

APPLICATION OF SERVQUAL METHOD FOR EVALUATION OF QUALITY OF EDUCATIONAL SERVICES AT THE UNIVERSITY OF HIGHER EDUCATION

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Abstract: The quality of provided educational service, its perception by students as well as employers in the market is an important element in the positioning of future employee in the labour market. We can conclude that the completion of the university with an established reputation can help in a graduate career. There is therefore a necessity, not only statutory but also market, to research quality and integrity of provided educational services. The article presents research results of quality of provided services based on the level of satisfaction of students majoring in Management and Production Engineering at the Faculty of Management of the Czestochowa University of Technology. The study will be expanded in the future on the results of perception of quality of educational services from the perspective of employers who employ students of analyzed university.

Key words: servqual, quality management, high education, service management

Introduction

Dynamically changing requirements (expectations) of internal stakeholders (students) as well as external stakeholders (employers - the labour market) require from the university to take action to provide professional educational service tailored to the current market situation. In order to increase the competitiveness of the Faculty of Management there were carried out research aimed at the indication of the areas, in the opinion of students (the first stage of the research), in which the implementation of improvement activities will be an opportunity to enhance the reputation of the organization in the market of educational services [1, 2].

The student is a link located on the input and output of processes carried out at the university and in fact it assesses their efficiency and effectiveness. Therefore, the Faculty of Management of the Czestochowa University of Technology is still looking for answers to the question, what are the actual expectations of customers (students and employers) in relation to co-operation with the university and what are their needs in relation to educational service offered. Proper identification of customer needs and quick following their changes allows you to adjust to the demands of the market and gives the possibility of high positioning in the ranking of universities. It is therefore important to use tools that allow you to study potential needs of students and past employers as well as the degree of their satisfaction. For the process of quality improvement and external concerning previously provided educational service is crucial to know the opinion of internal stakeholders.

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Quality management

Complexity of management of service company, which is the university, is a typical mix of mutual contacts. The university, for example, an academic teacher, an administrative clerk, porter, etc., each separately contacts with the customer that is in our case with the student [3÷6]. However, if we look more broadly at the problem of receiving the quality of the educational service it turns out that the customer is not only the student but also the employer, that is the labour market, which will be monitoring part, controlling and evaluating the quality of service provided[6]. University in order to obtain a sustainable advantage must continually increase the quality of its services. Achieving this goal at the Faculty of Management is implemented through the use of an internal system of education quality assurance based on the ISO 9001 system solutions.

According to the authors, W. E. Sasser, P. R. Olsen, D. D. Wyckhoff, Ch. Grönroos, U.I.J. Lehtien, R. C. Lewis I. B.H. Booms quality of services was determined as a function of two variables, the expectations of providers and their actual experiences during the provision of service[7]. Quality of service is a measure that indicates in what extent the implementation of specific experience meets the expectations of the customer. Identifying the level of customer expectations requires determining what criteria are used by purchaser evaluating quality of service, also at the stage of formulating their expectations. Ch. Grönroos distinguished two aspects of quality of services: technical quality of service and functional quality of service.

Servqual

According to Parasuraman, Zeithaml and Berry [8], regardless of the type of service, consumers basically use the same criteria to assess quality. Service quality is a general opinion the client forms regarding its delivery, which is constituted by a series of successful or unsuccessful experiences. Managing gaps in service will help the company improve its quality. But gaps are not the only means clients use to judge a service. They can also use five broad-based dimensions as judgment criteria: reliability, tangibility, responsibility, security and empathy [9]. A tool supporting the quality measurement in the Servqual method is a model of gaps. Gaps are characterized by differences that are the cause of delivering poor quality of services [10÷14]. These differences between perceptions and expectations are addressed in the quality in service model shown in Figure 1. SERVQUAL is an instrument to measure quality that stems from this model and works with the difference in scores (gaps) in the form of a questionnaire. The model's five gaps are shown in Table 1.

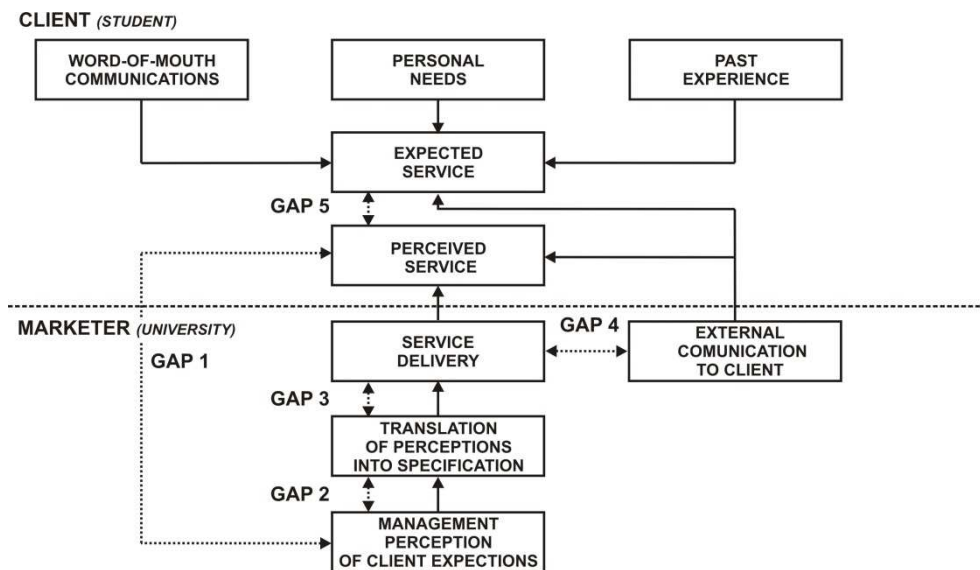


Figure 1. Model of quality of services according to Parasuraman, Zeithaml and Berry
 Source: Parasuraman, A.; Zeithaml, V. & Berry, L. A conceptual model of service quality and its implications for future research. *Journal of Marketing*, vol. 49, 1985.

Table 1. Model's five gaps

Gaps	Description	Cause
Gap 1	Is the discrepancy that can exist between the perception of executives and the real expectations of consumers	Management's failure to correctly identify client expectations.
Gap 2	Is the discrepancy between management's perception of client expectations and the specifications of service quality, that is, it is the supply of low quality even though the company has appropriate procedures.	Limited resources, lack of operational tools to bring the client's voice to service specifications; management's indifference and rapid change in market conditions.
Gap 3	Is the discrepancy between service quality specifications and the service actually delivered.	Lack of knowledge about specifications, lack of ability to carry out the specified or lack of commitment by collaborators.

Gap 4	Is the discrepancy between the service's specified quality and what the company communicates externally.	Lack of communication and the client does not know what to expect or more is promoted than actually delivered.
Gap 5	Is the difference between what the client expects and what the company actually delivers.	A gap or a series of gaps from 1 to 4.

The SERVQUAL scale (questionnaire) has two sections: one to map client expectations in relation to a service segment and the other to map perception in relation to a certain service company [15]. The first part contains statements that illustrate consumers expectations of a service and the service provider (O). The second part contains statements concerning the ratings of the given service provider (P). All statements are divided into five leading attributes: material infrastructure of service, service reliability, speed of service, professionalism, empathy. Forming expectations regarding various features of service provision and the evaluation of the fulfilment of these expectations is carried out based on the scale from 1 to 7, where 1 - means that with given statement respondent totally disagrees, and 7 - means that it completely agrees with it.

The third additional part of the survey is formulated in the form of assessments that aim to identify the importance for the recipient of 5 leading attributes by distributing 100 points between them [6,10]. Summing, perceived quality of services results from the comparison by the client (student) of service expected by him with the service received. Diagram of factors affecting perceived quality of service is shown in Figure 2.

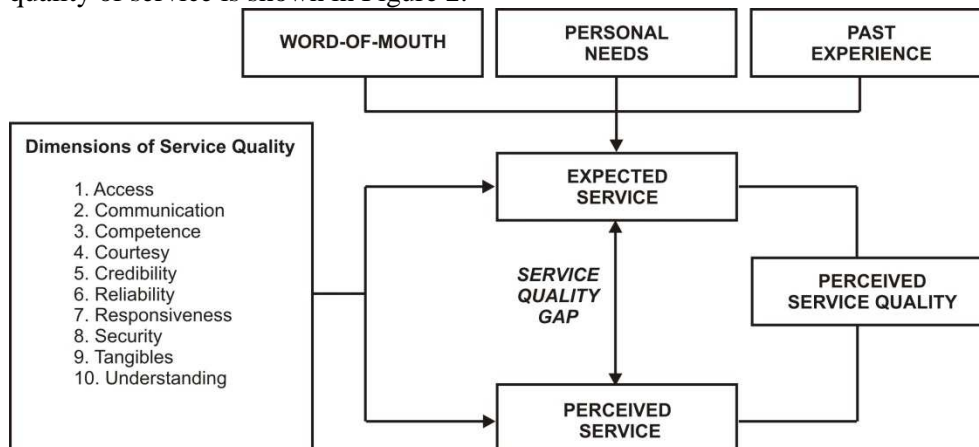


Figure 2. Determinants of perceived service quality

Source: Parasuraman, A.; Zeithaml, V. & Berry, L.: A conceptual model of service quality and its implications for future research. Journal of Marketing, vol. 49, 1985.

Servqual and learning assessment

The original SERVQUAL scale uses 22 questions to measure the five dimensions of service quality: reliability, tangibility, security, empathy and responsibility. In carried out research questions were adjusted to the specificity of quality research of educational services. There was limited the number of questions to 20 by drawing on the literature data [6, 10,15]. Table 2 shows modified sheet of Servqual method, which was used in the surveys of the quality of educational services in Management and Production Engineering field of study at the Faculty of Management.

Table 2. SERVQUAL - expectations questionnaire adapted to Higher education services

Tangibility	
1.	Excellent university should be equipped in a modern way (computers, laboratories, multimedia classrooms).
2.	Accommodations in a excellent university should be attractive, clean neat.
3.	The staff and teachers of an excellent university must present themselves (clothes, cleanliness, etc.) in manner appropriate to their positions.
4.	Materials related to provided services in excellent university (the content of the lectures, magazines, publications, etc.) must be current, understandable and accessible.
Reliability	
5.	When the excellent university promises to do something at a certain time keeps its promise.
6.	When a student has a problem, excellent university shows sincere interest and helps to solve it.
7.	Excellent university performs teaching services in a professional way, at high level
8.	Excellent university ensures that the information and data (plans and grid classes, ECTS credits, etc.) are published without errors.
Responsibility	
9.	The staff and academic teachers of in an excellent university always inform about the date of service performance (the deadline for submission of documents, credit courses, graduation, etc.)
10.	Excellent university performs all administrative and educational services efficiently.
11.	The staff and academic teachers of an excellent university, always show good will by helping students.
12.	In an excellent university staff and teachers are always available and ready to explain the doubts, which may have their students.
Security	
13.	The behaviour of teachers and of employees in an excellent university should inspire confidence in students.
14.	The staff and teachers of in an excellent university should be polite to the students.
15.	Excellent university students do not have concerns concerning the realization of educational service.
16.	Academic teachers of excellent university must have the knowledge, which allows answering questions from students.

Empathy	
17.	Excellent university has convenient office hours (dean's offices, Deans, consultation of workers) for all students.
18.	In excellent university are employed workers and academic teachers who treat each student as an individual
19.	Excellent schools focus on the best service for students.
20.	Teachers and employees of excellent university should understand the specific needs of their students.

These questions should be scored on a Likert scale from 1 to 7. Rating 1 means the lowest expectations of the student with respect to a given question / area, while rating 7 means the highest expectations with respect to area of given question. In case of the second part of the sheet (fragment Table 3) in which was tested student experience, the meaning of each evaluation is shown in Table 4.

Table 3. Part of the SERVQUAL – performance (student experience) questionnaire adapted to Higher education services

Tangibility	
1.	Your university is equipped in a modern way.
2.	Accommodations in your college are clean, neat and attractive.
3.	The staff and teachers in your university present themselves in a manner appropriate to their positions.
...

Table 4. The grading scale in Servqual survey - performance (student experience)

1	2	3	4	5	6	7
Mediocre	Weak	Little Satisfactory	Satisfactory	Good	Very good	Excellent

Then the student had the task of assigning weights (in total 100 points) to particular groups of attributes, indicating a group of priority. This task is shown in Table 4.

Table 4. Weights of university attributes

Group of attributes	Number of points
The material infrastructure of service.	
The ability of university to provide services in a reliable and honest way.	
Granting assistance to students and timely provision of services.	
Knowledge of university workers and teachers, their kindness, reliability and the ability to gain confidence.	
Empathy of employees and teachers.	
<i>Total</i>	<i>100 points</i>

Data for the analysis of the quality of the teaching process

Studies using the proposed structure of Servqual survey were conducted on

the Management and Production Engineering field of study for full-time and part-time students. In surveys 101 people participated. 72% of respondents are studying full-time and part-time studies 28%. Because it is often assumed that women tend to have higher expectations and are therefore more critical in assessing the services compared to men, an analysis of respondents was carried out in respect of gender. Women accounted for 54% of respondents. Figure 3 shows a summary of answers results of student expectations in relation to an excellent university, and Figure 4 shows the results of meeting expectations (experience) of a student at the Faculty of Management. Figure 5 shows the differences between the actual situation and the expected in each group.

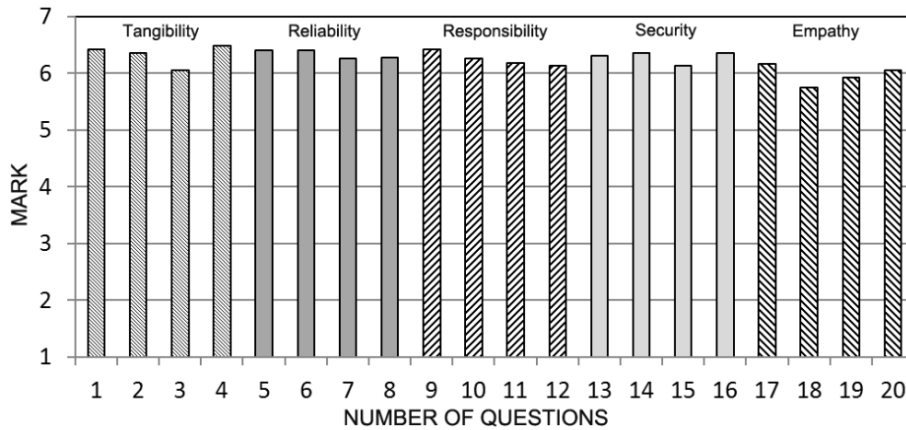


Figure 3. Summary of the results of average values of the responses of student's expectations in relation to the perfect university

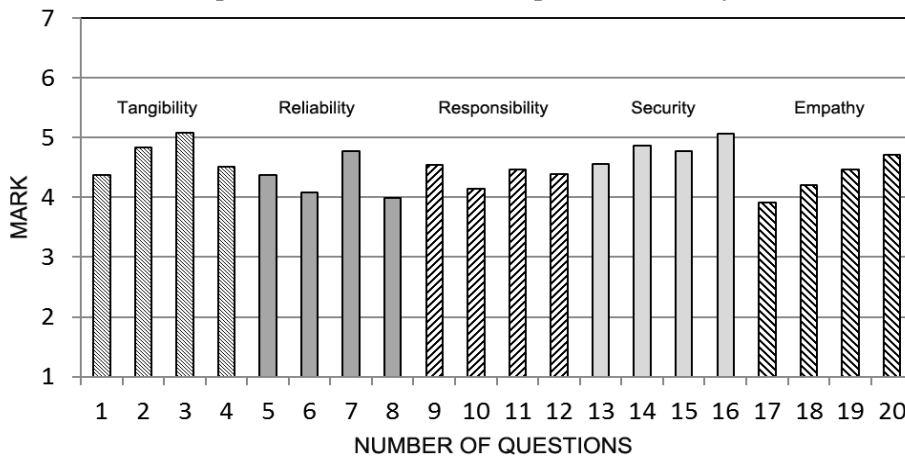


Figure 4. Summary of the results of average values of responses of meeting expectations of the student (student experience) at the Faculty Management

The overall unweighted indicator was -1.72 (Table 5) and was obtained as a result of: summarizing for each surveyed assessments of each assertion (within each attribute) and dividing them by the sum of claims in a given attribute, summarizing the results of the previous stage of all surveyed and dividing them by the number of surveyed and then the results were averaged (added together and divided by the number of attributes).

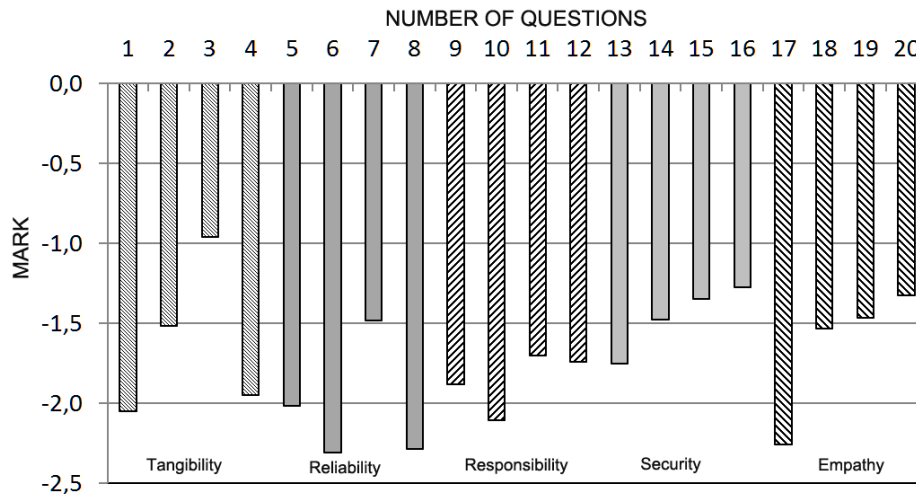


Figure 6. The difference between the experience of a student at the Faculty Management and the expectations

SERVQUAL weighted index, which already takes into account importance for surveyed students of the individual attributes of assessment of the quality of educational services, it amounted to -0.43 (Table 5). It was obtained after summing for each respondent assessments of each assertion (within each attribute) and dividing them by the sum of assertions in given attribute, multiplying for each respondent's score for each of the attributes of by the average weight of importance assigned to a given attribute by the respondent, summing these weighted results from all the attributes, summarizing the results of all surveyed clients and dividing these results by the number of surveyed.

Table 5. The results of unweighted and weighted quality assessments of educational service at Management and Production Engineering field of study at the Faculty of Management of Częstochowa University of Technology

Group of attributes [Average * weight]	Evaluation of the quality of services	Weighted quality of services [Average * weight]
The material infrastructure of service.	-1.62	-0.29
The ability of university to provide services in a reliable and honest way.	-2.02	-0.38

Granting assistance to students and timely provision of services.	-1.86	-0.35
Knowledge of workers and university teachers, their kindness, reliability and the ability to gain confidence.	-1.46	-0.37
Empathy of employees and teachers.	-1.65	-0.31
Average.	-1.72	-0.43

Obtained results show generally good estimation of the educational process at Management and Production Engineering field of study. There are, however, differences between the implementation and the expectations of the student, they concern mainly services provided throughout the Faculty, not only on the examined direction. Relatively low is assessed the fulfilment of the attributes of the institution's capacity to provide services in a reliable and honest way (unweighted difference -2.02). Students in this area have very high expectations in the field of engaging of the university in solving student problems (until 62% of respondents have very high expectations rating 7 - question 6), while the Faculty at the moment according to 50% of respondents, implements this process for the assessment of 4 and 5. The second statement (attributes Empathy of employees and teachers) where there is the greatest difference between the actual situation and the expectations is the availability of administrative and academic staff (survey item 17). As many as 50% of respondents have very high expectations (rating 7) while only 3% of respondents rated the situation on 7. The greatest number of votes received grade 4 - 26 % and 5 - 25%. Highly were evaluated statements from a group of knowledge of workers and university teachers .., which indicates high academic professionalism and high teaching and research potential. After comparing unweighted and weighted results of evaluations under each quality attributes there can be drawn similar conclusions. Comparing obtained results based on sex, women have much higher demands on the services provided; the biggest difference is noticeable in physical attributes of the service and empathy of employees.

Summary

Carrying out Servqual survey and analysis of results allowed assessing the quality of educational service at Management and Production Engineering field of study. On average, for each group of attributes and for the whole there was obtained negative value. This means that the expectations of students who participated in the study were higher than the perception of the actual service. The overall average for five groups of service quality attributes is -0.43. This indicates a great opportunity for improvement in the entire service providing cycle. At the Management Faculty are carried out activities aimed at continuous improvement of educational services. At Faculty operates an internal system of quality assurance, the purpose of which is to meet the expectations of internal and external stakeholders. The system takes into account the needs of internal stakeholders and external. Therefore, an important

element in the process of improving the quality of services is knowledge on the perception of the service by the beneficiaries this is employers. It was only knowledge of the quality of service from the point of view of the employer and graduate as well as the university employee will allow a comprehensive assessment of provided educational services by the Faculty of Management.

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ZASTOSOWANIE METODY SERVQUAL DO OCENY JAKOŚCI USŁUG EDUKACYJNYCH NA UCZELNI WYŻSZEJ

Streszczenie: Jakość świadczonych usług edukacyjnych, jej postrzeganie przez studentów, jak i pracodawców na rynku jest istotnym elementem umiejscawiania przyszłego pracownika na rynku pracy. Możemy stwierdzić, że ukończenie uczelni o ugruntowanej renomie może pomóc w karierze absolwenta. Istnieje zatem konieczność, nie tylko ustawowa, ale także rynkowa, do badania jakości i integralności świadczonych usług edukacyjnych. W artykule zaprezentowano wyniki badań jakości świadczonych usług na podstawie poziomu satysfakcji studentów kierunku Zarządzanie i Inżynieria Produkcji na Wydziale Zarządzania Politechniki Częstochowskiej. Badanie zostanie w przyszłości rozbudowane o wyniki postrzegania jakości usług edukacyjnych z perspektywy pracodawców, którzy zatrudniają studentów analizowanej uczelni wyższej.

Słowa kluczowe: servqual, zarządzanie jakością, wyższe wykształcenie, zarządzanie usługami.

方法中的应用 SERVQUAL 的在大学高等教育的教育服务质量的评价

摘要：提供教育服务的质量，它的学生，以及雇主在市场中的悟性是定位未来雇员在劳动力市场中的重要组成部分。我们可以得出结论完成既定的名誉大学可以帮助毕业生的职业生涯中。因此有必要的并非只有法定但还市场研究质量和完整的提供的教育服务。文章介绍了研究成果的基础的专业管理和生产工程在琴科技大学管理学院学生的满意程度的提供服务的质量。研究将在未来扩大视角的雇主雇用分析大学的学生教育服务质量感知的结果。

关键词：servqual、质量管理、教育水平高、服务管理。