Analysis of the Five Dimensions of Service Quality Servqual (Survey of Private University Academic Staff Services in Indonesia)

¹Yayah Huliatunisa, ²Dadang Suhardan, ³Johar Permana, ⁴Diding Nurdin, ⁵Aan Komariah

¹²³⁴⁵Universitas Pendidikan Indonesia, Indonesia,

Abstract

Academic services in universities have a very important role. Good service quality from the university's perspective means setting requirements and specifications according to the needs of its customers, therefore the implementation of service quality is important to keep universities afloat and develop competitively. The occurrence of competition between universities in general is a positive sign. Because of this, universities are required to be able to provide the best service, so that their customers can feel part of the university. This research is a survey conducted on 310 students to measure the dimensions of service quality. Servoual is a model used to measure service quality, which consists of five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. This data is processed with the help of computer software and analyzed using the Exploratory Factor Analysis method. With this study, we will find a new group of variables that are fewer in number than the existing variables. based on the results of data processing and analysis research, it was found that the implementation of servoual was still relatively low, but the service quality was relatively running well. priority component 1 is Responsiveness, Empathy and Assurance, priority component 2 is Reliability and priority components 3 and 4 are Reliability, in terms of academic services in universities it is very clear that based on these results, it shows that the servqual components that become the first priority are Response, Empathy and Assurance followed by Tangible and Reliability.

Keywords: Quality Dimensions, Servqual, Academic Services, Private Universities.

INTRODUCTION

The form of academic services provided by universities has an important and unique role in community development. Universities are required to have a competitive advantage and build strong bonds by providing good quality services to their customers. Good service quality from the perspective of a university means setting requirements and specifications according to the needs of its customers. Thus, the implementation of service quality becomes important in universities to survive and develop competitively. Competition in college is generally a positive sign. This requires universities to be able to provide the best service, so that their customers can feel part of the university, thus graduates who are ready to work and able to compete can be produced. To ensure its survival, universities, whether in developed or developing countries, such as Indonesia, must deliberately implement mechanisms to assess, monitor, and improve service quality elements using appropriate measurement dimensions.

Higher education plays an important role for national development through the advancement of skilled human resources and intellectual communities (Alam et al., 2021). This goal is difficult to achieve because it is constrained by several factors, such as the factor of the students themselves who do not know, or are reluctant to know the institution as a whole in terms of academic services, or even the opposite is caused by employees, lecturers, and other staff (Mustamin et al., 2019). Another phenomenon that often appears in service practices at universities, especially in Indonesia, such as the quality of academic service staff of universities in Indonesia has not met the needs of students, and staff tend to carry out routine activities (Shavyrina et al., 2018). Meanwhile, student satisfaction is generally related to university staff (Pedro et al., 2018). Because providing the best service is the key to success and survive in the competition (Nguyen et al., 2020). So, efforts are needed to overcome the problems above. Such as, giving attention, certainty, and students and staff in every involving educational activity, research, and useful services, both for the university, its students, and the community (Jones et al., 2021), as well as implementing strategies by identifying through periodic surveys of students as the main customers, on the quality of the academic service staff they receive, using the dimensions of higher education service quality, such as Servqual. Servqual is the most widely used model to measure service quality in universities, which consists of five dimensions: tangibles, reliability, responsiveness, assurance, and empathy (Leonnard, 2018).

Although not much has been studied in depth, how the quality of academic service staff is identified based on student perceptions using the five dimensions of Servgual service quality, as the focus and objectives of this research are: 1) how to identify the quality of academic service staff based on student perceptions, 2) how Servqual works as a indicators of measuring the quality of academic service staff through 5 dimensions of service quality. However, it can be argued that in several countries research on how to identify student satisfaction with the service quality of a university through surveys has been widely carried out, such as; (Leonnard, 2018) who examined the factors of student satisfaction using Servqual service quality measurements in private universities in Indonesia. It is said (Azam, 2018) that a higher quality of service can result in a higher level of student satisfaction. In addition to students who are considered the main stakeholders, academic service staff receive high attention, because they have a direct influence on how students perceive the quality of academic services in Saudi Arabia. The opinion expressed (Adam, 2019) is that, to get responses about the quality of higher education from students of the Sudan University of Science and Technology, a selfadministered questionnaire adapted from the Servoual model is used. In line with (Nguyen et al., 2020) after investigating the relationship between student satisfaction and the quality of educational services to 2933 students from four in Central Hue universities Vietnam. confirming the results of his research, that student satisfaction with educational services has been considered as one of the most important strategic factors. important to attract students from higher education institutions around the world. Likewise (Alam et al., 2021) measures the level of student satisfaction and university reputation through service quality (SQ) at a private higher education institution (PriHEI) in Bangladesh. Primary data were collected from 270 students from the International Islamic University Chittagong (IIUC), Bangladesh. The results of the study conclude that although administrative services and facilities have a significant indirect effect on overall student satisfaction, the results of structural equation modeling (SEM) confirm that university reputation is directly related to overall student satisfaction.

Literature Review

Customer Concept in College

Educational institutions are recognized as a 'service industry' and have a more significant emphasis on meeting the expectations and needs of their customers, referred to as students (Afridi, 2016). Ishikawa was the first among TQM quality experts to introduce the importance of internal customers (Wang et al.,

2012). Anyone who is affected by the service or process used to provide services in an institution is a customer (Kwarteng, 2021). Customers are individuals who continuously come to the same place repeatedly to satisfy their desires by having a product or getting a service and satisfying the product or service because they are used to buying goods or services in one place (Bakrie et al., 2019; Lupiyoadi). & Hamdani, 2016).

In the context of higher education, customers are referred to as students. In shaping the certainty and originality of the education system, student satisfaction shows a significant part (Abd Aziz, 2014; Andleeb & Jusoh, 2020). Customers in the world of education are students or students receiving education, while college customers are students (Bakrie et al., 2019; Greenwood, M.S., Helen, 1994; Sakthivel et al., 2005). In universities, the customers are students (Bakrie et al., 2019; Sallis, 2012). Regarding students as customers is not a new concept (Douglas et al., 2008). In the past, students were seen as consumers of services; At first, students deliberately chose, chose and received services in private institutions, as partners in the learning process, students had been given the right to be considered as customers (Yorke, 1999). However, their perspective is not always acknowledged (Gerritsen-van Leeuwenkamp et al., 2018; Levin, 2000). This is remarkable because students are stakeholders in educational organizations, and according to the democratic structure of higher education, they have their own rights and responsibilities, and their voices must be heard (Gerritsen-van Leeuwenkamp et al., 2018; Levin, 1998; Svensson, G., & Wood, 2007). In addition, students have unique information and perspectives (Gerritsen-van Leeuwenkamp et al., 2018; Levin, 2000). College customers are divided into many different groups (Kanji et al., 1999; Kwarteng, 2021) with which they have a relationship with the educational process. They classify customers by location; internally, within the institution, and externally, outside the institution. They also classify customers according to the frequency of interactions the institution has with customers, into primary,

secondary, or tertiary customers, into internal or external customers. Furthermore, they consider that higher education products are educational services to students and depending on the role of students by the institution, students can be classified as internal or external.

Quality of Academic Service Staff and Competitive Advantage in Higher Education

In Indonesia, the number of private universities is the highest compared to public universities and other forms of higher education. The ability to predict the factors that are important in providing educational services to achieve student satisfaction and make them loyal to the university is very necessary (Leonnard, 2018). The increasing demands for higher education together with limited public resources have led to the introduction and growth of private universities (Mazumder, 2015; Mustamine et al., 2019). Private universities are under pressure not only because of the abilities and skills of students, but also because of the competitiveness of students in the labor market (Lawton, 1992; Mustamine et al., 2019). In order to thrive (Calvo-Porral et al., 2013), universities need to continue to satisfy their students (Pedro et al., 2018; Srikanthan & Dalrymple, 2007).

Service quality has become an interesting topic (Alam et al., 2021) in today's competitive world. Service quality is a means of achieving a defined benchmark, and service quality experts agree that it is one of the most viable and influential current trends for shaping business and promoting policy. Service quality is related to increased productivity and serves as a key facilitator for increased profitable word-ofmouth (Alves & Raposo, 2010) and increased competitive yield capacity (Alam et al., 2021), hence, companies with high level of service quality. will be able to meet customer needs while remaining economically competitive in their respective industries (Abbas, 2020) and can affect their success and sustainability.

Academic Service Quality Concept in Higher Education

The study of service quality began with research conducted by: Parasuraman et al., in 1980 which examined the quality of repair and maintenance services for retail banking tools, securities brokers, long-distance telephone, and credit cards (Chandra et al., 2019; Deming & Edwards, 1982; Zeithaml et al., 1990), thus inspiring many other researchers to investigate this concept in various service areas, such as Education. Quality in educational services is complex in its aspects, largely undefined and unmeasured (Adam, 2019). Perception of quality as a consumer's assessment of the overall experience or excellence of an entity (Onditi & Wechuli, 2017; Parasuraman, A. et al., 1985; Zammuto et al., 1996). In the long term, quality should be seen as practice, use, and experience (Kwarteng, 2021).

The meaning of quality varies from person to person and situation to situation in terms of judgments, experiences and feelings (Khan et al., 2020; Kumar et al., 2010). There is no correct definition of quality, but quality should be seen as a 'stakeholder-relative' concept (Harvey & Green, 1993; Mastoi et al., 2019).

Literature/experts/researchers indicate that service quality is an antecedent to overall satisfaction for students (Arambewela & Hall, 2006; Cardona & Bravo, 2012; Mwiya et al., 2017; Naik et al., 2010; Parasuraman et al., 1994; Zineldin, 2007). So that service quality reflects a measure that states how well the services provided can match customer expectations (Gul et al., 2019). Measuring student satisfaction is a strategic thing for universities (Kammur, 2017). Universities need information and feedback on the quality of academic services (Mwiya et al., 2017). Academic services, which are sometimes referred to as curricular services, include: academic regulations, lectures, curriculum, academic guidance/consultation, practicum, final project, evaluation, including lecture aids such as libraries, OHP, laboratories. Given the many types of academic services that must be met, in providing these academic services, it certainly involves many influential elements

who are expected to be committed and of high quality. These elements include elements of academic staff, namely lecturers, elements of academic support staff, namely laboratory assistants and academic administrative staff.

Dimensions of Service Quality Servqual

Until now, although there is no agreement on provisions for measuring the quality of higher education services (Chen, I. S., Chen, J. K., & Padró, 2017) researchers have tried to adapt existing concepts to suit the characteristics of universities in Indonesia.

Despite the lack of consensus on measurement methodologies for service quality in higher education, the Servqual framework has been widely recognized and applied to assess quality from a student perspective (Abili et al., 2012; Mwiya et al., 2017; Saadati, 2012; Seymour, 1992; Twaissi & Al-Kilani, 2015). In research (Silva et al., 2017) the Servqual scale has been used or mentioned in 495 articles with the oldest article dating from 1988 and the newest article dating from 2016. In general, the most commonly used model to measure service quality in educational services is Servqual (Leonnard, 2018; Parasuraman et al., 1998). Servgual is the most widely used model. The use of Servqual in educational services has been extensively demonstrated in previous studies (Browne et al., 1998; Chui & bin Ahmad, 2016; de Jager & Gbadamosi, 2013; Leonnard, 2018; Naidu & Derani, 2016; Oldfield & Baron, 2000; Zammuto et al., 1996). To assess service quality in universities, several studies have used the Servqual (Service Quality) model developed by (Mwiya et al., 2017; Parasuraman et al., 1998). Servqual has been used successfully in higher education research (Chawla & Sharma, 2014). Chawla & Sharma further observed that Servgual has been managed by researchers who investigate service quality in various industries including higher education by assessing expectations and perceptions with various determinants of service quality (Chawla & Sharma, 2014).

Quality is measured based on mastery of science and technology, as well as noble,

active, creative and innovative attitudes and character (Mustamin et al., 2019).

However, quality can be measured in different ways (Nasim et al., 2019; Surman & Tóth, 2019) using a different approach at each operational level, because service quality is interpreted through different dimensions seen from the (primary) stakeholder aspect involved. different. To investigate this issue including the voices of students and academics as key stakeholders (having considerable influence at each level), a questionnaire was applied and focus group discussions were conducted.

Despite the awareness of its importance, researchers and scholars find it difficult to properly define and measure the concept of service quality due to its unique Servqual model (Butt & de Run, 2010; Khan et al., 2020; Nadiri et al., 2009), however, several previous studies concluded that the Servgual model is suitable for assessing college performance (Abdullah, 2006; Ahmed & Masud, 2014; Brochado, 2009; D'Uggento et al., 2016; Rowley, 1996). Service quality can be measured by focusing on five main dimensions, reliability, assurance, tangibles, namely. empathy and responsiveness (Mwiya et al., 2017; Parasuraman et al., 1998). The modified service quality dimension models are reliability, responsiveness, assurance, empathy and physical evidence (Ariyanto et al., 2020; Van Truong et al., 2016). The 5-dimensional model is defined as follows: Reliability is evidence of the ability to perform the promised service appropriately and appropriately; and responsiveness reflects the readiness to help customers and provide prompt service; Empathy refers to the level of care and concern given by the Organization (company) to its customers; Assurance is the breadth of knowledge and courtesy of employees and their ability to increase customer confidence; Tangibles are physical facilities, equipment, officers and means of communication (Kundi et al., 2014); (Ariyanto et al., 2020).

Thus (Twum & Peprah, 2020) in universities, the five Servqual frameworks are more applicable in assessing service quality because they have been tested as the surest instrument for many years.

Methodology

Research Design

This cross-sectional survey research design will review the results of student perceptions of the quality of academic service staff in universities using the five dimensions of service quality Servqual. This survey can help identify the individual beliefs and attitudes of current students about how the quality of the academic service staff they receive is a behaviour, so that the research results will provide useful information as a measure of success. This design is chosen to administer a survey on a sample or on an entire population of people to describe current attitudes, opinions or practices by collecting or compiling numbered data using web-based questionnaires at a single point in time. The web-based questionnaire is a survey instrument to collect available data (Creswell & Clark, 2017).

Participants

The survey was conducted on 310 students in semesters 1-7 in five study programs at a private university in Banten Province, Indonesia for the 2021/2022 academic year.

Determination of student element participants in this study, the researcher determines, administers and analyses a target population (population target) or sampling frame, namely the total population as much as the number of data or student lists that the researcher obtained Faculty, which from the consists of undergraduate Nursing Study Program students S-1 Midwifery, Nursing Profession, Midwifery Profession, and Midwifery D-III Study Program, the number of active students is 703 in the 2021/2022 Academic Year. In determining the amount, students are assumed to have obtained academic service experience of at least 1 semester.

Respondence Characteris	tic (N=310)	Frequency	Percent
Study Program	Bachelor of Nursing	150	48.4
	Bachelor of Midwife	87	28.1
	nurse	22	7.1
	Midwife Profession	43	13.9
	Diploma 3 Midwife	8	2.6
Semester/Level	< SMT 2	167	53.9
	SMT 3-4	63	20.3
	SMT 5-6	45	14.5
	SMT 7-8	31	10.0
	> SMT 8	4	1.3
Gender	Male	27	8.7
	Female	283	91.3
Age	< 19 years old	198	63.9
	20-22 years old	71	22.9
	> 22 years old	41	13.2

Table 1	Respondence	Characteristic
racie i	nesponactice	Chen derer isite

Data source: Primary Data

Strategies to drive high rates of return. The researcher also considers using incentives to respondents encourage to return the questionnaires for 20 people from the top row of respondents in filling out and returning the questionnaires. To anticipate bias response, the researcher took the wave analysis procedure, which is a procedure to check the bias response in which the researcher grouped returns according to intervals (every week/within 2 weeks), and rechecked with the aim of seeing whether the answers to several questions were answered. selected changed from the first and second week or the end of the study.

Ethical Considerations

Ethical issues that may occur in the process will be anticipated to the maximum, such as researchers understanding and studying in advance the procedures and rules that may apply to the object of research, as well as through the delivery of information such as; the information provided will be used for publication of scientific articles, previous research problems have been understood by the respondent, clear instructions for filling out, filling time, number of instruments and pages, short and clear question sentences, ensuring the confidentiality of answers that are equipped with a consent sheet, which contains consent to be an informant. Data Collection

The research data was collected using the Google Form application to design, collect, analyze survey data, using 4 response points in the Likert data format without a middle category. The optimal number of scale categories depends on the specific content and function of the measurement conditions (Friedman et al., 1981). The use of a scale without a middle category is more capable of reducing social desirability than using a middle category (Garland, 1991). Using 4 answer choices with a measurement scale: 4-to Strongly Agree (SA), 3- to Agree (A), 2-to Disagree (DA), and 1-to Strongly Disagree (SD).

Data Analysis

The survey results from the collected questionnaires, then data entry was carried out using the help of the SEM model application with the Exploratory Factor Analysis approach. With this study, we will find a new group of variables that are fewer in number than the existing variables, presented with graphs/tables that represent percentages. Decision-making and the meaning of the percentage results are then analyzed and organized in a systematic way, converted in actual and carefully, and concluded in the form of narrative conclusions. This step is used to systematically describe phenomena, facts or characteristics of a particular population or a particular field, in terms of an actual and accurate field, not only describing (analytical), but also integrating, not only classifying, but also organization (Nurdin & Hartati)., 2019).

Results and Discussion

The results of this study are presented below:

Descriptive Test

The results of the descriptive test can be reanalyzed in the following table:

Table 2. Implementation of Servqual in	ı
Academic Services	

Respondent's		
Answer Category	Frequency	Percent
36-57 Very less	1	.3
58-94 Less	132	42.6
95-116 Good	129	41.6
117-138 Excellent	48	15.5
Total	310	100.0

Based on table 2 above, the implementation of Servqual in academic services at Private University 42.6% still shows the category of less/not optimally implemented, and 41.6% of Servqual implementation in Private University has been going well, this data shows the application of SERQUAL which consists of tangibles, reliability, responsiveness, assurance, and empathy is still relatively not running optimally. For more details can be analyzed again

Table 3. Academic Service Quality Level

Respondent's		
Answer Category	Frequency	Percent
5-9 Very Less	2	.6
10-14 Less	26	8.4
15-19 Good	205	66.1
20-24 Excellent	77	24.8
Total	310	100.0

However, Table 3 above shows that the level of service quality that occurs at Private Univeristy is relatively running well, this shows that in some respects the level of academic service quality, for example, in the ease and availability of service counter access, speed and accuracy of service, honesty of officers. service, officer's concern for student problems and officer's skill in problem solving generally show good quality.

Table 4. Quality of Academic Service Activities

NO	Variable	Indicator	Code	Respo	ndent's A N=	nswer (310	Category
				SD	DA	Α	SA
6	Y Variable : Quality of	1. Easiness and availability of service counter access	KKLA_1	1.9	7.4	49.0	41.6
	Academic Service	2. Speed and accuracy of service	KKLA_2	1.3	2.3	48.7	47.7
	Activities	3. Honesty of service personnel	KKLA_3	1.0	1.3	54.8	42.9
		4. The officer's concern for student problems	KKLA_4	1.6	3.2	51.9	43.2
		5. Officer skills in problem solving	KKLA_5	1.9	3.9	46.5	47.7

Factor Analysis Assumption Test

The Kaisar-Mayer-Olkin (KMO) test was used to determine whether the factors in the study

were valid or not and to determine whether the data used could be further analyzed by factor analysis. The table below shows the results of the KMO test and Bartlett's Test.

Component		Values
Kaiser-Meyer-Olkin Measure	.940	
Bartlett's Test of Sphericity	Approx. Chi-Square	4585.271
	df	435
	Sig.	.000

Table 5. KMO Test and Bartlett's Test

The test results show the KMO and Bartlett's Test value is 0.940 because the value is above 0.5 and the significance value is 0.000 <0.05,

the existing variables and samples can be analyzed further by factor analysis.

NO	Variable	Indicator	Code	Anti-image Correlation	Comunal Extraction Value
1	Variable X1 Tangible	1. The officer greets / greets in a friendly manner	T1_1	.935	.541
		2. Officers are neatly dressed and well-groomed when serving students	T2_2	.954	.462
		3. Officers are easy to find according to the intent and purpose of the service	T3_3	.967	.589
		 Easiness and availability of service counter access 	T4_4	.943	.583
		5. Conformity between the instructions of the counter and the officers	T5_5	.940	.590
		6. There is a flow and procedure for each service	T6_6	.964	.654
		7. Avail clear schedule and service time	T7_7	.949	.628
		8. Completeness of technology and equipment used by officers	T8_8	.941	.546
		9. A complete computer with chairs is provided for easy access to fast services	T9_9	.946	.553
		10. Cleanliness and comfort of the service room	T10_10	.939	.512
2	Variable X2 Responsiven	11. Officers always ask what students need	R11_1	.955	.337
	ess	12. The staff welcomes students with a friendly smile	R12_2	.933	.559
		13. Officers provide clear information for the type of each service	R13_3	.954	.599
		14. Officers provide services to students on existing problems	R14_4	.930	.570
		15. Willingness of officers to help students	R15_5	.937	.512
3	Variable X3 Reliability	16. Readiness of officers in serving students	RL16_1	.906	.697
		17. Reliability of services provided by officers	RL17_2	.903	.639
		18. Punctuality provided by officers	RL18_3	.923	.595
		19. Fairness in service comes in the order it comes	RL19_4	.918	.632
		20. The services provided are always resolved quickly	RL20_5	.936	.600
		21. Officers are willing to provide and explain unclear information	RL21_6	.923	.605
		22. Minimum error in providing service	RL22_7	.897	.471
4	Variable X4 Emphaty	23. The officer's concern for student problems	E23_1	.937	.405
	P-1003	24. Institutional support for student needs	E24_2	.931	.581

Table 6. Anti Image Corellation and Communal Extraction Value

		25. When helping, the officer's explanation is easy to understand	E25_3	.947	.526
		26. If the service provided is not completed immediately, the service picks up promise is always appropriate and fulfilled	E26_4	.958	.503
		on time			
-	Variable X5	27. Ability and knowledge of service	A27_1	.944	.581
5	Assurance	personnel			
		28. Polite attitude from service	A28_2	.958	.481
		personnel			
		29. Honesty of service personnel	A29_3	.937	.520
		30. Every service requested is always fulfilled	A30_4	.949	.445

So, from the results of the analysis, it can be concluded that the greater the communalities of a variable, the stronger the relationship with the factors formed.

Total Variances Explained

Total Variances Explained shows the percentage of total variance that can be explained by the diversity of the formed Table 7. Total factors. The determination of many factors can be seen from the eigenvalues of the thirty indicators analyzed. The eigenvalues of a factor show the amount of variance, as the contribution of the related factors. The factor used in this approach is a factor with Eigenvalues > 1. If the Eigenvalues < 1, the factor cannot be included in the model.

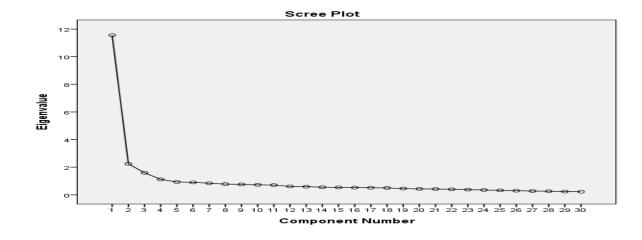
able 7.	Total	Variance	Expl	lained

			Tot	tal Vari	ance Expla	ained			
				Extra	ction Sum	s of Squared	Rot	ation Sum:	s of Squared
	1	nitial Eige	envalues		Loadi	ngs		Loadi	ings
		% of			% of			% of	
Componen		Varianc	Cumulative		Varianc	Cumulative		Varianc	Cumulative
t	Total	е	%	Total	e	%	Total	е	%
1	11.55	38.531	38.531	11.55	38.531	38.531	5.52	18.403	18.403
	9			9			1		
2	2.244	7.479	46.011	2.244	7.479	46.011	5.45	18.193	36.596
							8		
3	1.595	5.316	51.327	1.595	5.316	51.327	3.48	11.614	48.210
							4		
4	1.116	3.720	55.047	1.116	3.720	55.047	2.05	6.837	55.047
							1		

Extraction Method: Principal Component Analysis.

Initial Eigenvalues are always ordered from the largest to the smallest, with the criteria that the Initial Eigenvalues number below 1 is not used in calculating the number of factors formed because they cannot automatically be factors. The test results above show that the factors that can be formed are 4 variations of factors because they have an eigenvalue > 1. Factor 1 has an eigenvalue of 11.559%, factor 2 has an eigenvalue of 2.244%, factor 3 has an eigenvalue of 1.595% and factor 4 has an eigenvalue of 1.595%. eigenvalue of 1.116%.

Scree Plot



This figure explains the basic sum of factors in graphical form. It can be seen from the axis of component number 1 to 2 and 2 to 3 then 3 to 4 the direction of the graph is decreasing. Then, the line number 5 to 6 and so on also decreases and is already below the Eigenvalues 1. This shows that component numbers 1, 2, 3 and 4 are the best for summarizing the 30 existing

indicators. The scree plot result is always the same as the factor formation process in the total variance explained table and the two are complementary. If the total variance explained in the table explains the basic factors formed in the calculation of numbers, then the scree plot explains in graphical form.

Table 8. K	Rotated Con	ponent.	Matrix
------------	-------------	---------	--------

	INDICATORS	Rotated Component Matrix ^a			
CODE		COMPONENTS			
		1	2	3	4
T1_1	The officer greets / greets in a friendly manner	.361	.625	.128	056
T2_2	Officers are neatly dressed and well- groomed when serving students	.275	.584	004	.213
T3_3	Officers are easy to find according to the intent and purpose of the service	.317	.607	.215	.271
T4_4	Easy and availability of service counter access	.104	.704	.176	.214
T5_5	Conformity between the instructions at the counter and the officers	.166	.604	.109	.431
T6_6	There are flows and procedures for each service	.267	.733	.130	.168
T7_7	Available with clear schedule and service time	.329	.701	.102	.135
T8_8	Completeness of technology and equipment used by officers	.211	.702	.060	.077
T9_9	A computer complete with chairs is provided for easy access to fast services	.160	.669	.273	068
T10_10	Cleanliness and comfort of the service room	.213	.616	.185	229
R11_1	Officers always ask what students need	.419	.312	.222	.122
R12_2	The staff welcomes students with a friendly smile	.675	.314	.056	.033
R13_3	Officers provide clear information for the type of each service	.618	.437	.105	.119
R14_4	Officers provide services to students on existing problems	.654	.289	.009	.240

D15 5	Willing and officers to hole students	.624	220	021	250	
	Willingness of officers to help students	.261	.239 .164	.021 .258	.256 .732	
KL10_1	Readiness of officers in serving students	.201	.104	.238	.134	
DI 17 4	Service reliability provided by officers	.174	.151	.408	.647	
	Punctuality provided by the officer	.174	.131	.408	.395	
	Justice in service comes in the order it	.130	.174	.745	.057	
KL19_4	comes	.199	.164	./45	.037	
RL20_5	The services provided are always resolved quickly	.254	.234	.653	.233	
RL21_6	• Officers are willing to provide and	.241	.160	.722	.008	
	explain unclear information					
RL22_7	Minimum error in providing service	.148	005	.567	.358	
E23_1	The officer's concern for student	.414	.312	.349	.120	
	problems					
E24_2	Institutional support for student needs	.658	.287	.242	.085	
E25_3	When helping, the officer's explanation	.554	.316	.266	.220	
	is easy to understand					
E26_4	If the service provided is not	.591	.264	.215	.195	
	completed immediately, the service					
	pick up promise is always appropriate					
	and fulfilled on time					
A27_1	Service personnel skills and	.597	.180	.435	.059	
	knowledge					
A28_2	Polite attitude from service personnel	.643	.120	.197	.120	
A29_3	Honesty of service personnel	.627	.130	.329	.043	
A30_4	Every service requested is always	.567	.116	.314	110	
	fulfilled					
Extraction Method: Principal Component Analysis.						
	Rotation Method: Varimax with Kaiser Normalization. ^a					
a. Rotation converged in 7 iterations.						
Data from table 8 as a result of the matrix						
component of the indicators studied are						

summarized in table 9 as follows:

 Table 9. Service components priority 1 priority 2 priority 3 and priority 4 academic service activities

COMPONENT	TOTAL ESTABLISHING FACTORS	VARIABLE INDICATOR NAME	POSITION IN SERVQUAL
PRIORITY SERVICE COMPONENTS 1	<u>13</u>	R11_1 The officer always asks what students need R12_2 The staff greets students with a friendly smile/0.675 R13_3 The officer provides clear information for the type of each service R14_4 Officers provide services to students regarding existing problems/0.654 R15_5 Willingness of officers to help students E23_1 The officer's concern for student problems E24_2 Institutional support for student needs/0.658 E25_3 When helping, the staff's explanation is easy to understand E26_4 If the service provided is not completed immediately, the appointment for service collection is always appropriate and fulfilled on time	RESPONSE EMPHATY ASSURANCE
		A27_1 Ability and knowledge of service	

		personnel A28_2 Polite attitude of service	
		personnel/0.643	
		A29_3 Honesty of service personnel	
		A30_4 Every service requested is always	
		fulfilled.	
PRIORITY SERVICE COMPONENTS 2	10	 T1_1 The officer greets / greets in a friendly manner T2_2 Officers are neatly dressed and well-groomed when serving students T3_3 Officers are easy to find according to the intent and purpose of the service T4_4 Ease and availability of service counter 	TANGIBLE
		access/0.704 T5_5 Conformity between the instructions of the counter and the staff T6_6 Available flow and procedure for each	
		service/0.733 T7_7 Clearly available service schedule and time/0.701 T8_8 Completeness of technology and	
		equipment used by officers/0.702 T9_9 A computer complete with chairs is provided for easy access to fast services T10_10 Cleanliness and comfort of service	
PRIORITY	5	room RL18_3 Punctuality provided by officers	RELLIABILITY
SERVICE COMPONENTS		RL19_4 Justice in service in order of arrival/0.745	
3		RL20_5 The services provided are always resolved quickly/0.653	
		RL21_6 Officer willing to provide and explain information that is not clear/0.722 RL22_7 Minimum error in providing service	
PRIORITY SERVICE COMPONENTS 4	2	RL16_1 Readiness of officers in serving students/0.732 RL17_2 Reliability of services provided by officers/0.647	RELIABILITY

Table 10. Component Transformation Matrix

Components Transformation Matrix						
Components	1	2	3	4		
SERVICE COMPONENT 1	.628	.599	.418	.269		
SERVICE COMPONENT 2	.076	679	.667	.297		
SERVICE COMPONENT 3	760	.397	.307	.413		
SERVICE COMPONENT 4	150	.151	.535	818		

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Based on table 10, it can be seen that component 4 has a higher transformation matrix value than service component 1, 2 and 3, this shows that component 4 does not have a big effect on improving academic services at

PTS, because the position is at the level of the fourth service component.

Conclusion

The measurement indicators in this servgual service survey research cover five aspects, namely physical evidence (tangibles), reliability, responsiveness, assurance and assurance, and empathy. Comprehensively, the results of the study show that the percentage of servoual implementation with these 5 aspects is relatively still not showing optimal application academic services. however. in the achievement of academic service quality in private universities is relatively showing towards improvement.

Based on the results of research on five indicators, it shows that priority component 1 is Response, Empathy and Assurance, priority component 2 is tangible and priority component 3 and 4 is Reliability, in terms of academic services in universities it is very clear. the main priority for creating good academic services is Response, Empathy and Assurance, followed by Tangibel and reliability both from its officers and from the PTS Institute itself. Meanwhile, the tangible and reliability aspects in this case still need improvement and optimization.

However, overall, the quality of academic services at existing higher education institutions is relatively good, where the majority of students have given the perception that the quality of academic services at private universities currently running is relatively good and previously.

The SERVQUAL survey is only one of many institutional evaluation methods in measuring agency service standards, so that in the future it is hoped that an evaluation with a more indepth coverage of educational institutions can be created in order to create a priority formulation in creating quality academic services, especially in private universities.

Acknowledgment

The authors would like to express their deepest gratitude to the Education Fund Management Institute (LPDP) for sponsoring their master's and doctoral studies, as well as supporting the publication of this article, and the University of Muhammadiyah Tangerang for providing recommendations for doctoral studies to researchers.

Reference

- Abbas, J. (2020). HEISQUAL: A Modern Approach to Measure Service Quality in Higher Education Institutions. Studies in Educational Evaluation, 67, 100933. https://doi.org/10.1016/ j.stueduc.2020.100933
- [2] Abd Aziz, Z. T. B. (2014). A Development of Model for Service Quality, Student Satisfaction, Student Loyalty and Perceived Value in the University of Nottingham, Malaysia.
- [3] Abdullah, F. (2006). Measuring Service Quality in Higher Education: HEdPERF versus SERVPERF. Marketing Intelligence & Planning, 24(1), 31–47.
- [4] Abili, K., Thani, F. N., & Afarinandehbin, M. (2012). Measuring University Service Quality by Means of SERVQUAL Method. Asian Journal on Quality, 13, 204–211. https://doi.org/10.1108/159826812112877 66
- [5] Adam, A. I. A. (2019). Service Quality Measurement In Higher Education: The Case of Sudan University of Science and Technology. Journal of Total Quality Management, 16(2), 1–14.
- [6] Afridi, S. A. (2016). Measurement of Service Quality Gap in the Selected Private Universities/Institutes of Peshawar using SERVQUAL Model. City University Research Journal, 6(1), 61–69.
- [7] Ahmed, S., & Masud, M. M. (2014). Measuring Service Quality of a Higher Educational Institute Towards Student Satisfaction. American Journal of Educational Research, 2(7), 447–455.
- [8] Alam, M. M., Alauddin, M., Sharif, M. Y., Dooty, E. N., Ahsan, S. M. H., & Chowdhury, M. M. (2021). Students'

Satisfaction and University Reputation through Service Quality in Private Higher Educational Institutions in Bangladesh. The Journal of Asian Finance, Economics and Business, 8(9), 0091–0100. https://doi.org/10.13106/jafeb.2021.vol8.n 09.0091

- [9] Alves, H., & Raposo, M. (2010). The Influence of University Image on Student Behaviour. International Journal of Educational Management, 24(1), 73–85.
- [10] Andleeb, S., & Jusoh, A. (2020). Institutional Internal Quality Assurance Assessment Practices and Student Satisfaction. Journal of Public Value and Administrative Insight, 3(3), 117–144. https://doi.org/10.31580/JPVAI.v3i3.1647
- [11] Arambewela, R., & Hall, J. (2006). A Comparative Analysis of International Education Satisfaction using SERVQUAL. Journal of Services Research, 6(Special), 141–163.
- [12] Ariyanto, E., Aima, M. H., & Sari, A. N. M. (2020). Analysis of the Effect of Service Quality Dimensions on Student Satisfaction in Master of Management of Mercu Buana University. IOSR Journal of Business and Management (IOSR-JBM), 22(6), 05–13. https://doi.org/10.9790/487X-2206070513
- [13] Azam, A. (2018). Service Quality Dimensions and Students' Satisfaction: A study of Saudi Arabian Private Higher Education Institutions. European Online Journal of Natural and Social Sciences, 7(2), pp-275. http://www.europiansciences.com
- [14] Bakrie, M., Sujanto, B., & Rugaiyah, R.
 (2019). The Influence of Service Quality, Institutional Reputation, Students' Satisfaction on Students' Loyalty in Higher Education Institution. International Journal for Educational and Vocational Studies, 1(5), 379–391. https://doi.org/DOI: https://doi.org/10.29103/ijevs.v1i5.1615
- [15] Brochado, A. (2009). Comparing Alternative Instruments to Measure Service Quality in Higher Education. Quality Assurance in Education, 17(2), 174–190.
- [16] Browne, B. A., Kaldenberg, D. O., Browne, W. G., & Brown, D. J. (1998). Student as Customer: Factors Affecting Satisfaction and aAssessments of

Institutional Quality. Journal of Marketing for Higher Education, 8(3), 1–14. https://doi.org/10.1300/J050v08n03_01.

- [17] Butt, M. M., & de Run, E. C. (2010). Private Healthcare Quality: Applying a SERVQUAL Model. International Journal of Health Care Quality Assurance, 23(7), 658–673.
- [18] Calvo-Porral, C., Lévy-Mangin, J.-P., & Novo-Corti, I. (2013). Perceived Quality in Higher Education: an Empirical Study. Marketing Intelligence & Planning, 31(6), 601–619.
- [19] Cardona, M. M., & Bravo, J. J. (2012). Service Quality pPerceptions in hHigher Education Institutions: the Case of a Colombian University. Estudios Gerenciales, 28(125), 23–29. https://doi.org/10.1016/S0123-5923(12)70004-9
- [20] Chandra, T., Hafni, L., Chandra, S., Purwati, A. A., & Chandra, J. (2019). The Influence of Service Quality, University Image on Student Satisfaction and Student Loyalty. Benchmarking: An International Journal, 26(5), 1533–1549. https://doi.org/10.1108/BIJ-07-2018-0212
- [21] Chawla, M., & Sharma, T. (2014). Service Higher Education: Quality in Α Comparative Study of Management and Education Institutions. **NMIMS** Management Review, 59-72. 24. https://www.researchgate.net/publication/2 83503170
- [22] Chen, I. S., Chen, J. K., & Padró, F. F. (2017). Critical Quality Indicators of Higher Education. Total Quality Management & Business Excellence, 28(1–2), 130–146. https://doi.org/10.1080/14783363.2015.10 50178
- [23] Chui, T. B., & bin Ahmad, M. S. (2016). Evaluation of Service Quality of Private Higher Education using Service Improvement Matrix. Procedia-Social and Behavioral Sciences, 224, 132–140. https://doi.org/doi:10.1016/j.sbspro.2016.0 5.417
- [24] Creswell, J. W., & Clark, V. L. P. (2017).Designing and Conducting Mixed Methods Research. Sage publications.
- [25] D'Uggento, A. M., Manca, F., & Girone, F. (2016). Student Satisfaction and Quality of Education at the University of Bari.

13th International Conference of ASECU, 577–584.

- [26] de Jager, J., & Gbadamosi, G. (2013). Predicting Students' Satisfaction Through Service Quality in Higher Education. The International Journal of Management Education, 11(3), 107–118. https://doi.org/10.1016/j.ijme.2013.09.001.
- [27] Deming, W. E., & Edwards, D. W. (1982). Quality, Productivity, and Competitive Position. Massachusetts Institute of Technology, Center for advanced engineering study
- [28] Douglas, J., McClelland, R., & Davies, J. (2008). The Development of a Conceptual Model of Student Satisfaction with their Experience in Higher Education. Quality Assurance in Education, 16(1), 19–35. https://doi.org/10.1108/096848808108483 96
- [29] Friedman, H. H., Wilamowsky, Y., & Friedman, L. W. (1981). A Comparison of Balanced and Unbalanced Rating Scales. The Mid-Atlantic Journal of Business, 19(2), 1–7.
- [30] Garland, R. (1991). The Mid-Point on a Rating Scale: Is it Desirable. Marketing Bulletin, 2(1), 66–70.
- [31] Gerritsen-van Leeuwenkamp, K. J., Joosten-ten Brinke, D., & Kester, L. (2018). Developing Questionnaires to Measure Students' Expectations and Perceptions of Assessment Ouality. Cogent Education, 5(1), 1464425. https://doi.org/10.1080/2331186X.2018.14 64425
- [32] Greenwood, M.S., Helen, J. (1994). Total Quality Management for School. Wiltshire: Chassell.
- [33] Gul, S., Jan, S., & Shah, F. A. (2019). The impact of Service Quality on Students Satisfaction in Higher Education Institutes of Khyber Pakhtunkhwa. Review of Economics and Development Studies, 5(1), 217–224. https://doi.org/10.26710/reads.v5i1.536
- [34] Harvey, L., & Green, D. (1993). Defining Quality. Assessment & Evaluation in Higher Education, 18(1), 9–34.
- [35] Jones, E., Leask, B., Brandenburg, U., & de Wit, H. (2021). Global Social Responsibility and the Internationalisation of Higher Education for Society. Journal of Studies in International Education, 25(4), 330–347.

https://doi.org/10.1177/102831532110316 79

- [36] Kammur, A. A. (2017). The Quality of Educational Services and its Effect on Student's Satisfaction an Empirical Study on Students of Alrifaq Private University in Libya. Global Journal of Commerce and Management Perspective, 6(1), 1–10.
- [37] Kanji, G. K., Malek, A., & Tambi, B. A. (1999). Total Quality Management in UK Higher Education Institutions. Total Quality Management, 10(1), 129–153. https://doi.org/10.1080/0954412998126
- [38] Khan, S., Gul, S., Nasir, N., & ul Hassan, S. W. (2020). Examining Students' Perception about Quality of Academic & Administrative Services in Pakistani Universities. PalArch's Journal of Archaeology of Egypt/Egyptology, 17(4), 3585–3611.
- [39] Kumar, M., Kee, F. T., & Charles, V. (2010). Comparative Evaluation of Critical Factors in Delivering Service Quality of Banks: An Application of Dominance Analysis in Modified SERVQUAL Model. International Journal of Quality & Reliability Management, 27(3), 351–377.
- [40] Kundi, G. M., Khan, M. S., Qureshi, Q., Khan, Y., & Akhtar, R. (2014). Impact of Service Quality on Customer Satisfaction in Higher Education Institutions. Industrial Engineering Letters, 4(3), 23–28.
- [41] Kwarteng, A. J. (2021). An assessment of Outcome Criteria Associated with the iImplementation of TQM in a Higher Education Institution in Ghana. Cogent Education, 8(1), 1859198. https://doi.org/10.1080/2331186X.2020.18 59198
- [42] Lawton, S. B. (1992). Why Restructure?: an International Survey of the Roots of Reform. Journal of Education Policy, 7(2), 139–154. https://doi.org/10.1080/026809392007020 2
- [43] Leonnard, L. (2018). The Performance of SERVQUAL to Measure Service Quality in Private University. Journal on Efficiency and Responsibility in Education and Science, 11(1), 16–21. https://doi.org/10.7160/ eriesj.2018.110103.
- [44] Levin, B. (1998). The Educational Requirement for Democracy. Curriculum Inquiry, 28(1), 57–79.

https://doi.org/10.1108/ 09513540710716795

- [45] Levin, B. (2000). Putting Students at the Centre in Education Reform. Journal of Educational Change, 1(2), 155–172. https://doi.org/10.1023/A:1010024225888
- [46] Lupiyoadi, R., & Hamdani, A. (2016).Manajemen Pemasaran Jasa (Edisi Ketiga). In Jakarta: Salemba Empat.Salemba Empat.
- [47] Mastoi, A. G., XinHai, L., & Saengkrod, W. (2019). Higher Education Service Quality Based on Students' Satisfaction in Pakistan. European Scientific Journal, 15(11), 32–62. https://doi.org/10.19044/esj.2019.v15n11p 32
- [48] Mazumder, Q. H. (2015). Student Satisfaction in Private and Public Universities in Bangladesh. International Journal of Evaluation and Research in Education, 2(2).
- [49] Mustamin, M., Ahmad, A., Jasruddin, J., Syam, A., & Fitriani, F. (2019). The Effect of Academic Services Quality toward the Cadets Learning Motivation at Politeknik Ilmu Pelayaran Makassar. International Journal of Learning, Teaching and Educational Research, 18(10), 128–141. https://doi.org/10.26803/ijlter.18.10.8
- [50] Mwiya, B., Bwalya, J., Siachinji, B., Sikombe, S., Chanda, H., & Chawala, M. (2017). Higher Education Quality and Student Satisfaction Nexus: Evidence from Zambia. Creative Education, 8(7), 1044–1068.
 - https://doi.org/10.4236/ce.2017.87076
- [51] Nadiri, H., Kandampully, J., & Hussain, K. (2009). Students' Perceptions of Service Quality in Higher Education. Total Quality Management, 20(5), 523–535.
- [52] Naidu, P., & Derani, N. E. S. (2016). A Comparative Study on Quality of Education Received by Students of Private uUniversities Versus Public Universities. Procedia Economics and Finance, 35, 659–666. https://doi.org/10.1016/S2212-5671(16)00081-2.
- [53] Naik, C. N. K., Gantasala, S. B., & Prabhakar, G. V. (2010). Service Quality (SERVQUAL) and its Effect on Customer Satisfaction in Retailing. European Journal of Social Sciences, 16(2), 231–243. https://pdfs.semanticscholar.org/d124/e86

6687313a05a8ae38c2cd8d7f49e257830.pd f

- [54] Nasim, K., Sikander, A., & Tian, X. (2019). Twenty Years of Research on Total Quality Management in Higher Education: A systematic Literature Review. Higher Education Quarterly, 74(1), 1–23. https://doi.org/10.1111/hequ.12227
- [55] Nguyen, Q. L. H. T. T., Nguyen, D. Van, Chu, N. N. M., & Tran, V. H. (2020). Application of Total Quality Management in developing quality assessment model: The case of Vietnamese higher education. The Journal of Asian Finance, Economics, and Business, 7(11), 1049–1057. https://doi.org/10.13106/jafeb.2020
- [56] Nurdin, I., & Hartati, S. (2019). Metodologi Penelitian Sosial. Media Sahabat Cendekia.
- [57] Oldfield, B., & Baron, S. (2000). Student Perceptions of Service Quality in a UK University Business and Management Faculty. Quality Assurance in Education, 8(2), 85–95. https://doi.org/10.1108/096848800103256 00.
- [58] Onditi, E. O., & Wechuli, T. W. (2017). Service Quality and Student Satisfaction in Higher Education Institutions: A Review of Literature. International Journal of Scientific and Research Publications, 7(7), 328–335. http://www.ijsrp.org/ejournal.php
- [59] Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A Conceptual Model of Service Quality and its Implications for Future Research. Journal of Marketing, 49(4), 41–50.
- [60] Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1994). Reassessment of Expectations as a Comparison Standard in Measuring Service Quality: Implications for Further Research. Journal of Marketing, 58(1), 111–124. https://doi.org/10.2307/1252255
- [61] Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1998). SERVQUAL: A Multiple-Item Scale for Managing Consumer Perceptions of Service Quality. Journal of Marketing, 18(45), 437–449.
- [62] Pedro, E., Mendes, L., & Lourenço, L.(2018). Perceived Service Quality and Student's SAatisfaction ij Higher Education: the Influence of Teaching

Methods. International Journal for Quality Research, 12(1), 165–192. https://doi.org/10.18421/IJQR12.01-10

- [63] Rowley, J. (1996). Measuring Quality in Higher Education. Quality in Higher Education, 2(3), 237–255.
- [64] Saadati, S. (2012). The Measurement Education Services Quality Payam Noor University of Garmsarwith using of Servqual mModel. Journal of Basic Applied, 2(6), 6337–6343.
- [65] Sakthivel, P. B., Rajendran, G., & Raju, R. (2005). TQM Implementation and Students' Satisfaction of Academic Performance. The TQM Magazine, 17(6), 573–589.
- [66] Sallis, E. (2012). Total Quality Management in Education. In Ah. A. Riyad (Ed.), Joyakarta: IRCSod.
- [67] Seymour, D. T. (1992). On Q: Causing Quality in Higher Education. ERIC. http://eric.ed.gov/?id=ED350951
- [68] Shavyrina, I., Demenenko, I., & Kravchenko, E. (2018). Customer-Centric Organizational Culture of the University as a Factor of Efficient Social and Economic Development of the Region. SHS Web of Conferences, 50, 1011. https://doi.org/10.1051/shsconf/20185001 011
- [69] Silva, D. S., de Moraes, G. H. S. M., Makiya, I. K., & Cesar, F. I. G. (2017). Measurement of pPerceived Service Quality in Higher Education Institutions: a Review of HEdPERF Scale Use. Quality Assurance in Education, 25(4), 415–439.
- [70] Srikanthan, G., & Dalrymple, J. F. (2007).
 A conceptual Overview of a Holistic Model for Quality in Higher Education. The International Journal of Educational Management, 21(3), 173–193.
- [71] Surman, V., & Tóth, Z. E. (2019). Investigating Service Quality Issues in Higher Educational Context. Zagreb International Review of Economics and Business, 22(s2), 11–37. https://doi.org/10.2478/zireb-2019-0025
- [72] Svensson, G., & Wood, G. (2007). Are University Students Really Customers? When Illusion May Lead to Delusion for all! International Journal of Educational Management, 21, 17–28. https://doi.org/10.1108/ 09513540710716795

- [73] Twaissi, N. M., & Al-Kilani, M. H. (2015). The Impact of Perceived Service Quality on Students' Intentions in Higher Education in a Jordanian Governmental University. International Business Research, 8(5), 81–92. https://doi.org/10.5539/ibr.v8n5p81
- [74] Twum, F. O., & Peprah, W. K. (2020). The Impact of Service Quality on Students' Satisfaction. International Journal of Academic Research in Business and Social Sciences, 10(10), 169–181. https://doi.org/10.6007/IJARBSS/v10i10/7923
- [75] Van Truong, H., Pham, C. H., & Vo, N. H.
 (2016). Service Quality and Students Level of Satisfaction in Private Colleges in Vietnam. International Journal of Financial Research, 7(3), 121–128. https://doi.org/10.5430/ijfr.v7n3p121
- [76] Wang, C.-H., Chen, K.-Y., & Chen, S.-C. Quality Management, (2012). Total Orientation Market and Hotel Performance: The Moderating Effects of External Environmental Factors. International Journal of Hospitality 119-129. Management, 31(1), https://doi.org/10. 1016/j.ijhm.2011.03.013
- [77] Yorke, M. (1999). Leaving Early: Undergraduate non-Completion in the United Kingdom.
- [78] Zammuto, R. F., Keaveney, S. M., & O'Connor, E. J. (1996). Rethinking Student Services: Assessing and Improving Service Quality. Journal of Marketing for Higher Education, 7(1), 45– 70.

https://doi.org/10.1300/J050v07n01_05.

- [79] Zeithaml, V. A., Parasuraman, A., Berry, L. L., & Berry, L. L. (1990). Delivering Quality Service: Balancing Customer Perceptions and Expectations. Simon and Schuster.
- [80] Zineldin, M. (2007). The Quality of Higher Education and Student Satisfaction Self Assessment and Review Process a TRM Philosophy and 5Qs Model. Second International Conference Education, Economics, and Law: Traditions and Innovations. Växjö University, Sweden. Available at: Http://Tempus. Ulim. Md/Proj_ Dis. Php.