani parents and one grandparent from nine different families	• Being listened to and having expertise recognized • Control of care • A relationship of trust and mutual respect • Honesty • Non-judgmental • Genuine concern for welfare of the child • Relevant goals of treatment
Koskinen et al. [28]	CINAHL	48 European (n = 21) and Canadian (n = 27) nursing students	• Cross-cultural ethical issues • Cultural and social differences • Healthcare inequalities • Population health concerns • Personal and professional awareness
Kwong [30]	PROQUEST	College professors and/or experienced practitioners with 15 or more years of experiences in multicultural research, teaching, and practice in the USA	• Attitudinal components • Emotional components • Intellectual components • Integrative practice components

Publications	Database	Samples	The themes obtained from analyses related to cultural competence
Soulé [6]	CINAHL	20 participants from disciplines including nursing, medicine, and the social sciences	• ***Cultural competence themes*** • Awareness • Engagement • Application • ***Cultural competence domains*** • Intrapersonal • Interpersonal • System/organization • Global
Almutairi et al. [7]	SAGE	24 nurses comprised registered expatriate or Saudi nurses who had worked in the hospital for a minimum of 12 months	• ***Deductive analysis*** • Cultural awareness • Cultural knowledge • Cultural skill • Cultural encounter • Cultural desire • ***Inductive analysis*** • Culture Shock • Disempowerment
Garneau and Pepin [14]	Science direct	Nurses (n = 13) and students (n = 11)	• The development of cultural competence is a process of reflection and action • Building a relationship with the other, working outside the usual practice framework, and reinventing practice in action dimensions should be developed • This process involves three levels of development triggered by clinical immersion experience, whether local or international • Students' or nurses' learning environment fosters this process

Table 1. Methods and results of studies.

also expressed as the ability to adapt to life in another culture or to relate to other culture members. People, who are respectful, flexible, patient, concerned, curious, open, empathic, have a sense of humor, tolerance to uncertainty, motivated and able to evaluate individuals after a certain period of time can draw a successful profile in terms of cultural adaptation [27].

The concepts of cultural differences and cultural adaptation play a major role in all of the examined articles. Although the statements in the studies show that cultural differences are generally problematic in the execution of healthcare services, but there are also participants who do not hold this idea… as in Tavallali et al. [20]. Tavallali et al. [20] emphasized the importance of adaptation of minority ethnic nurses to Swedish culture in a study conducted on Swedish parents. According to some parents, minority ethnic nurses should provide their current cultural adaptation and integrate themselves into new cultures in their professional work, and implement them in this direction. But, some parents have stated that ethnicity is not effective in the care of their babies, but on the contrary, they are more pleased with regard to nurses from different ethnic origin.

"I have not experienced cultural differences as a barrier or something uncomfortable or anything like that at all, not at all"

"I personally think that foreign nurses are talented and much warmer and personal"

"The fact that they certainly have practiced where they come from and that they have adjusted to another culture,….. give them an advantage."

In the articles included in the present study, cultural differences and adaptation were mostly studied on nursing and nursing students, because they are at the center of care 24 h a day without interruption. Also, they are the biggest discipline in the field of health and the health workers who have the greatest interaction with the individuals who apply to the health institution. Of course, these are the main reasons for this.

Garneau and Pepin [14] also included nursing students in their studies, and it is stated that the interaction between patients, nurses and students can be overcome obstacles in the way of effective and quality care by bringing together different cultural specific facts such as beliefs and values, spoken language, professional standards, organizational structures and national policies and meeting a common payer. In the same study, participants stated that care would be effective and qualified if the individual's age and gender as well as cultural differences such as sexual orientation, social status, religious beliefs, or ethnicity were taken into consideration and individualized care needs were met.

In the study of Koskinen et al. [28] which European and Canadian nursing students are faced with a different cultural health system through mutual exchange, they tried to reflect unknown cultural and social differences in comparison with their own cultures. By doing this in a variety of ways in team work, in a range of health programs, services, techniques and methods ranging from unusual aseptic and safety issues to different or limited nurse roles, they have begun to understand and adapt to the primary healthcare system, especially those they do not know. As a matter of fact, they have begun to experience positive experiences when they are faced with these difficulties of cultural diversity and accepting those cultural specific practices. Students have also encountered surprising situations that differ from their cultural beliefs within the scope of this change program, and they have also suffered dilemmas in health practices.

"This particular event was based on a home visit to a rural family…. there was a baby carriage sitting on the front step…. I for sure was shocked, as we do not do this at home…. then making tea and coffee, bringing out cakes, cookies, and much more....this is not normal in our culture…we are told not to accept anything from any of the clients that we visit"

"If her family doctor was a male… there had to be a female nurse present in the room during the gynaecological examination… It is a good thing to secure women's sexual integrity but this sounds as overprotection"

In fact, this situation could be examined under the heading of ethical issues, but what sets this dilemma is the cultural values, attitudes and behaviors of these students. Although one of the most important obstacles to the presentation of health services in multicultural societies is laid as intercultural differences and cultural conflict, it can be considered that the main problem arises from the ineffectiveness of individuals' desires and behaviors in order to recognize and understand different cultures mutually. As a matter of fact, intercultural differences are not an issue that cannot be surpassed in the presentation of health services. In particular, beneficial intercultural experiences that can be organized for nursing students can contribute to the development of a new perspective of nursing care and understanding of professional philosophy.

4.2.2. Cultural sensitivity

Culturally, sensitive care in terms of health services is one of the most fundamental components of cultural competence in a significant majority of studies based on models or concept [29]. In the examined articles, besides the direct expression of cultural sensitivity in the examined articles, expressions including subcategories such as cultural awareness, cultural understanding, respect for cultural norms and values, trust relation and honesty, and interest without prejudice were frequently encountered in addition to direct expression of cultural sensitivity. It is also emphasized that cultural sensitivity is an unalterable challenge to culturally competent care [5, 6, 14, 20, 30].

Results of a study with children with disabilities revealed the interaction between the participants, the parents and the health personnel rather than quality of care of parents. In these studies, parents underlined that their caregiver roles should be considered important by health personnels and the necessity of mutual respect, listening and empathic approach [5]. *"I understand what he needs but they didn't know."* In this context, the parent would like to emphasize that healthcare professionals should be sensitive about to the fact that they have sufficient expertise in the care of the child with disabilities and that the parent's views must be respected in decisions regarding the care of the child. Indeed, culture shapes the views of individuals and health professionals accept and respect cultural differences [18].

Some parents have emphasized the importance of trust relationship in these studies, and they have stated they did not trust the health personnels. Because, according to them, the professionals involved in the care of the child did not fully understand their concerns or the complexity of the child's problems. Or they were more worried about the care of their children when they thought personnels were not being honest [5]. *"They will have known he had got a problem but they didn't tell us."* Parents felt that nurses should have a humanistic perspective and be sensitive to the cultural needs of the patients. According to them, nurses should be open to cultural differences and have confidence in asking questions. Although there were individual and religious differences, respect and empathy were important components in maintaining the care [20].

In another study, aiming to contribute to the integration of cultural competence into health education and the theoretical development of cultural competence reflects cultural sensitivity as one of the indicators of healthcare quality and assessed by experts in the field of cultural competence has been reported the importance of expressions of the humility, empathy, voluntary participation without color and race discrimination, intention. According to interviews with participants in different disciplines of the health field, the following expression of an expert participant *"Understanding an individual and their context requires…When you understand the context you can drop the judgment"* or the expression of the other *"It's a combination of accepting difference and withholding evaluation of that difference. The key in dealing with others is humility and a respect for difference…"*or the other "*"Have you had experiences where you have been treated poorly as a result of the fact that you have dark skin…or look Hispanic?"* are indications for this [6].

In the other two studies examined, similar expressions evaluated by expert health personnels were also included. Specialists emphasized the need to know religious practices and health beliefs while respecting the cultural identities and, need to respect the cultural identities and therapeutic preferences of individuals. Also, it has been suggested that personnels should be encouraged to see a different culture from a different perspective and it has been stated that maintenance should be continued with an objective and sensitive approach [14, 30].

It is clear that the themes of cultural competence in the presentation of cultural competence health care cannot be considered independently of each other. Factors affecting cultural sensitivity such as empathy, mutual respect, and trust in the above expressions can be influenced by important components of cultural competence such as language differences, ethnicity, cultural understanding, education and professional skills. For this reason, professional healthcare providers should not forget that each person represents a culture, they must have adequate communication skills, and they should maintain their professional autonomy without breaking the ethnic and language differences, without breaking, judging and empathizing. The requirements of cultural sensitive care can only be achieved in this way [31, 32].

4.2.3. Language skills and communication difficulties

Language is the primary means of communicating cultural beliefs, values and norms. Language also expresses the cultural heritage of an individual and is a source of identity and pride. Accordingly, establishing and maintaining a professional therapeutic relationship depend on the ability of the practitioner to communicate effectively with the client and on language skills [30]. Language barriers play a crucial role in creating culture shock that culture shock has a number of negative consequences, such as discomfort, feelings of helplessness, frustration and depression [7]. When interactions with multicultural and multilingual individuals in health services are introduced, effective execution of verbal or non-verbal communication will enable the satisfaction of the quality of the service, the care and the caregiver.

One article has shown that the difficulties in communicating between the nurse and the patient create anxiety and uncertainty and reduce parental health satisfaction [20]. The common language of the majority population of studies examined was English.

"I was going to drop him off at 1.00 p.m. today because he doesn't eat at school, I want him to go just in the afternoons. "Because they don't eat the school meals… I send their lunches." In these expressions, a parent disabled child who does not speak English has wanted to send her child to the school only at certain times because she has not sure if he could eat lunch. These expressions make us think that language difficulties have created uncertainty and anxiety in this parent. On the other hand, the fluent English speaking of another parent allowed to communicate more easily with the child's school and provided easy management this process, increased individual satisfaction [5]. The study was conducted in Pakistan, but English language is a common language between parents and staff. It can be considered that the source of the problem there, basically, is that institution and staff cannot be effective in the native language of the present society. For this reason, the staff and the families are not able to express their mutual expectations sufficiently. As a result, adversely affected people by care are unfortunately children with special care needs.

Students who have experienced cultural competence in different continents have emphasized that they have experienced a more effective process and have received positive feedback when they have adapted to cultural differences and have overcome language difficulties. Expression of a Canadian student "*a 7-year-old female who came into the clinic upon referral from a community health doctor to help diagnose Asperger's syndrome through observed characteristics in the home. We communicated very effectively, even with the language barrier…hand gestures and simple Finnish words."* Or another participant *"If there is a language barrier, well you have to make sure the patients understands you. In that case you have no choice but to find an interpreter so the patient can receive and participate in his care"* have explained the importance of the language in the interaction [14, 28].

The workforce of the nurse in Saudi Arabia is largely composed of foreign nurses recruited from North America, South Africa, Europe, Asia, Australia, New Zealand and the Middle East. Hence, Almutairi et al. [7] also were stated in their study that many participants express the difficulty of communicating with nurses. Of course, the source of the problem is the language differences. In fact, in some cases, violent discussions take place between nurses and patients because words have different meanings in cultures:

"…in our language (Futa) it means bad word like prostitute, and this baba said "ateeni Futa" (which means towel)…[the nurse] was almost fighting"

In this study, the common language used in the hospital (English) is an intensified barrier as most of the participants are not the primary language. Many participants have tried to communicate with their patients using body language and signs [7]. But, it should not be forgotten that your gestures and mimics may not be acceptable in every culture. It can even be uncomfortable. In this case, being guilty can be inevitable. Difficult communication can lead to a lack of confidence in the care delivered to the patient. For this reason, the adaptation of the foreign staff of the health institution to the native language of that community should be included in their in-service training.

4.2.4. Ethical issues and uncertainty

Cultural interactions can create confusion at the cognitive level. Hence, in a study conducted by Almutairi et al. [7], participants found that there was a high level of uncertainty about which applications were acceptable during care practices in the Saudi culture. This usually prevented nursing care or continued to feel that the care was not clinically safe. Tavallali et al. [20] stated in his study that when parents experienced difficulty communicating with the nurse, they experienced anxiety and uncertainty, and that their satisfaction with health decreased.

In the study with students of Koskinen et al. [28], the ethical process was at the forefront. When students who encountered with different cultures, cross-continental were witness to the practices they were not familiar with from their culture, they have experienced dilemmas on their mistakes or their correctness. The ethical issues were mainly related to the discordance related to nursing care, stressful nursing-patient interaction, in-service inequality and the anxieties caused by sexual health practice. A student's expression "*....If every family doctor was a male, it was astonishing that there was a female nurse present in the room during the gynaecological examination. It is a good thing to secure women's sexual integrity but this sounds as overprotection…"* has revealed this dilemma. It has been described that intercultural ethical problems are due to nonsense in nursing care, stressful nurse-patient interaction, in-service inequality and worries arising from sexual health practice.

It should not be forgotten that no culture is superior to another. Of course, each society has its own ethical codes and values. Ethical principles and moral values can vary even among individuals within the same culture as intercultural. For this reason, cultural differences may set the stage for creating a dilemma on healthcare ethics. As a matter of fact, this dilemma emerges clearly in the exchange programs of the students from different cultures as mentioned above. The dilemma experienced by students may also bring about uncertainty in their future professional practice. In approaching ethical issues, the educational process can play an important role in overcoming cultural differences.

4.2.5. Nursing education, professional skills, and experiences

Whatever the area, professional knowledge and skill are quality indicators in providing efficient service. Service providers that are not adequately trained in their professional field or who do not train themselves in the field of knowledge and experience cannot protect the safe relationship between the individual receiving the service, the uncertainty comes in the person who receives the service. Because health care is a field of study where human life is an individual frontline, knowledge, skills and experience of health personnels is the basis of service. A customer who feels that you do not have enough equipment gives you less confidence, even if it is true, you will be doubtful about your suggestions and, is also a decrease in respect to the professional experience.

Along with being the main factor of migration in the world, multicultural care in health services has developed. The concept of intercultural nursing as it constitutes a crowded discipline of the health field emerges as a favorite concept in the presentation of health services. As Leininger notes, the intercultural nursing approach refers to the implementation of effective care, taking into account differences and similarities in cultural values, beliefs and practices in order to provide culturally correct, sensitive and adequate nursing care to people of different cultures [33]. To obtain positive health outcomes through the cross-cultural approach, of course, the nurses must have adequate knowledge, equipment and skills. In this process, nursing education should be regulated to include intercultural approach continuity of education should be ensured besides nurses' professional development of themselves. Soulé [6] emphasizes that traditional health education is still insufficient in acquiring cultural competence, studies showing the effects of health education should be done, systems/organizations should be structured in this direction.

In study of Tavallali et al. [20], nurses' ability to have information and sufficient information the primary factors for quality of health care services and parent's satisfaction. In this study conducted in Sweden, some of the participants stated that the vocational ability of foreign national nurses is better, and they serve with an individual approach. Participants stated that:

"I personally think that foreign nurses are talented and much warmer and personal." "I think they have an extra skill that makes them even better at what they do." One of the expectations of the Swedish parents was that they were given adequate and correct information. The important point here was, again, that language difficulties were beginning. Even though nurses had sufficient knowledge and skills, they could not demonstrate their abilities to be foreign to a different language. Hence, in the parents, the nurse had the feeling that the medical and nursing knowledge was inadequate. As a result, parents' confidence was diminishing and disappointing.

In conclusion, education, vocational skills and experience in providing cultural competence care will be useful for accurate collection of data from patients, effective interpretation of data based on cultural differences, prevention of medical errors, and reduction of health disparities.

5. Conclusion

Because competence is more closely related to how to overcome obstacles to better health care, cultural competence is more closely related to personal and social responsibility to others, and clinical cultures that take more responsibility should be developed. All professionals who sweat in the healthcare system can respond to the challenges of the increasingly diverse society, they can respond to increasingly diverse becoming cultural make.

Studies conducted to improve cultural competence-related care skills of health professionals, especially nurses, show missing part of the literature. The current study has several limitations.

First, only inclusion of English language publications into the study led to the exclusion of studies that might be useful in relation to the subject in other languages and cultures. Second, inclusion of only qualitative researches into the study has limited the generalizability of the results from study. Third, the original data are not available by the nature of qualitative studies, and it is only limited by the published format. In particular, one of the missing aspects of the nursing literature is absence of studies on the development of cultural competence-related care skills for only nurses.

As a result, together with the data obtained from this study, we can say that health professionals and institutions that play a key role in maintaining the highest level of care must respect the cultural values of individuals with different cultural health needs and that cultural traditions of the community must be aware of and that cultural heritage must be identified as a primary goal of attaining cultural competence.

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Chapter 5

Limits and Possibilities to Combine Quantitative and Qualitative Approaches

Maria Cecília de Souza Minayo

Additional information is available at the end of the chapter

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Abstract

This essay analyzes the main characteristics of quantitative and qualitative approaches to empirical social and human research, showing the extent to which they leverage each other, the advantages of their shared use and the limitations of this relationship. This theoretical and practical work discusses the principles of each strategy and its possible cooperation, proposing, in a didactic way, this gathering. It builds on more than 20 years research experience of the author, who, jointly with her group, has combined these approaches. This text concerns only empirical research, and, due to the limited space, focuses only on some classic authors and references with their seminal theories. It is organized as follows: (1) analysis of the different rationales of quantitative and qualitative approaches, (2) principles supporting cooperation between them, (3) prerequisites for articulation, and (4) proposed operationalization of such cooperation.

Keywords: qualitative approach, quantitative approach, social sciences, humanities, epistemology

1. Introduction

This essay discusses the epistemological and practical issues of the relationships between qualitative and quantitative approaches, that is, one of the methods used to close in on social reality. It proposes a pathway of possibilities in which the two terms can meet, overcoming dichotomies and, from a quantitative standpoint, the milestones of positivism, as well as, from a qualitative viewpoint, the restrictions on the magnitude of phenomena and social processes. This is not a simple task [1], neither in theory nor in practice, and this text shall address both the limits and the reasons for overcoming them.

From the point of view of understanding or explaining social phenomena, there is no doubt that the choice of one or the other term is not only an act of will of the researcher. A good theoretical-methodological perspective will always be one that allows the proper construction of information and helps us to reflect on reality and to theorize it intelligibly and comparably with the already consolidated body of knowledge on the subject at hand. Therefore, we understand that quantitative and qualitative approaches must be both valued and relativized. For it is only when used within the limits of their possibilities that they can make an effective contribution to the development of theories and the collection of hypotheses.

The articulation between quantitative versus qualitative must be understood as a research dynamic that integrates the explanation of a certain phenomenon [2] and its comprehension [3], thus, joining two philosophically different and opposing rationales. *Explaining and understanding* are the focus of objective and subjective integration of research processes that, on the one hand, address the magnitude of study objects and, on the other hand, the subjectivity of social stakeholders in their establishment [4, 5].

The ethics underlying this dialogical opposition of terms draw on the principles of communicative philosophy [6], since a work that shows the magnitude of a problem to interlocutors, calls them to express their opinions, beliefs and attitudes towards it. This turns them into participants in the information generated and proposals for social change, usually found in social sciences and humanities studies, albeit at the local or micro-social level.

When talking about collaboration between quantitative and qualitative approaches, the central theme is the method, that is, the "how to," while the practice of research is always embedded by theory, either relative to the object of study—what should be handled in a specific way and is not the object of this reflection—or to the very research work. It is therefore important, before dealing with this activity, to briefly analyze what distinguishes them.

This text is organized as follows: (1) analysis of the different rationales of quantitative and qualitative approaches, (2) principles supporting cooperation between them, (3) prerequisites for articulation, and (4) proposed operationalization of such cooperation.

2. Opposition between quantitative and qualitative

The differences between quantitative and qualitative in social and human research are not only level-related, as often some researchers would want us to believe, but also of scientific nature and conception. Therefore, before discussing the possible articulations, we believe it is fundamental to describe, although briefly, the specificities of each term. Due to space constraints, we will address empirical approaches in modern science [7], with emphasis on their classical representatives, even knowing that they date back to ancient times. For example, in the first case, the fantastic knowledge built by the astronomers of Babylon and ancient Egypt is well known, not only including prolonged and accurate observation of events but also the ability to distinguish patterns of change. From then on, scientists back then created a sufficiently precise timetable, allowing the development of activities that, in modern times, are the core of agricultural economy. From a qualitative viewpoint, when Socrates (469–399 B.C.) shows up at the squares, he makes ethical and humanistic reflection the core of the philosophical way of being and living, turning to the inner human being, and seeking in it the "essence of truth" (*aletheia*), which inhabits each soul (*psyche*), using as a method the dialectic of the "discourse of confrontation" of opposites (*aporia*) through systematic questioning.

The quantitative: Historically, quantitative approaches in modern science are associated with the positivist philosophy that, to this day, maintains the intellectual ascendancy in the academic field. Its roots go back to the so-called Century of Lights. The father of philosophical positivism is Condorcet [8], an encyclopedist who, in the second half of the eighteenth century, formulated in clear and precise fashion the idea that the science of society should be social mathematics based on thorough, objective, and probabilistic quantitative studies. In the nineteenth century, this way of looking at reality was updated by Comte [9] and by Durkheim [2]. The latter is considered a seminal author, since he applied the same principles to what he called "sociological positivism" and declared to have created a science that he labeled "sociology," with a strategy for its development, namely, "*The rules of the sociological method*."

Challenging the spirit of his time marked by political power and Catholic religious interpretation of human events, Durkheim categorically insisted that the causes of social facts should be pursued in other social facts, not in theology or individual behavior. Calling (pre)judgments, (pre)conceptions, (pre)notions against common sense and lay opinions on social reality, Durkheim re-asserted, in all his works, the theoretical principles of positivist sociology: the existence of social coercion which is reaffirmed in the institutions and their functioning; the idea that reality manifests itself in social facts that can be recognized by its regularity, frequency, and collective and objective manifestations; and the conception that there is an objective reality capable of knowledge different from the phenomena that relate to beliefs, values, and emotions that should be excluded from science.

The history of positivism reveals that, from the viewpoint of research, the conception of objectivity is confused with the execution of quantitative, mathematical-based studies that are neutral and free from value judgment and socio-political implications. Under this perspective, we can assume that the social scientist must behave in such a way that nothing can harm his neutrality in explaining the phenomena at hand, always external to him. Following the same path, methods and techniques of statistical research proliferate more than ever, reproducing not only a scientific conception, but certainly, a doctrine that builds on ideas developed in the eighteenth century, consolidated by Modern science from the late nineteenth century and refined to the present day.

While sociological positivism continues to rule social and human sciences, it is subject to several criticisms by other currents of thought but also by many who profess it [1]. The strongest constraint comes from comprehensive theories [3, 10–12], for which human beings are not mere form, size, and movement: they have an inner life (thoughts, feelings, beliefs, and values) and relationships that escape quantitative methods. In the same vein, the issue of neutrality, objectivity, and exteriority of the social scientist in relation to his object of study is being criticized. Epistemologists consider these subjects as being epistemologically incorrect in the way positivists address them, because they do not take into account the fact that everything that is human crosses subjectivity and is found in any investigation of any discipline. The permanent search for new knowledge stresses, more than the objective truth of science, its approximate character [13].

Internally to those using quantitative approaches, there are also criticisms about limiting the different methods and techniques they use. Some authors [14–17] point out that the more complex an investigated phenomenon, the greater the effort to achieve adequate quantification. In part, because some activities are inherently difficult to measure and quantify, and partly because, to this day, overly complicated mathematical descriptions are extremely intractable and of little practical value.

On the one hand, an accurate description of all known facts, for example, on the evolution of a species, may prevent any useful mathematical representation, but on the other hand, an oversimplification of the mathematical framework used to address a complex problem could be very fruitless, because many relevant facts would have to be omitted. "This is one of the dilemmas found in modern quantitative work as a whole, not limited to, therefore, to social research." (p. 242)[18].

The qualitative: In contrast to positivism, qualitative approaches work with values, representations, beliefs, attitudes, relationships, behaviors, and practices. They deem that social sciences should understand the socially experienced human reality. In their different modalities as in sociological phenomenology [3], ethnomethodology [19], symbolic interactionism [20, 21], oral history [22] and others, *meaning* is the central concept and *understanding* the main verb. Comprehensive sociology proposes subjectivity as the founder of meaning and advocates that it is part of social relationships, which are the essence and result of human creative, affective, and rational activity. The universe of qualitative research is the daily routine and experiences of the common sense, interpreted and reinterpreted by the subjects who experience them, which is strongly opposed to the positivist sociology that considers such manifestations as "(pre)conceptions."

In the introduction to his book "Sciences of the Spirit," Dilthey [23] argues with positivism, stating that human facts are not susceptible of quantification and objectification because each of them has its own sense and peculiar identity, requiring a specific and concrete understanding. Hence, in his perspective, the sociological theories and philosophy of history that see in the description of the unique a mere raw material for later abstractions [23] are false: "*there is no last word in history that contains the true meaning*" (p .25).

In social sciences, Max Weber [10] first established the theoretical-methodological bases of comprehensive sociology, which is geared to the understanding and interpretation of social action, so defined [10]: "*Action is social when, by virtue of the subjective meaning attributed to it by individuals, it takes into account the behavior of others and is guided by them in its realization*" (p.33). Therefore [10], "*seizing the relationship of human action meaning*" (p. 32) is the central task of social sciences and humanities, since society is the result of an interrelationship in which the actions of some are reciprocally oriented toward the actions of others.

In his theoretical clash with positivism, Weber [10] recognizes that values play a prominent role in selecting the object, in choosing the research problem and in the questions asked by the researcher. However, it is incumbent on him to seek ways of ensuring the maximum possible exemption from ideological intrusion in his studies, by the correct use of methods, techniques, and construction of mediating, adequate, and peculiar concepts, in order to increasingly approach the concrete characteristics of historical events and interactions. Assuming that human history consists of "unique constellations" and concrete cases, Weber [10] proposes the elaboration of concrete-historical concepts that make phenomena intelligible and allow them to be sorted and to indicate their articulations and their meaning. His search for "objectivity**"** coincides with what Minayo [24] calls "objectification", that is, the systematic work that seeks to ensure theoretical foundations and universal standards already tested in qualitative approaches, respecting the specificity of the object of study.

Comprehensive sociology requires: (a) conducting empirical research that may contribute to confirm or build new theoretical formulations; (b) collecting data from the way of life of social stakeholders, their environments, their relationships and meanings they assign to them; (c) understanding social stakeholders as people that can describe, explain, and justify their actions, motivated by traditional causes, affective feelings or rational motives; and (d) considering language, practices, relationships, and events as inseparable elements of reality to be studied [25]. According to Weber [10]:

> *"There is no analysis of the absolutely objective culture of social phenomena, independent of special and partial views, according to which, explicitly or tactically, consciously or subconsciously they are selected and organized for expository purposes. All knowledge of cultural reality, as can be seen, is always knowledge from specific viewpoints" [10], (p. 72).*

In his reflections, Weber [10] opens space for the articulation of the quantitative and qualitative. He emphasizes that historical singularities are the result of specific combinations of general factors that, if isolated, are quantifiable. But the numerical form of its presentation must be associated with the vision of other elements that provide peculiar arrangements, since everything that is affirmed of a concrete action, its levels of adequacy, meaning, and its comprehensive or causal explanation are hypotheses susceptible of verification, therefore, of scientific approach.

As quantitative studies, qualitative approaches are limited, since they do not fit into large research universes. Their space is much more that of further analysis of the meaning of actions and much less the explanation of the magnitude of the phenomena. There are also problems in the generalization of findings—which must be addressed differently than in quantitative studies [26, 27] and the articulation between theory and empiricism. In practice, they are frequent atomized analyzes of processes and social groups, as if these phenomena constituted totalities reduced to themselves. Furthermore, many empirical works lack further analysis, criticism and contextualization of the historical, cultural and structural problems that always involve any topical event. Focusing on the phenomena, surrounding them as if it was possible to analyze them within themselves is reductionist, since it does not know that there is always a material basis for the symbolic universe and the one who speaks about a certain subject is socially, historically, and culturally located. The art is to find in data and not outside of them what makes any local problem part of universal issues: its rooting in the world and its transforming possibilities [26, 28].

From the reflection so far referred, we can infer that there are limitations and potentialities in both quantitative and qualitative approaches [1]. Considering the paths of their possible integration is the next step of this text that shows theoretical and practical arguments.

3. Cooperation between quantitative and qualitative

From the methodological point of view, the term traditionally used to show the contribution of qualitative and quantitative methods is "triangulation" a denomination established by Denzin [11] to refer to the use of multiple techniques and different approaches.

Authors such as Denzin and et al. [11, 18, 29–31] have technically studied methodological triangulation, showing that their principles resound within a long tradition of social sciences. Samaja [30], for example, in his paper, *Metodología y Dialéctica del Trabajo Interdisciplinario* (free translation: Methodology and Dialectics of Interdisciplinary Work) demonstrates that integration occurs for practical reasons, especially when it comes to processing and analysing data produced through different tools and from the perspective of different disciplines. However, this author emphasizes that search for integration happens also for epistemological reasons, as there is an effort to try to overcome the dichotomies between quantitative and qualitative, between disciplinary and interdisciplinary approaches and between objectivism and subjectivism. Samaja [30] goes on to say that, whether explicitly or implicitly, the research process has always used concepts and notions of both the so-called positivist and comprehensive-based theories, even without realizing it, without, therefore, an epistemological barrier as definitive as one often hears in advocating one or another method.

Jick [29] finds a universal value in methodological triangulation, when he argues that each method alone does not have enough elements to answer the questions that a specific social investigation elicits. Denzin [12] emphasizes the methodological contribution as a tool for lighting reality from various angles. This author shows that this practice provides greater theoretical clarity and allows further study of an interdisciplinary discussion in an interactive and intersubjective way.

One of the most important reflections on triangulation is found in some of Kant's ideas [32], developed in the "*System of All Principles of Pure Understanding*" in [30] "*Transcendental Mathematics*" that is part of his work "*Critique of Pure Reason*." Kant [32] says that the understanding of reality builds on four basic principles: in the axioms of intuition; in anticipation of perception; in the analogies of experience; and in the postulates of empirical thought in general. The two initial principles are defined in this text. The first is based on the fact that intuitions are extensive quantities in time and space, which can only be apprehended by the composition of multiple homogeneous and by the consciousness of the synthetic unity of the manifold. The phenomena, according to Kant, are extensive quantities represented by homogeneous and successive parts that form a whole.

The second principle refers to the existence of an intensive quantity that occurs in the perception of the phenomena. Kant [32] argues that this perception is the simultaneous empirical consciousness of intuition and sensation. It is the understanding that phenomenal objects are not only extensive quantities from which one has an external view. On the contrary, they also contain a subjective representation. Put in another way, the subject is affected and experiences existentially the phenomenon that he lives: this constitutes a unity of the system of understanding. Therefore, the phenomenon, on the one hand, has a quantitative extensiveness, but on the other hand, carries a singularity that is formed by the infinite sequence of increasingly smaller degrees (from one to zero).

Kant [32] points out that "*the possibility of experience is offered by objective reality to all our a priori knowledge*" (p. 115). In turn, experience builds itself up in the synthetic unity of phenomena, in the synthesis of the two concepts (extensiveness and intensiveness), without which action would not turn into knowledge. Thus, concrete action underlies universal principles and rules concerning *unity in the synthesis* of phenomena, whose objective reality can be shown by experience [32]: "*it is in the object itself that the synthetic unity of concepts reveals an objective reality*" (p. 116).

That is, there are different degrees of living an experience, since it contains simultaneously both extensive quantities and intensive amounts. Kant [32] called the intensive amount of "*quality*" of the sensations, pointing out that the experience of this quality is always empirical and, therefore, cannot in any way be shown *a priori*. In quantities, we can only recognize one quality *a priori*: its continuity. In quality, there is only one extensive quantity: its degree of uniqueness that can only be measured from one to zero: [32] "*I will call mathematicians, to the two preceding principles, both of which are constitutive of the same phenomenon*" (p. 123).

The philosophical ideas of Kant [32] are fundamental for the search of integration between the quantitative and qualitative studies that combine approaches of the magnitude of the phenomena and their understanding. This reflective process points to the overcoming of pure objectivism, due to the wealth of knowledge that can be added to the valuing of interaction, intersubjectivity, meaning and intentionality always found in any human and social phenomena. A dialectic attitude leads to an understanding that subjective data (meanings, intentionality, interaction, intersubjectivity, and participation) and objective data (indicators, frequency distribution, and others) are interdependent. Such a view allows us to break down and dissolve several dichotomies that are held as truths, enabling the enriching combination of quantitative information and views that social stakeholders have about them (quantitative versus qualitative) between the magnitude of the phenomena with their variables—which are nothing more than some qualitative attributes that accompany them—and their conception located in some specific topic; between the external observer typical of quantitative studies and the coexistence and interlocution that are established in field experiences and are not a bias to be avoided, but a *sine qua non* of qualitative approaches. Finally, the false dilemma between subject and object is dissolved when any social or humanistic study—whether quantitative or qualitative—is based on intersubjective knowledge, since the object with which one works is also subject and already brings to the setting of research an interpreted reality [3, 33, 34].

4. Prerequisites for quantitative-qualitative integration

The articulation of quantitative and qualitative approaches relies on two essential conditions. The first is practical. It consists of the existence of a team composed of professionals from the areas who are willing to work cooperatively. While some researchers are able to make a theoretical and methodological crossover about an object from several angles, this practice shows that people specialize in certain disciplines and methods. Addressing them cooperatively will require a dialogue between themselves that involves the rationale and concepts of each area and the ways of operationalizing them. Therefore, methodological triangulation's work relies on people emotionally and mentally willing to dialogue and experimentation of possibilities that snatch them from the nest of their unidisciplinary comfort.

The complementarity between different methods and disciplines is a specific intellectual movement required for the study of an empirical object. As Kant [32] points out, the *object is the third term*, before which the quantitative and qualitative approach will produce the synthetic unity of the manifold and the unique. Further reflections around the object allow us to understand it and to explain it simultaneously in its multiple dimensions.

Thus, the research team—with people working with quantitative and qualitative methods—in a dialogical effort should participate in all phases of research, from conception to presentation of results. The success of group work of "different" people requires the ability to discuss, differentiate, and relate fragments of theories, concepts, notions, and methods that broaden and further analyze the understanding of reality. The result of this process is the overcoming of the *a priori* hierarchy, of the hegemony of one scientific field over the other, by means of a cooperative and dialectical vision among them [35].

The second condition for the success of a work combining the quantitative and the qualitative approach is, paradoxically, the disciplinary competence of each component of the group. The disciplinary safety enables the theoretical-methodological further analysis of the object, since inexperienced or ill-educated people who come together interdisciplinarily do not produce a quality work. It is necessary to be clear that dialogue between disciplines is a reflexive, dialogical and critical work on specific concepts that can counteract and enrich the understanding of the object, because, at the same time, we work on the dialectic of integration of opposites and the distinction between them. For when they come together, the theoretical-methodological specificities do not dissolve. They continue to exist, dealing with questions that require one or another approach, as shown by Kant's transcendental mathematics [32]; studies by Minayo and Sanchez [18]; Minayo [24]; Samaja [30]; Minayo et al. [31]. Regarding the relationships between disciplines and methods, Samaja [30] warns that their combination is always unequal; in practice, one discipline prevails over another. This asymmetric power tends to have different reasons ranging from (1) historical reasons that demonstrate greater scientific consolidation of a given discipline in relation to the other; (2) greater experience of some researchers in a given area in relation to the topic at hand; and (3) the intended objectives of a given study, which may be to produce information of magnitude on the problem when qualitative knowledge has a supporting role; or vice versa, when the scope is to show the stakeholders' views on a given issue, their population size, for example, is treated as contextualization.

For successful articulation between opposites, which takes place in the concomitant distinction and integration between theories and methods and in the dialogue between specialists of diverse disciplines, researchers working on such approaches need to take into account some increasingly consensual findings in social sciences and humanities: the complex causality of phenomena, which opposes the view of linearity and unidisciplinarity; the relationships between specificity and concreteness of the object and their implications for history and the wider context [26]; the fact that there is always room for unpredictability, creativity, and re-elaboration, even in a well-delineated and constructed object, and, consequently, the awareness that even the most perfect integration between quantitative and qualitative approaches has boundaries, contradictions and is a work in progress. From the researcher's standpoint, it is essential to take into account that the role of the external and rational observer must be complemented by the role of investigator-interlocutor who has empathy and emotion to interview people be with them in the field and understand their dramas that are expressed not in scientific concepts, but in common sense, experiences, perceptions, and actions.

5. Practical steps for quantitative-qualitative cooperation

From a practical point of view, the combination of quantitative and qualitative approaches is a cooperative staged activity. An instructional proposal to unfold them in seven steps is made as follows: (1) formulating the main object or question that will guide the entire research process; (2) choosing key theoretical and operational concepts; (3) choosing the reference bibliography and other sources of information, studying further the theoretical framework and formulating hypotheses or assumptions; (4) building tools for the collection of information and preparation for empirical work; (5) organizing and conducting fieldwork; (6) analysing information obtained; and (7) preparing the final research report.

1. For the formulation of the main research object or question, practitioners from the various disciplines must come together. Together, they also build the work's general and specific objectives, the schedule of activities, the administrative adjustments, and methods to resolve conflicts and theoretical and practical problems that will always arise. In this stage of definitions, decisions regarding work distribution, the coordination that needs to include people from both approaches, the administrative processes, a schedule of tasks to be performed and meetings are made. It is also recommended that, from the outset, an executive body be established that, together with the coordination of the research, solves operational and logistical issues throughout the research process, particularly, those related to fieldwork. Its function is to manage work schedules and agendas of researchers and all social stakeholders involved, scheduling meetings, interviews, focal groups, application of questionnaires, availability of material, spaces, administrative authorizations, and respect for the ethical standards for research with human beings.
2. This second step should also occur by means of joint reflections. Operationally, the study coordination team can anticipate the collective meeting, drawing up a proposal and opening a wide-ranging discussion on it. It is time to select main concepts and notions that will be the goals for the construction of empirical knowledge. Nominating concepts and

notions and clarifying them allows for an interdisciplinary and even transdisciplinary articulation, as they will become theoretical units constructed collectively and from various viewpoints. The alignment of theoretical and practical devices is not an easy task, since the same terms may refer to different things in different disciplines. Therefore, it is time to clarify some fundamental points for the dialogue between quantitative and qualitative researchers: how an area defines a given term, how it can be appropriated by the other and what mutual enrichment this appropriation would bring; what are the concepts that cross the areas; and what are the constraints to a given field that must be respected and applied in only one of the approaches, focusing on the central question of research. This process is an essential part of mediation between the main question and research tools. The place of operative concepts corresponds to what Kant [32] called in his "*Transcendental Mathematics*" (p. 123), "*synthesis between thought and reality*," or what Samaja [30] refers to as "representation of a procedure" (p. 166). According to this last author, every scientific data link a concept to what is actually happening through the execution of a procedure applied to one or more observational or interactional dimensions in the field. Two observations are important here: it is not the disciplines in their totality that are discussed, but disciplinary fragments that fit the theorization of the object, on the one hand. On the other hand, we must recognize that articulation between them is a pathway of possibilities but not always a possible operation.

3. The third step occurs through task distribution among all team members who must always interact with each other. It is the analysis and further study of various sources of information: review of national and international papers, possibly existing books and documents, including those dealing with historical aspects, focusing on the terms selected in the second stage of the work; reports, pictures, and other materials about the group or issue under study. Investing in existing knowledge is a fundamental step in making the object a scientific construct. In the case of exploratory investigations, where there are no studies on the subject at hand, it is necessary to refer the object with sources that approach it and can help to understand it better. We understand that in the first and second steps, the object was only mentioned, but not scrutinized, since its definition does not lie in the question itself, but in its clarification and contextualization through theorizing. That is what makes it a scientific fact. Once the sources have been analyzed, researchers must formally meet and agree on the theoretical framework to be used, working on the consensus regarding the concepts, categories, and notions already studied from bibliography. This is also the time to establish, collectively, the hypotheses or assumptions that will guide the investigation and which already existed as intuition in the initial inquiries.

4. The fourth step addresses the definition and elaboration of research tools as a technical task. Teams organize themselves in a disciplinary way in their construction, since the logic of a questionnaire and of a qualitative script and the criteria of sampling in each of the approaches are entirely different, as pointed out in the theoretical part of this text. Quantitative tools and techniques point to the magnitude of the problem. The qualitative ones are appropriate to scrutinize history, to understand the relational dynamics, the representations, the symbols and the evasive elements of social life that cannot be contained in formal means. This time of separation of research subgroups does not prevent permanent communication

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between quantitative and qualitative researchers. We wish to emphasize that there are moments in which total gathering is indispensable, and there are others in which separation by specificity and peculiarity of methods in the process of integration must prevail. However, once the research tools are outlined, the group must again work collectively, with a view to socializing, criticizing, and adapting them. At this point, knowledge and inquiries from side to side are shared, criticized, improved, and mutually enriched.

5. The fifth stage refers to the empirical work and its operationalization, requiring adequate training both for the application of quantitative and qualitative tools. The process of empirical investigation is a very delicate action, because when not properly informed, many interlocutors may feel judged and confronted with questions or conversations. Those who master the technique must perform the implementation of questionnaires (main quantitative device). Interview scripts, field observations, focal groups, and other approaches also require specific skills. It is important that, in both cases, field researchers have knowledge and mastery of the whole research proposal, as if their success depended only on them. Briefly, experience shows that conducting an interdisciplinary research and combining methods requires: (1) adequate management that favors the proper use of time and relationships with people involved in the work, through executive coordination; (2) field investigators cannot be mere executors. On the contrary, it is fundamental that they understand research and its theoretical and practical purposes. That is why they have to be trained so that they have an adequate relationship with people, to observe the environment and to apply tools. Qualitative approaches, for example, require researchers with experience, training, empathy, sensitivity, and the ability to mediate conflicts.

6. Following the empirical work, it is time to sort, classify, and analyze the data. At this stage, two distinct moments emerge. First, researchers split quantitative and qualitative information to produce an initial report on field results. From the quantitative standpoint, researchers work according to the design and the models used and begin to tabulate, type, categorize, produce simple statistics, and cross-link, gradually achieving a more refined analysis of empirical data. They follow well-established rules that accompany the work from its initial stage, when the first tests are conducted to safeguard the standardization of information. The same is true of qualitative data. Researchers begin to sort and classify the different modalities of empirical material such as interviews, discussion groups, observation notes, historical, and institutional information collected in the field. In a dynamic that goes from the reading of the different data, they create analytical and empirical categories, establishing the understanding bases of the reflexive unit that is the object of study. Then, researchers from both approaches work together to match the results and promote the drafting of a single document in which the findings of some interfertilize the findings of others. The search for dialogue in this stage of work aims at the construction of a single report reflecting the possibilities of quantitative-qualitative articulation rather than the presentation of juxtaposed information. In doing so, the differences do not cancel out; they contribute to evidence and further analyze the understanding of a certain object. Experience shows that quantitative data are sometimes the best evidence of certain aspects of the object, but in others, qualitative information helps to understand more clearly certain social processes that numbers conceal.

7. The preparation of the final report deserves special attention. In short, it should contain the object of study; the goals; a theoretical synthesis of the concepts and notions that theoretically structured the work and the analyzes; the respective approach methodologies; the contextualization of the object; the description of the various processes studied from the perspective of stakeholders, heard in both research strategies, and a synthesis containing [36] "the designed concrete" (p. 35) in the form of results and conclusions. From the perspective of a combination of quantitative and qualitative methods, the report is not and will never be a sum of disciplinary results, but rather the construction of a collective research. Research may contain chapters that are historical, others of a statistical nature and others yet that emphasize the meanings of actions, but each is enlightened and interfertilized by the contribution of others.

6. Conclusions

In this text, we tried to evidence that it is possible to combine quantitative and qualitative approaches without making this process a panacea or disrespecting the theoretical-methodological distinctions of each one. As was said initially, particularly, the practical proposals were formulated from the experience of the researcher who signs this paper and her working group. The text reinforces the conviction that in order to make important advances in the interdisciplinary, methodological and technical combination, a team of researchers must accept the challenge of cooperative work. From a theoretical-practical perspective, the success of this process lies in three opposing and complementary positions: (1) a deep respect for the disciplinary fields; (2) the ability to perceive and relativize the individual fragmented visions; and (3) the researchers' dialogical capacity before theoretical and methodological proposals that confront their usual research routines.

This triangulation of perspectives also contributes to the enrichment of theories, analyzes, and publications of the original field of knowledge of each researcher. That is, once a research is performed by a combination of methods, a researcher can and must publish papers and other forms of scientific communication whose background is marked by collaborative activity. However, experience shows that the so-called "disciplinary" scientific production resulting from the effort to share an interdisciplinary and methodologically collaborative reflection will never be equal to the result of the monological effort of the individual and solitary researcher. In the proposed collaboration between areas, methods and techniques, everyone receives the influx of knowledge interfertilization that, to a certain extent, breaks down epistemological, theoretical, and practical barriers.

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