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## **THE DETERMINANTS OF QUALITY AND SATISFACTION IN THE OPINION OF SMALL MEDICAL SERVICE ENTERPRISES' CUSTOMERS – THE CHOSEN PROBLEMS**

### **DETERMINANTY JAKOŚCI I SATYSFAKCJI W OCENIE KLIENTÓW MAŁYCH PRZEDSIĘBIORSTW USŁUGOWYCH Z BRANŻY MEDYCZNEJ – WYBRANE PROBLEMY**

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**Summary:** The objective of the article is to identify the determinants of service quality and satisfaction in the opinion of small medical service enterprises' customers. The first part contains literature review in the field of service quality and the satisfaction as its important factor. Afterwards, the results of empirical research have been presented. Anonymous survey was conducted among customers of small medical service enterprises. The questionnaire regarding the significance assessment of chosen determinants of satisfaction, which respondents made using Likert scale, indicated that particular factors influence the quality and satisfaction of medical service provided by small enterprises to a different extent.

**Streszczenie:** Celem artykułu jest identyfikacja determinantów jakości i satysfakcji w ocenie jakości usług dokonywanej przez klientów małych przedsiębiorstw usługowych z branży medycznej. Pierwsza część opracowania zawiera przegląd literatury z zakresu zagadnień jakości usług oraz satysfakcji jako istotnego czynnika jej kształtowania. Następnie zaprezentowane zostały wyniki anonimowej ankiety przeprowadzonej wśród klientów małych przedsiębiorstw usługowych z branży medycznej. Kwestionariusz dotyczący oceny istotności wybranych determinantów, której respondenci dokonywali z wykorzystaniem pięciostopniowej skali Likert'a, wskazał, iż poszczególne czynniki w różnym stopniu wpływają na jakość i satysfakcję z usług medycznych świadczonych przez małe przedsiębiorstwa.

**Keywords:** medical service, satisfaction, services, service quality

**Słowa kluczowe:** jakość usług, satysfakcja, usługa, usługa medyczna

## **Abstract**

### **Introduction and purpose of the work.**

In the literature quality and service quality are defined as complex, heterogeneous issues that are difficult for unequivocal characteristic. Multiplicity of scientific descriptions causes both the difficulty to use the resources of literature and the multitude of gaps contained in it. For the needs of this study determinants of quality and satisfaction, medical services, small enterprises, and customer's point of view has been chosen as the issue of research.

The aim of this work is to identify the key determinants of quality and satisfaction with medical services provided by small enterprises in the opinion of customers.

**State of knowledge.** According to numerous reports, the importance of the services sector in the economy has been constantly growing. The predictions say that these conditions will continue [1]. The literature contains a wide and incessantly developing range of publication about the quality of services: review and research articles in journals, books and conference proceeding. Quality of services takes different forms: perceived and objective, technical and functional, income, process, and outcome, and a lot of others [2]. Subjected to examination have been service quality gaps, dimension, criteria, and phases from the point of view of the customer, employee or enterprise [3]. Research results differ significantly in terms of industry, time, and manner [4]. The current state of knowledge in the field of service quality allows to draw the conclusion that the research should be tailored to the needs in terms of time, place, methodology, and subject of the study.

**Summary.** The literature on the subject as well as the results of this study confirm that the quality of services and customer satisfaction is affected by a wide range of determinants. In the case of medical services, the importance differs from other industries and some theoretical assumptions. In shaping the quality and satisfaction with medical services the

prices has much a smaller role compared to time, and sense of security. The technical side of medical service is more important than organizational one. The basis of quality level are employee, and the result of service, especially in long-term perspective.

## **INTRODUCTION**

The economic activity of contemporary enterprises has been run in an environment characterized by instability and dynamic changes caused by a lot of factors. The most dominant of them are huge competition, globalization of markets, and constantly changing need and expectations of customers. The possibility of functioning and development of enterprises in these conditions depends on a number of important determinants that help maintain a competitive position and break development barriers [5].

A case worthy of special attention are small service enterprises. Small and medium-sized enterprises' sector is pillar of economic development in Poland. Initiatives, innovation, and development of enterprises belonging to this sector are constantly supported and stimulated by many national and European organizations. Furthermore, the concept of three sectors indicates on the economic regularity according to which the observed growth in the service sector will be continued [6]. Therefore, among small service enterprises there is a huge competition, with which enterprises try to fight with the help of various tools. One of them is to provide a high standard of services in the form of their the highest quality.

According to the literature, the concept of quality was created by philosopher Cicero who the term "qualitas" introduced to Greek philosophy in 45 B.C.. Noticing the importance of quality in prehistoric times is not surprising- the idea of something being better than something else was natural even for primitive people and is natural for people of modern societies. Initially, the need to measure some phenomena was recognized what indicated the necessity to identify measurable and incommensurable criteria [7]. Based on this assumptions, the first definition characterized quality as a certain degree of perfection. Over the years, due to technological development, social changes and accepted models of business functioning this concept has evolved. From the beginning of 20<sup>th</sup> century quality was perceived through the technical prism, being defined as the compliance with the norms and standards. In the middle of the century it was evaluated as the usefulness of the product [8].

Nowadays, quality is defined in many different ways, depending on the scientific discipline and the subject of research. The philosophical approach characterizes it as an aspect impossible to absolute defining and subjectively evaluated perfection. Definitions based on technical approach perceive quality as overall product properties that enable its effective use and a set of physical, chemical, and biological features that differentiate the product from others [9]. The sociological aspect points to the attitude of customers to specific quality traits. There is also an economic approach according to which quality is a degree of compliance of the product with the requirements conditioned by prices, income, and needs. Furthermore, quality is a common subject of marketing research that evaluate it through the prism of customer satisfaction. An appropriate level of quality is identified when customer expectations are met or exceed [10]. The most popular modern definitions are customer-approach. Quality is perceived as meeting customers' needs, requirements, and expectations. Lack of one standardized definition results from the abstractness of this concept and its strong connection with the accepted aims. As a part of introduction, however, it is worth presenting different approaches to defining quality because they form a coherent whole and show that quality is a part of functioning in many aspects of the organization's.

## **SERVICE QUALITY AND CUSTOMER SATISFACTION**

Relatively new discussion regarding the quality of services originates from the need to adapt the issue of quality of industrial production to the realities of the modern economy

which ceased to perceive production as a foundation for economic development. Modern strategies and tools of competitive struggle for the pillar of enabling the enterprise to function and develop assume the assurance of the highest quality of products, also requiring a high level of distribution, sales, and service [11]. The results of this situation is the development of theoretical concepts of methodology and improvement of service quality by adjusting the quality of the product to the service specification. The literature on the subject indicates significant differences between the quality of product and services [12,13].

First of all, quality of service is characterized by a great difficulty in measuring because of a large variety of its criteria that make it impossible to develop a universal template of measurable indicators. Moreover, the service provider is primarily responsible for service quality and there is no division of responsibility characteristic for production. Mention should also be made of the interaction identified in between the service provider and the service buyer that is an important determinant of the final assessment of the level of service quality made by the customer. Last but not least, the service delivery process has a complete lack of error tolerance and is depended on demand [14].

The consequence of the presented differences is the multiplicity of the definition of the issue of service quality. Five basic sets of characteristics of this concept are available in the literature. The quality of services based on product definitions is the benefit provided to the customer. The process approach understands the quality of services as its compliance with the standard. The philosophical aspect refers to the perception of service activities. Value-oriented approach defines the quality of services as the comparison between the benefits of the service and the cost of obtaining it. The result of demand definitions, currently considered as the most important due to their customer orientation, is the development of studies presenting the quality of services as meeting the needs and expectations of customers, that should be continuously created and identified by service enterprises [15].

Different approaches to quality have resulted in a rich and ever-growing methodology of service quality research. A particular determinant of service quality is customer satisfaction, being the main subject of research in this field. In the introductions to definitions, this term is often referred to as the answer to good or bad quality [16]. The most general studies characterizes satisfaction as the result of an emotional approach to the service built on the basis of customer needs, expectations, and previous experiences. Perception of satisfaction through the prism of technical definitions of service quality includes dependence of satisfaction on usability and the subjective properties of the service [17,18]. Nowadays, due to the special importance of customer orientation T. Levitt's views from 1960 on the necessity of adapting the industry to customer satisfaction do not lose their relevance [19]. The complex nature of this phenomenon distinguishes the enterprises' impact on the cognitive and emotional sphere of the customer. In the case of services, a particular value is assigned to the emotional sphere. Satisfaction from the service is strongly associated with the positive feelings that customer experiences by meeting his needs and expectations. The source of these feelings is value determined by the outcome of service process [20]. It means that the feeling may appear directly after completing the service delivery process or may be a reaction to the overall experience related to the use of the service offer of the chosen enterprise. High quality of service, perceived as the main determinant of satisfaction, is not the only factor building it. The customer also shapes the level of satisfaction based on situational factors (such as well-being) and aspects of internal norms, standards, and expectations. The satisfaction effects may be positive (customer loyalty) or negative (complaints and customer loss) [21].

The summary of considerations on satisfaction allows defining it as a resultant of the customers' requirements (determined by the process of providing the service) and experiences (appearing after providing the service) [22].

The Servqual method, elaborated by A. Parasuraman, V.A. Zeithaml and L.L. Beery in 1983-1985 is the basis of service quality and satisfaction methodology, and often the pattern and inspiration of creating modern tools. The Servqual has been perceived as the most widespread method used for measuring service quality [23]. It compares the customers' expectations and perception of the actual standard of quality service within five dimensions. These are [24]:

- tangibles (equipment, physical facilities, staff's appearance),
- reliability (ability to perform the service accurately and dependably),
- responsiveness (willingness to help),
- assurance (staff's knowledge and courtesy),
- empathy (staff's attention and customer understanding).

In reference to the literature [25], the obtained result indicates one of the three situations:

- perceived quality < the expectations- service quality does not meet customers' needs,
- perceived quality = the expectations- service quality is satisfied,
- perceived quality > the expectations- service quality exceeds customers' expectations.

### **THE DETERMINANS OF QUALITY AND SATISFACTION IN THE OPINION OF SMALL MEDICAL SERVICE ENTERPRISES' CUSTOMERS**

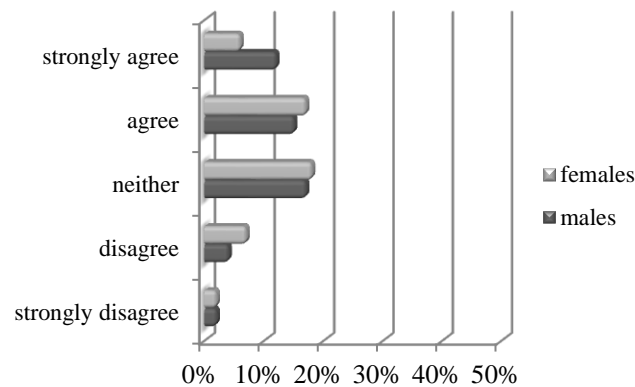
To confirm or deny the importance of particular chosen determinants in shaping quality and satisfaction with medical services provided by small enterprises, a survey has been conducted. Anonymous survey contained ten statements for which the respondents assigned ratings indicating their compliance or noncompliance. For evaluation purpose, the typical Likert scale- five point scale there has been used [26]. The note 1 means "strongly agree" and 5 means "strongly disagree". In the survey participated respondents of different gender and ages, including 50% males and 50% females. The structure of the survey respondents is shown in table 1.

***Tab. 1. The characteristics of respondents - percentage structure of respondents' features***

<b>Age</b>	<b>Males , %</b>	<b>Females, %</b>	<b>Total, %</b>
18-24	12	24	36
25-39	32	18	50
40-59	6	8	14
60<	0	0	0
			<b>100</b>

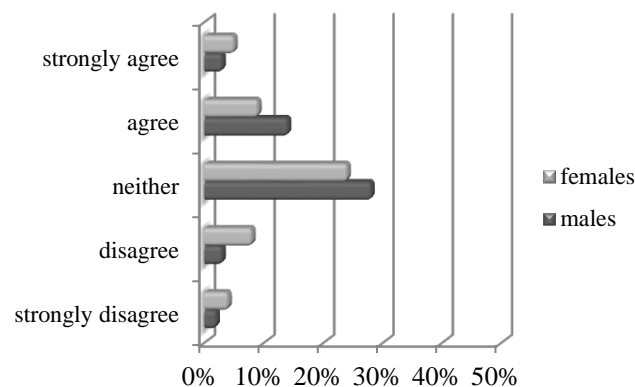
The first statements of the questionnaire is: Prices is the main determinant of quality and satisfaction of medical service offered by small enterprises (fig. 1). According to the presented data the largest number of respondent do not have their opinion (35%), positive answers (agree or strongly agree) achieve together equally 50% (including 32% of agree and 18% of strongly agree), and negative- 15%. It means that price is a factor affecting quality, but certainly not the most important one.

**Fig. 1. Price as the main determinant of quality and satisfaction – respondents’ opinion**



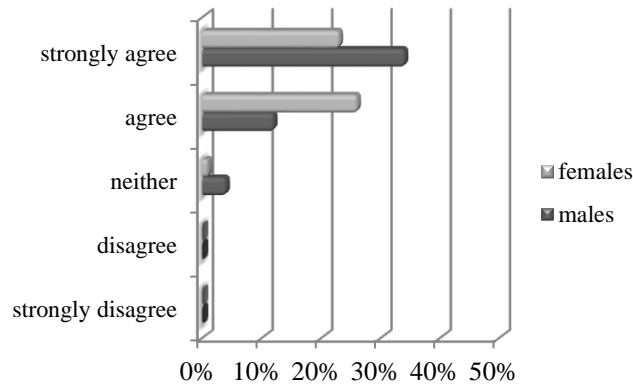
Second statement’s answers are presented in fig. 2. The respondents are asked whether time (speed, efficiency, lack of waiting) is the main determinant of quality and satisfaction. The obtained results do not differ much from the previous one. Percentage of undecided respondents is bigger (52%). 23% of them agree with this statement and 11% disagree. There are also no significant discrepancies in gender responses. Therefore, it should be assumed that the time in comparison to the price is a less important determinant of the medical service of small enterprises.

**Fig. 2. Time as the main determinant of quality and satisfaction – respondents’ opinion**



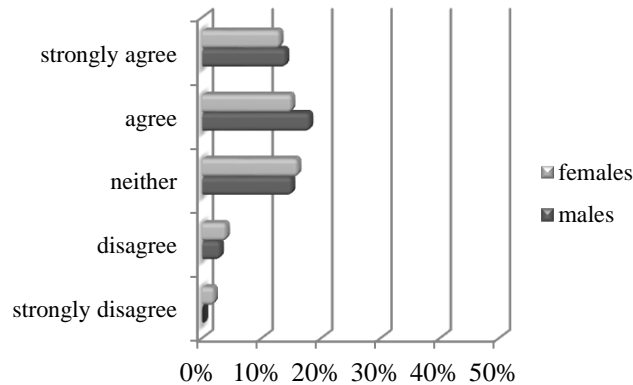
The third statements concerns technical conditions (place, equipment) as the main determinant of quality and satisfaction with medical services (fig. 3). Most of respondents (57%, including 34% of males and 23% of females) strongly agree with this. Also a high percentage (38%, 12% of males and 26% females) agree. It should be noticed that 5% answered neutrally and no one disagrees. These results show that technical conditions is a very important determinant of the researched issue.

**Fig. 3 Technical conditions as the main determinant of quality and satisfaction – respondents’ opinion**



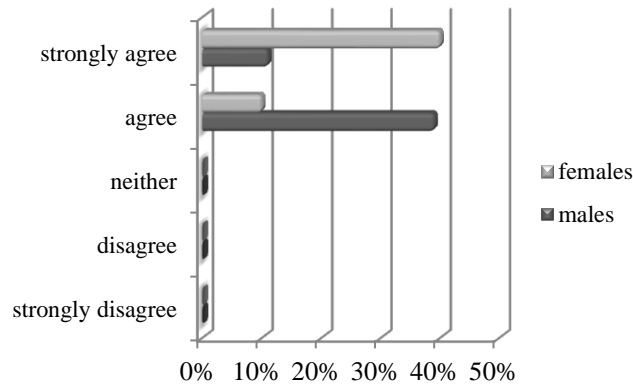
Afterwards, the respondents’ opinion on the importance of organizational conditions (organization of the service, method of contact and waiting) is checked (fig. 4). The presented data shows that the opinions are more divided. The respondents are not so unanimous as about technical conditions. 27% of them strongly agree, 33%- agree, and 31% of them is neutral. Negative responses are low percentage (9%). The results should be summarized by the conclusion that organizational conditions built the level of quality and satisfaction with medical services but they are not the most important.

**Fig. 4. Organizational conditions as the main determinant of quality and satisfaction – respondents’ opinion**



Cited literature indicated that in case of services the employee and interaction are of particular importance in shaping the quality and satisfaction. First of all, respondents’ opinion about the employee (knowledge, experience, and skills) is presented in fig. 5. The results leave no doubt- employee is perceived as one of the main determinant by all of the respondents. 51% of them strongly agree and 59% agree.

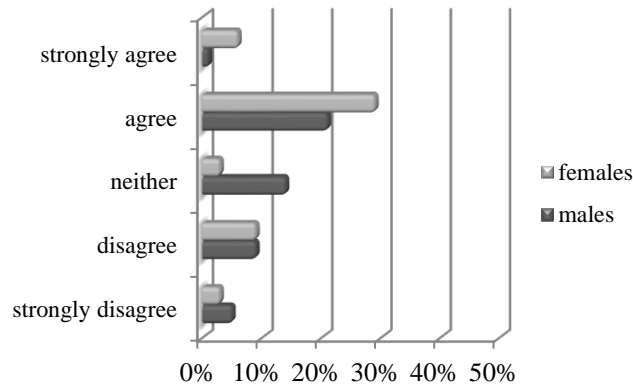
**Fig. 5. Employee as the main determinant of quality and satisfaction – respondents' opinion**



The Servqual method defines empathy as a dimension requiring a separate study. Fig. 6 presents how important is empathy (approach to customers, understanding their needs) in creating the level of quality and satisfaction.

Most of the respondents (50%, including 21% of males and 29% of females) agree with the statement. Less than 20% is neutral (17%) or disagrees (18%). The results show that empathy should be perceived as important determinant of medical service quality and satisfaction.

**Fig. 6. Empathy as the main determinant of quality and satisfaction – respondents' opinion**

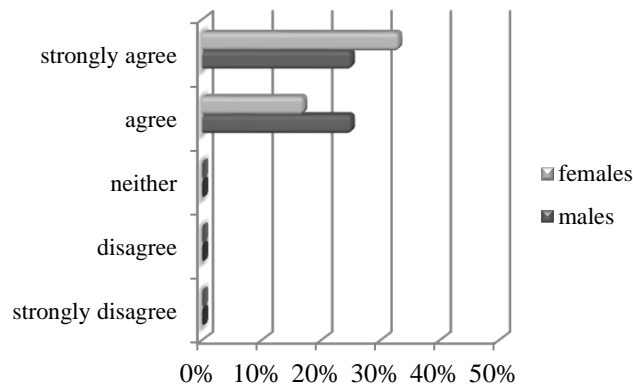


Another determinant subjected to the assessment of respondents is sense of security (fig. 7). Some types of services in theory are characterized by a higher need for a sense of security. The intention of this statement has been to check how this determinant is shaped in the assessment of the quality level among factors from other dimension.

The data presents that sense of security in medical service provided by small enterprises is a critical determinant of quality and satisfaction. All of the respondents strongly agree (58%) or agree (42%) with this statement. Worth noticing is that higher percentage of females indicates the highest response on this scale.



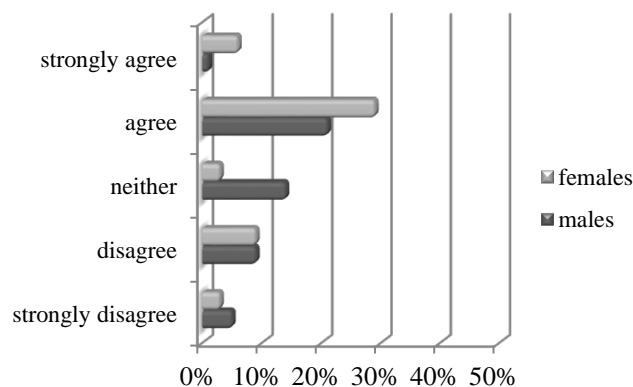
**Fig. 7. Sense of security as the main determinant of quality and satisfaction – respondents’ opinion**



Psychological aspect of service quality details the first impression as a determinant of the quality of services. Previous authors’ research [27] which resulted in the development of a proposal of a service quality model based on the 4Q’s model and system approach to service quality management indicated that most of the respondent appreciates the role of the first impression in creating opinion of the services. Fig. 8 presents percentage opinion of customers about the meaning of first impression in case of medical services’ quality.

The data shows that half of respondents (50%, including 21% of males and 29% of females) agree with this statement. Only 7% of them (with 6% of females) strongly agree, almost every fifth (17% including 14% of males) is neutral and similar percentage of respondents (18%) disagree. It should be mentioned that there are significant differences between the opinion of males and females- many more women indicated positive responses. To summarize this data, first impression should be perceived as a determinant of service quality and satisfaction but to a greater extent for women.

**Fig. 8. First impression as the main determinant of quality and satisfaction – respondents’ opinion**



The last two statements concern the results of medical service- in short and long-term. Firstly respondents are asked about the meaning of the result right after the service delivery in shaping the quality and satisfaction with medial service (fig. 9).

As it can be seen in fig. 9 most of respondents (65% of them including 27% of males and 28% of females) agree with this statement and 31% of them strongly agree. No one disagrees. The suggestion is implied that customers evaluate the quality of medical service right after the service delivery and their opinion about the effect created at once is important determinant of medical service quality and satisfaction.

**Fig. 9. The result right after the service delivery as the main determinant of quality and satisfaction – respondents’ opinion**

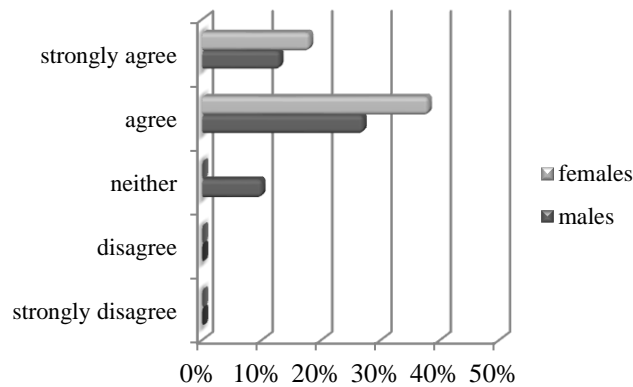
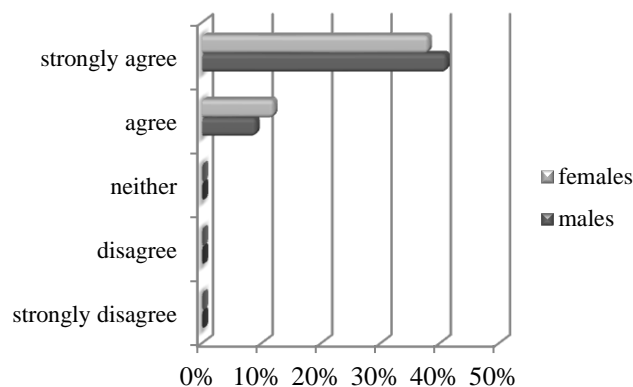


Figure 10 presents the data from the last statements about the meaning of long-term effect. The significance of the result in the long-term context is even more important than immediate opinion. 79% of respondents strongly agree that long-term effect of service is the main determinant of quality and satisfaction with medical services. The rest of them agree and there are no negative answers.

**Fig. 10. Long-term effect of service as the main determinant of quality and satisfaction – respondents’ opinion**



## SUMMARY

Despite the fact that the quality of services is a frequent subject of research, there are still gaps worth of scientific interest. In case of medical services this is particularly important because they have been constantly evolving and have direct impact on people’s lives, health and well-being. The results of this research- an analysis of literature quoted in this work and empirical research in the form of a survey for small service enterprises from the medical industry’s customers presented that selected indicators based on one of the most famous method of testing the quality of services create the level of quality and satisfaction for the medical service in varying degrees.

The main conclusion from this work are:

- price is not as important determinant of quality and satisfaction with medical services,
- in the case of medical service, the time and the sense of security are more important than the price,
- technical conditions are more important than organizational conditions,
- the employee has a particularly significant impact on the quality (however, more important is his “technical side”- knowledge etc. than soft skills),

- quality and satisfaction is largely shaped by the result of the medical service (long-term effect is the most important but opinion created immediately after the service delivery cannot be underestimated).

This work can be the basis for further research. Another method of research can be chosen for indicated determinants or other factors can be studied. The importance of particular determinants being the results of this research can also be used for other research in the field of quality of medical services provided by small enterprises.

## REFERENCES

1. Golpek F., Service sector and technological development, *Procedia- Social and Behavioral Sciences* 2015, vol. 181, 125-130.
2. Urban W., Definicje jakości usług- różnice oraz ich przyczyny, *Problemy Jakości* 2007, 3, 4-9.
3. Sharabi M., Managing and improving service quality, *International Journal of Quality and Service Sciences* 2013, vol. 5, no. 3, 309-320.
4. Seth N., Desmugh S.G., Vrat P., Service quality models: a review, *International Journal of Quality and Reliability Management* 2015, vol. 22, no. 9, 913-949.
5. Smolarek M., Wybrane aspekty rozwoju małych i średnich przedsiębiorstw, *ZN WSH Zarządzanie*, 2015, 3, 3-38.
6. Dietrich A., Kruger J.J., Long-Run Sectoral Development-Time Series Evidence For Germany Economy, *Jena Economic Research Papers* 2008, 013, 1-25.
7. Ejdyś J., Kobylińska U., Lulewicz-Sas A., Zintegrowane systemy zarządzania jakością, środowiskiem i bezpieczeństwem pracy, *Oficyna Wydawnicza Politechniki Białostockiej*, Białystok 2012.
8. Kowalik K., Klimecka-Tatar D., Wpływ procesu obsługi klienta na kształtowanie funkcjonalnej jakości usług, [w:] *Instrumenty doskonalenia w zarządzaniu*, R. Ulewicz, P. Sygut (red.), *Oficyna Wydawnicza SMJiP*, Częstochowa 2016, 46-57.
9. Ramezani G.A., Feiz S., Baharun R., Service quality measurements: a review, *International Journal of Academic Research in Business and Social Sciences* 2016, vol. 5, no. 2, 267-286.
10. Horbaczewski D., Filozoficzne źródła współczesnego pojmowania jakości, *Problemy Jakości* 2006, 10, 9-12.
11. Bielawa A., Postrzeganie i rozumienie jakości- przegląd definicji jakości, *Studia i Prace Wydziału Nauk Ekonomicznych i Zarządzania* 2011, 143-152.
12. Juhani A., Jussila K., Understanding quality- conceptualization of the fundamental concepts of quality, *International Journal of Quality and Service Sciences* 2017, vol. 9, no. 3/4, 251-268.
13. Jain P., Aggarwal V., Service quality models: a review, *BVIMSR's Journal of Management Research* 2015, vol. 7, no. 2, 126-136.
14. Lofgren M., Witell L., Gustafsson A., Theory of attractive quality and life cycles of quality attributes, *The TQM Journal* 2011, vol. 23, no. 2, 235-246.
15. Ganesh R., Haslinda A., Evolution and conceptual development of service quality in service marketing and customer satisfaction, *International Review of Management and Business Research* 2014, vol. 3, no. 2, 1189-1197.
16. Kowalik K., Zarządzanie rozwojem małych przedsiębiorstw usługowych a satysfakcja klienta, [w:] *Współczesne zarządzanie finansami- teoria i praktyka*, A. Wójcik-Mazur, J. Łukomska-Szarek (red.), *Wydawnictwo Wydziału Zarządzania Politechniki Częstochowskiej*, Częstochowa 2018, 19-28.
17. Kachniewska M., Modele jakości usług a specyfikacja produkty turystycznego, [w:] *Turystyka w badaniach naukowych. Prace ekonomiczne WSiLiZ*, A. Nowakowska, M. Przydział (red.), *Rzeszów* 2006, 303-319.
18. Haffer R., Satysfakcja klienta i jej pomiar, [w:] *Marketingowe testowanie produktów*, S. Sudół, J. Szymczak (red.), *Wyd. PWN*, Warszawa 2000, 43-46.
19. Śmiatacz K., Badanie satysfakcji klientów na przykładzie rynku telefonii komórkowej w Polsce, *Wyd. Uniwersytetu Technologiczno-Przyrodniczego w Bydgoszczy*, Bydgoszcz 2012, 11-13.

20. Ahrholdt D.C., Gudergan S.P., Ringle C.M., Enhancing loyalty: When improving customer satisfaction and delight matters, *Journal of Business Research* 2019, vol. 94, 18-27.
21. Klementova J., Zavadsky J., Zavadska Z., The measurement and evaluation of the service quality through customers 'satisfaction', *ProcediaEconomic and Finance* 2015, vol. 26, 126-130.
22. Ahrholdt D.C., Gudergan S.P., Ringle C.M., Enhancing service loyalty: The roles of delight, satisfaction, and service quality, *Journal of Travel Research* 2017, vol. 56, no. 4, 436-450.
23. Ladhari R., A review of twenty years of Servqual research, *International Journal of Quality and Service Sciences* 2009, vol. 1, no. 2, 172-198.
24. Yong Pil K., Kye-Wan K., Deok-Gyun Y., Exploration and Development of SERVQUAL, *Asian Journal of Quality* 2003, vol. 4, no. 1, 116-130.
25. Kowalik K., Klimecka-Tatar D., Analysis and evaluation of service quality, quality improvement- case study, [w:] *Quality Production Improvement. Production Engineering*, R. Ulewicz, M. Ingaldi (red.), Oficyna Wydawnicza SMJiP, Częstochowa 2018, 92-102.
26. Sullivan G., Artino Jr R., Analysis and interpreting data from Likert-type scales, *Journal of Graduate Medical Education* 2013, vol. 5, no. 4, 541-542.
27. Klimecka-Tatar D., Kowalik K., Brozova S., Service quality model based on the 4Q's model and the system approach to service quality management, [w:] *Proceeding of the 2<sup>nd</sup> International Conference Contemporary Issues in Theory and Practice of Management*, M. Okręglińska, A. Korombel, A. Lemańska-Majdzik (red.), Wyd. Wydziału Zarządzania Politechniki Częstochowskiej, Częstochowa 2017, 236-243.