

## ASSESSING EXPECTATION AND PERCEPTION OF SERVICE QUALITY. CASE STUDY OF A ROMANIAN UNIVERSITY

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### Abstract:

The aims of this paper are to assess the service quality in a university and to identify what dimensions they have to prioritize to attain the customer satisfaction. In general, in service domain there is a demand to find ways to attract new customers, retain existing customers, and pursue customers' loyalty. In universities (as service based organizations), customers are the students, and new students are admitted yearly. There is a need to retain students for their following years at university and to follow graduate studies (master and PhD). The quality of the service has been considered as a critical factor for the success because of the connection to customer satisfaction. SERVQUAL model was used to achieve the objective of the study. To see the applicability of the model, a case study was conducted in a university in Romania

*Keywords: quality, service, SERVQUAL, case study, university*

## 1. INTRODUCTION

The purpose of this study is finding out how the SERVQUAL model can be used to measure the service quality and customers satisfaction in the context of a university (higher education service provider) and to describe how consumers (students from different levels of education) perceive service quality and if they are satisfied with services offered.

This study contributes to existing studies regarding service quality, using a known model of assessment, the SERVQUAL model, and also provides empirical results that could help deciders of all levels deal with service quality in higher education, to take corrective actions when these are necessary.

Service-based organizations have to provide high quality services to their customers in order to be competitive. Service quality is defined as the overall assessment of a service by the customers (Eshghi et al., 2008) or the extent to which a service meets customer's needs or expectations (Asubonteng et al., 1996).

## 2. THEORETICAL FRAMEWORK

Gronroos developed in 1988 a model to measure service quality, identifying three components of service quality: the technical quality (relative to the outcome), the functional quality (how outcome is delivered) and the image quality (corporate image).

The technical quality component of products (as opposed to services) is easier to assess because of the tangibility characteristic (servicescape). Servicescape is defined as the physical facilities of a service

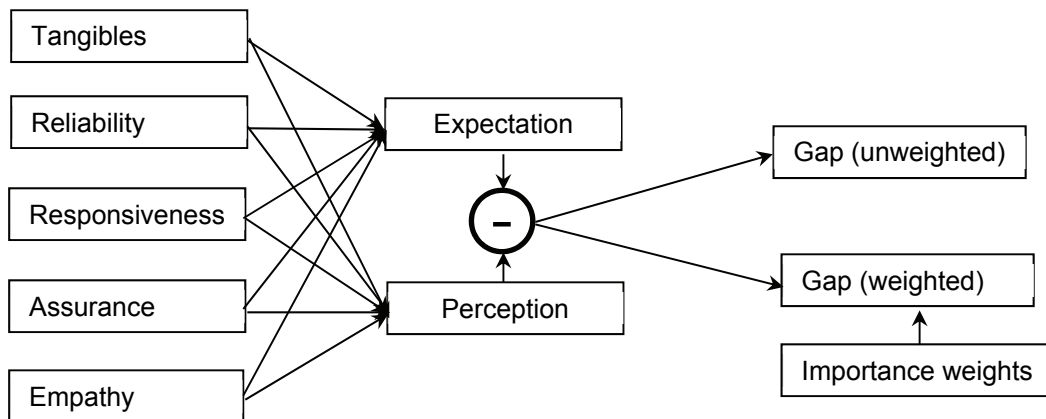
company and this concept is related to the SERVQUAL model. Servicescape plays an important role of influencing customers' evaluations of other factors determining perceived service quality, like empathy, reliability, responsiveness, and assurances (Reimer & Kuehn, 2004). Servicescape is more in service setting because of the unique characteristics of services (intangibility, perishability, inseparability and heterogeneity).

Researchers have tried to develop various models to measure the service quality, even though some claim it is hard to measure because of its intangibility which is hard to quantify (Eshghi et al., 2008, p.121); (Douglas & Connor, 2003, p.171). This is why as services are intangible in nature, evaluating the customer's perception of quality can be done through the interaction with the personnel offering services, (Magi & Julander, 1996, p.35). In this way, service provider could understand more exactly the consumers and identify their needs.

Parasuraman et al., (1988) developed the SERVQUAL model which is a multi-item scale developed to assess customer expectations and perceptions of service quality in service and retail businesses. The scale has five statements: tangibles, reliability, responsiveness, assurance and empathy. It bases on capturing the gap (the difference) between expectations and perceptions of customers which could be negative or positive, meaning that they are satisfied or unsatisfied with the service quality.

The model used in our analysis is presented in Picture 1 below.

**Picture 1:** Servqual model used



The SERVPERF model developed by Cronin & Taylor (1992), was derived from the SERVQUAL model by removing the expectations and measuring just the service quality perceptions just by evaluating the customer's feeling towards the service. SERVPERF model assesses customers experience based on the same attributes as the SERVQUAL model. This model does not provide information about how customers service preference so that service providers to make the necessary improvements.

Mittal and Lassar's SERVQUAL-P model reduces the original five dimensions down to four: Reliability, Responsiveness, Personalization and Tangibles. SERVQUAL-P includes the Personalization dimension, which refers to the social content of interaction between service employees and their customers (Bougoure & Lee, 2009, p.73).

Buttle (1996, p.8) makes mentions of several researchers that have used the SERVQUAL model in various industries (retailing, restaurants, banking, telecommunication industry, airline catering, local government, hotels, hospitals, and education). He further suggests that service quality has become an important topic because of its relationship to costs, profitability, customer satisfaction, customer retention and positive word of mouth and its performance.

### 3. METHODOLOGY AND DELIMITATION OF STUDY

We are focusing our study on higher education service provider. We are interested in evaluating how consumers perceive service quality in a university as a case study. This study is limited to one university from Romania and one faculty because our sample is drawn from those and we have easy access and contact with them. In this study, the word consumers' will refer to students at bachelor and master level. We did a quantitative study in which we collected data from our respondents using self-completion questionnaires. We used in our study on a model (SERVQUAL) which has been designed already (Fitzsimmons et al., 2015), we adapted it for a university and translated it in Romanian. Our choice of

respondents is students from the university as a study case and we choose those from the starting year and final year at bachelor level and also at master level. This enable as to do a comparative analysis also between students at different level and with more and less experience with university services.

The university has a population of approximately 14 000 students of which 800 of these are from the faculty studied. We sampled 84 students from this population.

Our questionnaire comprised of four parts. In the beginning of the questionnaire is the demographic part where the respondents are asked about their gender and level of education. The second and the fourth part of the questions are the main parts of the questionnaire that comprises 22 questions, each aimed at finding the respondents' opinions pertaining to the expectations (second part) and perceptions (fourth part) of university/faculty services. The statements express a desire of the respondents for a particular attribute of service quality and how much they think these statements apply to the university/faculty from their experience.

Between expectation (second part) and perceptions (fourth part) there is a part where respondents were asked to rank the five dimensions of the model used, so that we can have the importance weights to do also the weighted score for all the gaps and for the overall score.

In this study, we look to an average score because we are doing a particular case and we do not intend to carry out a comparative study involving other universities/faculties. We intend to know what students expect from a university/faculty and their perceptions of the service quality.

All the questions are multiple-choice questions and thus results are easy to tabulate and analyze. We used 7-point Likert-scale where the respondents are asked to select the most appropriate number that correspondents to extent to which they agree with a statement. The scales in our survey questions is 1 to 7 were "1" means "strongly disagree" and "7" means "strongly agree".

The questionnaire were tested to identify whether it is able to get the required data and to find out if was easy to understand (no vague and/or confusing questions). A group of students (15) were asked to test the questionnaire in the presence of the researchers. The respondents reported that there is no difficulty in answering the questions.

We did a quantitative research and this involve descriptive quantitative analyses. There are several software packages for the analysis of quantitative data, but for our purpose we use Microsoft Excel.

#### 4. EMPIRICAL RESULTS PRESENTATION AND ANALYSIS

The objective of the analysis include finding out how consumers perceive service quality and whether they are satisfied with service quality in university/faculty. This will fulfill the objectives of our study which are mainly describing empirical phenomena. The analysis involved mainly descriptive statistics to summarize data.

The main analysis involved the expectation, perception and gap score analysis. Descriptive statistics were applied to summarize means. In order to identify the gaps of service quality we calculate the perception minus expectation scores for each item and for each dimension and overall score (unweight and weight scores).

##### 4.1. Expectations and perceptions analysis

The results are presented in table 1 to 3.

**Table 1:** Gap scores for bachelor (1st year - B1 and 4th year (final year) - B4) and master (M) students

Dimension	Expectation			Perception			Gap			Score (unweighted)			Score (weighted)		
	B1	B4	M	B1	B4	M	B1	B4	M	B1	B4	M	B1	B4	M
Tangibles	6.07	6.38	6.10	5.17	4.69	4.97	-0.90	-1.69	-1.14	-0.16	-1.14	-0.31	-0.03	-0.19	-0.06
	5.69	6.19	5.14	5.34	5.06	4.90	-0.34	-1.13	-0.24						
	6.38	6.38	5.86	6.24	5.50	5.55	-0.14	-0.88	-0.31						
	4.66	5.63	4.62	5.38	4.75	5.07	0.72	-0.88	0.45						
Reliability	6.69	6.69	6.38	5.52	5.06	4.97	-1.17	-1.63	-1.41	-0.65	-1.70	-1.46	-0.13	-0.34	-0.37
	6.41	6.56	6.00	5.45	4.56	4.14	-0.97	-2.00	-1.86						
	6.07	6.28	5.66	5.62	4.56	4.45	-0.45	-1.81	-1.21						
	6.43	6.56	6.41	5.76	4.56	5.62	-0.67	-2.00	-1.79						
	5.62	6.13	5.83	5.62	5.06	4.79	0.00	-1.06	-1.03						
Responsiveness	6.21	6.56	6.28	5.38	5.00	4.83	-0.83	-1.56	-1.45	-0.73	-1.61	-1.65	-0.18	-0.40	-0.35
	6.24	6.63	6.21	5.62	4.88	4.59	-0.62	-1.75	-1.62						
	6.45	6.44	6.14	5.76	4.88	4.45	-0.69	-1.56	-1.69						

	5.86	6.00	5.79	5.07	4.44	3.97	-0.79	-1.56	-1.83						
Assurance	6.28	6.44	6.14	5.79	5.25	4.93	-0.48	-1.19	-1.21	-0.43	-1.22	-1.03	-0.09	-0.27	-0.21
	5.69	6.56	5.83	5.28	5.50	5.10	-0.41	-1.06	-0.72						
	6.28	6.31	5.93	5.41	4.56	4.69	-0.86	-1.75	-1.24						
	5.97	6.50	6.55	6.00	5.63	5.59	0.03	-0.88	-0.97						
Empathy	5.59	5.94	5.45	4.45	4.25	3.76	-1.14	-1.69	-1.69	-1.05	-1.48	-1.30	-0.17	-0.24	-0.22
	5.76	6.00	6.07	4.31	4.25	4.90	-1.45	-1.75	-1.17						
	4.93	5.44	4.72	4.38	4.38	3.69	-0.55	-1.06	-1.03						
	6.38	6.25	5.90	5.41	5.00	4.72	-0.97	-1.25	-1.17						
	6.03	6.19	5.71	4.90	4.56	4.28	-1.14	-1.63	-1.44						
Overall average gap score for bachelor and master students										-0.61	-1.43	-1.15	-0.12	-0.29	-0.24

**Table 2:** Overall gap scores

Dimension	Statement	Expectation	Perception	Gap	Score (unweighted)	Score (weighted)
Tangibles	S1	6.18	4.94	-1.24	-0.54	-0.09
	S2	5.67	5.10	-0.57		
	S3	6.21	5.76	-0.44		
	S4	4.97	5.07	0.10		
Reliability	S5	6.59	5.18	-1.40	-1.20	-0.03
	S6	6.32	4.72	-1.61		
	S7	6.00	4.88	-1.13		
	S8	6.47	5.31	-1.15		
	S9	5.86	5.16	-0.70		
Responsiveness	S10	6.35	5.07	-1.28	-1.33	-0.08
	S11	6.36	5.03	-1.33		
	S12	6.34	5.03	-1.31		
	S13	5.88	4.49	-1.39		
Assurance	S14	6.29	5.32	-0.96	-0.90	-0.19
	S15	6.03	5.29	-0.73		
	S16	6.17	4.89	-1.29		
	S17	6.34	5.74	-0.60		
Empathy	S18	5.66	4.15	-1.51	-1.28	-0.21
	S19	5.94	4.49	-1.46		
	S20	5.03	4.15	-0.88		
	S21	6.18	5.04	-1.13		
	S22	5.98	4.58	-1.40		
Overall average gap score					-1.06	-0.12

Table 3 present the demographic of respondents, gender and level of education. This profile is consider representative for university/faculty population.

**Table 3:** Personal profile of respondents

Characteristics		Percentage (%)
Gender	Male	35.1
	Female	64.9
Level of education	Bachelor	60.8
	Master	39.2

## 4.2. Expectations and perceptions analysis

The statements with the highest expectation scores were S5 (6.59) and S8 (6.47), but these scores are not very different from scores of other statements, meaning that consumers expectations are high.

The statements with the highest perception score were S3 (5.76) and S17 (5.74). There is no so much difference between the scores of perceptions but are generally lower than expectations.

Regarding comparative analysis for students at different level of education, we can say that, in general, final year students have higher expectation than first year and master students, and also they have lower perception than first year but a little higher than master students. All these can mean that first level students, because they don't have much experience and contact with the services provided by the university/faculty, they have lower expectation and higher perception. After a few years, in the final year and at master level, expectations get bigger and perceptions get lower.

## 4.3. Gap scores analysis

According to Parasuraman et al., (1985, p.48) the higher (more positive) the perception (P) minus expectation (E) score, the higher the perceived service quality and thereby leading to a higher level of customer satisfaction.

The gap scores may range from minimum -6 to maximum +6. The more perceptions are close to expectations, the higher the perceived level of quality. The largest gaps scores were for S6 (-1.61), S18 (-1.51) and S19 (-1.46).

In general, consumer expectation score exceeded the perception scores (except for: S4 for 1st year and master students – “Materials associated with the service (such as pamphlets or statements) will be visually appealing”, S9 for 1<sup>st</sup> year students – “Excellent university will insist on error free records” and S17 for 1st year students – “Employees of excellent universities will have the knowledge to answer customers' questions”). This resulted in a negative gap score (Perception – Expectation), except for S4 where a low positive gap were calculated (0.10). According to Parasuraman et al., (1988, p.30) it is however common for consumer's expectation to exceed the actual service perceived and this means that there is always room for improvement.

Overall service quality is measured by obtaining an average gap score of the SERVQUAL dimensions. The larger dimension gap scores are for responsiveness (-1.33), empathy (-1.28) and reliability (-1.20) and the smaller scores are for tangibles (-0.54) and assurance (-0.90). Weighted score present a different situation, where the largest unweighted scores are now the smallest ones, for responsiveness (-0.08) and reliability (-0.03), and larger weighted score (for tangibles) is now in the middle, the 3rd score (-0.09). This can be mean that there is a different situation when dimensions are equally important than when they are weighted based on their importance to consumers.

Further analysis can be made to analyze the situation when we ask also the university/faculty staff to weight the dimension, based on their approach to providing services and to see the differences to consumers' point of view.

## 4.4. Limitations and possibilities for further studies

Regarding gaps model, there is little evidence that customers assess service quality in terms of perception minus expectation gaps. SERVQUAL model focuses on the process of service delivery, not the outcomes of the service provider. Also, SERVQUAL's five dimensions are not universal, for all organizations and activity domains. There is a high degree of inter-correlation between the five dimensions. Customers' assessments of service quality may vary in different moments of time.

The results of this study cannot be generalized to a wide range of situations, but the methodology used here could be applied to similar situations. Carrying out this study on different universities and/or faculties could be a limitation because consumers' expectations and perceptions may differ.

We consider that the importance of this study exceed the limitations. And also it should be carried out frequently in order to monitor service quality and find out the gaps in customers' satisfaction and to make necessary adjustments accordingly.

A similar study could be conducted with a larger sample size so that results could be generalized to a larger population. Comparative analysis could be made in order to see if service-based organizations have improved their service quality over time.

Different methods and models are used to measure service quality and customer satisfaction in university/faculties (Pugna et al., 2009); (Taucean et al., 2011); (Maistor et al., 2011). Results from different models can be compare to see which ones offer more reliable data and can be used to improve service quality.

## 5. CONCLUSION

It is important for management of service based organizations to know how consumers perceive service quality and also to measure quality. Measuring service quality can help management provide important data that can be used to monitor and improve service quality. Using the SERVQUAL model to assess service quality enables management to better understand the dimensions of services and how they affect the quality and customer satisfaction. This will help them to identify dimensions and statements that have strengths and weaknesses and act accordingly.

Findings also show that consumers (students in our case) expected more than what they perceive and this lead to no satisfaction so university must act to improve all the dimensions/statements of service quality in order to get higher perceived service quality and customer satisfaction.

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