

## THE IMPORTANCE OF THE SERVQUAL METHOD IN THE MANAGEMENT PROCESS OF AN ECOLOGICAL ENTERPRISE IN THE ASPECT OF THE COVID-19 PANDEMIC

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**Purpose:** The aim of the publication was to determine the significance of the Servqual method in the management process of an ecological enterprise in the aspect of Covid-19 pandemic.

**Design/methodology/approach:** The research was carried out in specialist stores with organic food using the mystery shopper method from July to September 2021. The scope of the research was nationwide.

**Findings:** The calculated indicators of Servqual unweighted (SQnw) and weighted (SQww) show that the fully satisfactory condition was achieved for the customer.

**Research limitations/implications:** Another important piece of information, which was obtained during the research, is that there is a large rotation of specialist organic stores and a problem with creating the database.

**Practical implications:** The worst ranked, although positively assessed dimension, was "reacting", and after taking into account the weight of dimensions – "empathy. These are the areas that can be further improved by entrepreneurs.

**Originality/value:** The market of organic products in Poland is undergoing dynamic transformations in the era of the Covid 19 pandemic and the electronic economy of the 21st century. New participants enter the market and put traditional, specialist organic food stores, under increased pressure from competition. Hence, there is an even greater need to improve the services they provide through the use of modern methods and quality tools. In relation to the ecological industry, there are no scientific reports on use the Servqual method.

**Keywords:** Management, Organic Food, Specialty Shops, Servqual Method, Customer service.

**Category of the paper:** Research paper.

### 1. Introduction

The market of ecological products in Poland is undergoing dynamic transformations in the era of the pandemic and electronic economy. With more and more market entrants, specialist organic food stores can experience increased competitive pressure. Hence, there is an even greater need to take care of the high-quality assortment offered to customer (Szczepanek, Prus,

Knapowski, 2018) and improve the services by using modern methods and quality tools. One such method is the Servqual method. This method allows the measurement of service quality by means of scoring and identification of strengths and weaknesses in the process of providing the service (Michalska-Ćwiek, 2015). Although it is used as a method, as indicated by both national publications (Woźniak, Zimon, 2016; Gontarczyk, Kijek, Zelkowski, 2017; Mazur et al., 2017; Midor, 2017; Nieżurawski, Sobków, Michalak, 2017; Stajniak, Konecka, Szopik-Depczyńska, 2017; Woźniak, 2017; Jakubowski, Królczyk, 2018; Przybytniowski, 2018a; 2018b; Dudek-Burlikowska, 2019; Gajewska, 2019; Kowalik, Klimecka-Tatar, 2019; Majchrzak, 2019; Rodzeń, Stoma 2019; Wrukowska, 2019; Strumiłło, Jagodzińska, 2020), and foreign publications (Cardona et al., 2018; Pekkaya, Öznur, Pulat, İmamoğlu, Koca, 2019; Behdioğlu, Acar, Arda, Burhan, 2019; Nguyen, 2021) in relation to the ecological industry, there are no scientific reports on its use.

The aim of the publication was to determine the significance of the Servqual method in the management process of an ecological enterprise in the aspect of Covid-19 pandemic.

## 2. Servqual Method

The Servqual method was developed in the 1980s by a team of American researchers: A. Parasurama, V. Zeithaml and L. Berry. It can be used to objectively test the quality of all types of services (Stoma, 2015).

The formula for calculating the Servqual index is as follows:

$$S = P - O$$

where: S – the result of the Servqual method,

P – customer perception of the service,

O – customer expectations from the service, whereby:

$P = O$  – desired condition: customers are fully satisfied with the service,

$P > O$  – perfect condition: customer perception of the service significantly goes beyond their expectations,

$P < O$  – conditional state: customer expectations for the service have not been fully met.

The authors of the Servqual method have identified five areas of quality (Parasuraman, Zeithaml, Berry 1988; Trawnicka, 1997; Stasiak-Betlejewska, Borkowski, 2010):

1. materiality – the external appearance of the facility, equipment and staff appearance,
2. reliability – the ability to perform services reliably and accurately,
3. responsiveness – desire to assist customers and ensure prompt service,
4. certainty – having the required skills and knowledge necessary to perform the service,
5. empathy – paying attention, feeling the client's needs.

### 3. Material and methods of research

The survey was carried out in several steps. In the first step, the literature on the subject was reviewed. Basic concepts were explained. In the next phase of the research, the sampling frame was prepared. A list of service companies was created, numbered and entities were selected basing on the generated random numbers in Excel (function rand). Simple random selection was used in the research. The sample size was determined basing on the sample size calculator. While compiling the list, the Panorama Firm enterprise catalog was used. A total of 376 points were separated according to the slogan of organic food stores. In selected stores, the research was carried out using the mystery shopper method from July to September 2021. A telephone interview was used. The choice of such a method of conducting research was dictated by the current pandemic situation and the reduction of research costs. This method is used for this type of research (Mazurkiewicz-Pizło, Pizło, 2018). During the survey, a measuring instrument was also prepared - an interview scenario - verified in the pilot studies. The focus was put on selected aspects enabling assessment of the quality of customer service in terms of information provided by the employee of a specialist store based on the adaptation of the Servqual method. The survey took into account four of the five dimensions used in this method, i.e. reliability, responsiveness, confidence, empathy. In total, 12 selected elements were assessed, three for each area. The area defined as materiality was neglected due to the nature of the research and the inability to assess this element. The analysis of the obtained results was based on the methods of descriptive statistics. Out of the group of 376 generated stores, those that were nationwide chain stores were rejected due to the fact that such entities operate in a different way. The remaining group of 300 stores became the basis for a draw. In the course of the research, 168 randomly selected organic food shops were contacted. Unfortunately, it turned out that some of them had already changed their profile or stopped trading in organic food. In some cases, it was not possible to contact the stores. Therefore, the presented results concern only forty-four points of sale. However, the interviews provided additional information on the reasons why some specialist stores had been closed, what was the impact of the pandemic on organic food store functioning and what changes were planned in the quality of services provided, as well as how the information included in enterprise databases was used by customers.

## 4. Results

Own research was carried out in specialist organic food stores. The interview was conducted over the phone (mystery shopper). Thanks to this form of communication, the information service on sales provided in stores was assessed.

The table below presents the four dimensions of quality, along with the adopted statements in the scenario.

**Table 1.**  
*Dimensions of service quality*

Dimension	Questions/Statements
Reliability	<ol style="list-style-type: none"> <li>1. Accuracy of information</li> <li>2. Reliability of information</li> <li>3. Connection quality</li> </ol>
Responsiveness	<ol style="list-style-type: none"> <li>1. Answering the phone</li> <li>2. Time of waiting for connection</li> <li>3. Speed of response to questions</li> </ol>
Certainty	<ol style="list-style-type: none"> <li>1. Competence of personnel</li> <li>2. Courtesy and friendliness of the staff</li> <li>3. A trustworthy manner of conversation</li> </ol>
Empathy	<ol style="list-style-type: none"> <li>1. Individual approach to the client</li> <li>2. Full attention to the customer</li> <li>3. Identification of customer needs</li> </ol>

Source: own research.

The obtained research results are summarized in the Sevqual sheet. It can be observed that most of the assessed elements obtained a positive assessment (Table 2).

**Table 2.**  
*Servqual sheet*

No	The quality dimension	Questions/Statements	Customer expectations	Customer observations	Arithmetic difference
1	Reliability	Accuracy of information	4.0	4.75	0.75
2		Reliability of information	4.0	4.70	0.70
3		Connection quality	4.0	4.89	0.89
4	Responsiveness	Answering the phone	5.0	4.91	-0.09
5		Time of waiting for connection	4.0	4.86	0.86
6		Speed of response to questions	4.0	4.77	0.77
7	Certainty	Competence of personnel	4.0	4.66	0.66
8		Courtesy and friendliness of the staff	4.0	4.77	0.77
9		A trustworthy manner of conversation	4.0	4.77	0.77
10	Empathy	Individual approach to the client	4.0	4.77	0.77
11		Full attention to the customer	4.0	4.68	0.68
12		Identification of customer needs	4.0	4.70	0.70

Source: own research.

In the next stage of the research, the qualitative features were ordered from the worst to the best (Table 3). The weakest element was "Answering the phone", where the assessment was negative, though close to zero, still consistent with the right standard of service quality. The remaining features of quality meet the expectations of customers regarding the service provided, although there are some differences that may be an indication for optimization of work.

**Table 3.**  
*Quality features of the examined service*

The quality dimension	Questions/Statements	Arithmetic difference
Responsiveness	Answering the phone	-0,09
Certainty	Competence of personnel	0,66
Empathy	Full attention to the customer	0,68
Reliability	Reliability of information	0,70
Empathy	Identification of customer needs	0,70
Reliability	Accuracy of information	0,75
Responsiveness	Speed of response to questions	0,77
Certainty	Courtesy and friendliness of the staff	0,77
Certainty	A trustworthy manner of conversation	0,77
Empathy	Individual approach to the client	0,77
Responsiveness	Connection waiting time	0,86
Reliability	Connection quality	0,89

Source: own research.

In the next stage of the research, the importance of individual quality dimensions was determined (Table 4). The most important dimension was "responsiveness", followed by "reliability", "confidence" and "empathy".

**Table 4.**  
*Importance of quality dimensions*

The quality dimension	Importance
Reliability	25
Responsiveness	30
Certainty	24
Empathy	21

Source: own research.

Then, the weighted arithmetic difference was calculated for individual quality features (Table 5). The obtained results indicate that "answering the phone" was the worst-rated element. Giving importance to individual dimensions has not changed the fact that it is still the weakest quality trait.

**Table 5.***Weighted arithmetic difference for individual quality characteristics*

No	Quality Criterion	Questions/ Statements	Arithmetic difference	Weight	Weighted arithmetic difference
1	Reliability	Accuracy of information	0.75	25	18.75
2		Reliability of information	0.70		17.61364
3		Connection quality	0.89		22.15909
4	Responsiveness	Answering the phone	-0.09	30	-2.72727
5		Time of waiting for connection	0.86		25.90909
6		Speed of response to questions	0.77		23.18182
7	Certainty	Competence of personnel	0.66	24	15.81818
8		Courtesy and friendliness of the staff	0.77		18.54545
9		A trustworthy manner of conversation	0.77		18.54545
10	Empathy	Individual approach to the client	0.77	21	16.22727
11		Full attention to the customer	0.68		14.31818
12		Identification of customer needs	0.70		14.79545

Source: own research.

Then, the unweighted (SQnw) and weighted (SQww) Servqual index was calculated for each quality feature as assessed by the customer (Table 6). The obtained general results indicate that the ideal state has been achieved ( $P > O$ ). The worst assessed, though positively dimensioned, was "reacting", and after taking into account the weight of dimensions – "empathy". These are areas that can be further improved. The obtained results are similar to the previous results of research carried out with other methods (Smoluk, 2011; Koreleska, Chwal, 2016; Koreleska, 2019).

**Table 6.***Servqual indicator unweighted (SQnw) and weighted (SQww) for individual quality dimensions as assessed by customers*

The quality dimension	SQnw	SQww
Reliability	0.780303	19.50758
Responsiveness	0.515152	15.45455
Certainty	0.734848	17.63636
Empathy	0.719697	15.11364
Indicator	Arithmetic overall average measure: SQn = 0.6875	Weighted overall average measure: SQw = 16.92803

Source: own research.

## 5. Discussion

In addition to the assessment of the quality of services according to Servqual, additional information was obtained regarding, reasons for closing down some of the business entities. One of them was found to be the Covid pandemic. In addition, the reasons for closing stores, according to entrepreneurs, were also: greater availability and lower prices of organic food in

hypermarkets, chains, e.g. in Auchana, Tesco or Rossman, logistics problems, e.g. with the availability of parking spaces for customers, etc.

When asked how the situation changed during the pandemic, 44% of entrepreneurs who answered this question indicated that the number of customers in the store did not change, the same number of entrepreneurs said that more people buy organic food from them. Every tenth point declared that the number of people making purchases decreased during the Covid-19 pandemic.

Another important piece of information, which was obtained during the research, is that there is a large rotation of specialist organic stores. The database that was used, turned out to be largely out of date. The list included companies that have ceased to operate in this industry or are planning to undertake it. Some of the information presented in business cards in the databases is free of charge, so entrepreneurs do not have to rush to remove it. The problem with the list of organic food retailers is also due to the fact that retail outlets are not subject to additional specialized control and certification, such as organic farms, processing plants or wholesalers that introduce organic products to the market. In addition, the lists created, e.g. according to the Polish Classification of Activities, have a much wider scope and are not limited only to organic food, and may not even include it at all (PKD 47.29.Z Retail sale of other food in specialized stores).

## 6. Summary

The obtained assessment of the quality of services means that the expectations of service users in the surveyed entities have been met. The defined difference between the expected and perceived quality indicates that the customer's satisfaction has been achieved. The worst ranked, although positively assessed dimension, was "reacting", and after taking into account the weight of dimensions – "empathy". These are areas that can be further improved by entrepreneurs.

In conclusion, it can be said that Servqual method is of great importance in optimizing the management process activities in the studied traditional organic enterprises, especially in the era of Covid-19 pandemic and should be widely used.

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