



Evaluation Of Service Quality For Undergraduate Programs At Andalas University

Nilda Tri Putri^{1*}, Alexie Herryandhi Broto Adi², Ryan Kamal Fikri³

^{1,2,3}Faculty of Engineering, Department of Industrial Engineering, Andalas University
Kampus Unand Limau Manis, Padang West Sumatra, 25163
Email: nildatriputri@gmail.com*, riankamalfikri@gmail.com

Abstract

Total Quality Management is a philosophy and key to bring success in the industry for this era. Total Quality Management plays an important role in the management system and culture to create or produce a good products and service. Andalas University is one object of the application of Total Quality Management in the education sector. Research carried out aims to describe the service quality for undergraduate programs at the Andalas University. Based on the measurement of the service quality, obtained the information related to the level of student satisfaction each Departments and priority improvements to service variable. The study used a questionnaire with two instrument ratings. The instruments rating are an assessment of the level of service and service priority. The calculation for service quality used CSI (Customer Satisfaction Index) method. The recommendations for improve service quality used IPA (Importance Performance Analysis) Method. Based on research conducted, service quality Undergraduate Program at Andalas University can be categorized as low. It was based on the value of CSI located on the 4th lowest category, which is one of courses in Very Poor category, 9 courses in Poor category, 3 courses in the Cause for Concern category, and 1 course on Borderline category. While the dimensions of which are in the service of a general improvement priorities is the Tangible and Reliability dimension.

Keywords: *Customer Satisfaction Index, Important Performance Analysis, Service Quality*

1. Introduction

University is the best medium in apply the concept of Total Quality Management. This is evidenced by the function of universities that have

similarities to the manufacturing industry. Total Quality Management plays an important role in the management system and culture to create or produce a good products and service. The products that

produce by university is students and knowledge, and service quality was produced by academic staff and employees. The needed of Total Quality Management in higher education also occurred in Indonesia. Not all University has applied the concept of Total Quality Management properly. The success of universities in Indonesia in the application of Total Quality Management can be assessed from the accreditation which is owned by the University. The relationship between the success of the application of Total Quality Management to this accreditation can be seen from the similarities between the assessment standards established by the National Accreditation Board of Higher Education in Indonesia with the output of Total Quality Management is a product (university graduates and knowledge) and service quality.

Andalas University is one of the oldest universities in Indonesia. In general, Andalas University, has applied the concept of Total Quality Management properly. This is indicated by the University of Andalas valuable accreditation A. However, it can not be assumed that the application of Total Quality Management has been applied for each program of study at the University of Andalas. One of the problems that happened was that there was still an accredited study

program C.

This proves that some courses have to do a self-evaluation in order to improve the internal quality of the courses themselves with the guidelines provided by National Accreditation Board of Higher Education in Indonesia. One of the self-evaluation needs to be done is an internal evaluation program of study in terms of service quality. Service Quality becomes the main focus in the internal evaluation of study programs as closely associated with the process and outcomes of courses. Therefore, it is necessary to conduct further research related to service quality for each program of study at the Andalas University.

2. Literature Review

In the study conducted by Todorut (2013), Total Quality Management means the whole set of elements that exist within an organization ranging from the process, training, systems, and method and entirely belonging to the quality of a product or service. The main objective of Total Quality Management is to create comfortable conditions for all existing resources capable of being used in a creative and efficient in its management. Additionally Hellsten, H and Klefsjo, B. (2000) in Todorut (2013) Total Quality Management can also be defined as a management strategy focused on

three units, namely core values, tools, and technique.

There are several points to consider in Total Quality Management, namely (Todorut, 2013): Change, Customer Orientation, Communication, Continuous Improvement, Corrective Measure, Cost of Poor Quality, and organisational structure of the network type in the Process or case management, Imagination, Creativity, Information Technology, Organizational Culture, Team, Orientation towards the Future. Application of Total Quality Management in Higher Education has the potential to (Hebert *et al.*, (1995); Vazzana *et al.*, (1997) in Cruickshank, 2010): Administration of University Function, Curricula dan Core Learning Processes, Teaching Methods, Research Activities, non-Academic functions [Hebert *et al.* 1995; Vazzana *et al.* 1997].

3. Methodology

3.1. Dimensions of Service Quality Measurement

The instrument used to measure the service quality for undergraduate program at Andalas University is a questionnaire. Questionnaires are designed using variables of service quality that is formed from multiple dimensions. Questionnaire survey used in this research can be seen at Appendix A. Dimensions of service quality were based on research

Owlia and Aspinwall in Sudha (2013) shown in Table 1.

Table 1: Quality Dimensions in Higher Education (Sudha, 2013)

Dimension	Characteristics
Tangible	Sufficient equipments / facilities
	Ease of access
	Visually appealing environment
	Support services (accommodation, sports, etc)
Competence	Sufficient staff (academic)
	Theoretical and practical knowledge, qualifications
	Teaching Experience, communication
Attitude	Understanding students needs
	Willingness to help
	Availability for guidance and device
	Giving personal attention
Content	Relevance of curriculum to the future jobs of the student
	Communication skill and team work
	Flexibility of knowledge, being cross-disciplinary
	Containing primary knowledge/skills
Delivery	Effective presentation
	Sequencing timeliness
	Consistency, fairness of examinations
	Feedback from students
Reliability	Trustworthiness
	Giving valid award
	Handling complaints, solving problems

3.2. Customer Satisfaction Index (CSI) Method

Customer Satisfaction Index (CSI) is useful to know the level of customer satisfaction with services provided by the service provider.

Steps to calculate the value of CSI are as follows (Syukri, 2014):

1. Determine the Value of Mean Importance Score (MIS) for each variable question
2. Identify Weight Factor (WF) for each variable question. This weight is obtained by dividing the MIS per variable with a total value of MIS
3. Determining Mean Satisfaction Score (MSS) for each variable question
4. Calculate Weight Score (WS_k) for each variable question. This value is obtained by multiplying the value of MSS with WF.
5. Calculate the value of Customer Satisfaction Index (CSI) using the formula:

$$CSI = \frac{\sum_{k=1}^p WS_k}{HS} \times 100\%$$

Table 2: Interpretation of CSI (Customer Satisfaction Index) (Syukri, 2014)

Index Range	Interpretation
$X > 87\%$	<i>Excellent</i>
$84\% < X \leq 87\%$	<i>Very Good</i>
$80\% < X \leq 84\%$	<i>Good</i>
$77\% < X \leq 80\%$	<i>Borderline</i>
$71\% < X \leq 77\%$	<i>Cause for Concern</i>
$64\% < X \leq 71\%$	<i>Poor</i>
$X \leq 64\%$	<i>Very Poor</i>

X = Customer Satisfaction Index

Highest Scale (HS) is the maximum scale used. Interpretation

of the value of the CSI (Customer Satisfaction Index) can be seen in Table 2:

3.5. Important Performance Analysis (IPA) Method

Importance Performance Analysis (IPA) method is used to see the improvement priority. In general, Importance Performance Analysis (IPA) dividing improvement priorities into four quadrants as shown in Figure 1:

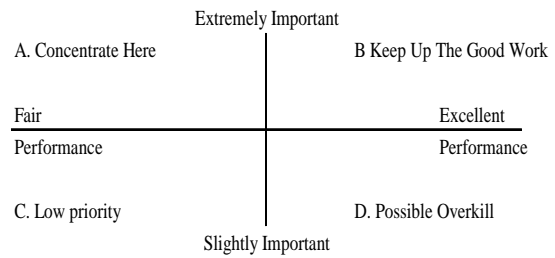


Figure 1: Importance Performance Analysis (IPA) Matrix (Martilla & James, 1977 in Kitcharoen, 2004)

4. Results and Discussion

The Calculation of CSI (Customer Satisfaction Index) is used to determine the level of customer satisfaction with the services provided. The value of the CSI (Customer Satisfaction Index) is shown as a percentage. Table 3 shows a recapitulation of the value of CSI (Customer Satisfaction Index) for the entire Department:

Table 3: Recapitulation of Customer Satisfaction Index for

Undergraduate Program at Andalas University

Department	Accreditation	CSI	Category
Indonesian Literature	B	79.48%	<i>Borderline</i>
Biology	A	73.55%	<i>Cause For Concern</i>
Physics	B	72.98%	
Japanese Literature	C	71.00%	
International Relations Science	B	70.66%	<i>Poor</i>
Mechanical Engineering	A	70.07%	
Computer Science	C	69.14%	
Nursing Program	B	68.51%	
Pharmacy	A	67.83%	
Environmental Engineering	B	67.67%	
Management	A	67.28%	
Industrial Engineering	A	66.18%	
Agribusiness	B	64.58%	
Dentist Program	C	61.14%	

According to the table, there was information that on the 14 department, interpretation of the results obtained 4 CSI (Customer Satisfaction Index). The interpretation is Borderline, Cause for Concern, Poor and Very Poor. This assessment is at its lowest 4 of 7 interpretations of interpretations on CSI (Customer Satisfaction Index). This interpretation shows that the level of customer satisfaction of 14 departments is still relatively low in general.

Interpretation with the highest ratings is the Literary Studies Program Indonesia with

Borderline category with a CSI score of 79.48%. This interpretation shows that the level of student satisfaction with service qualities provided by Program classified as normal. This interpretation occurs because the performance of academic staff of Indonesian Literature Department in providing services of various variables ratings considered quite good by the students. Pretty good service is coupled with expectations of students that did away with the service qualities provided by the Program.

The next interpretation is the interpretation of CSI by category Cause for Concern. Courses that are included in this category is the Department Biology, Physics, and Japanese Literature. This category indicates the service qualities provided by the Program are advised to conduct the evaluation. This happens because the gap between students' perceptions of academic staff's performance in terms of service to the students' expectations of service delivery. Gaps are not too significant, so that the performance evaluation program of study in terms of service do not need to be done immediately.

Interpretation with the highest Studies Program is the interpretation of the value of CSI with the Poor category. There are nine courses of study that fit into this category, namely the International

Relations Science, Mechanical Engineering, Computer Science, Nursing, Pharmacy, Environmental Engineering, Management, Industrial Engineering and Agribusiness. This category indicates that the level of student satisfaction on the performance of service Department is low. The main issues contained in this category are the presence of some of the Department with accreditation by 4 courses. This shows that the accreditation owned courses are not relevant to the current level of student satisfaction. The low value of the CSI is the case because of the large gaps between performance studies program in providing services with the expectation of service desired by the students.

The lowest category is very poor. Courses that fit into this category is a Dentist Education. This category indicates that the level of student satisfaction dental education as very low. Students assess that performance in the Department provides academic services is very far from the expectations of students to these services. Department should conduct an evaluation of the service quality as soon as possible. The level of student satisfaction is also relevant to the accreditation of educational courses dentists still worth C. Moreover, this gap occurs because this program is still relatively new.

Important Performance Analysis for each service dimension for Undergraduate Program at Andalas University can be seen generally at Figure 2.

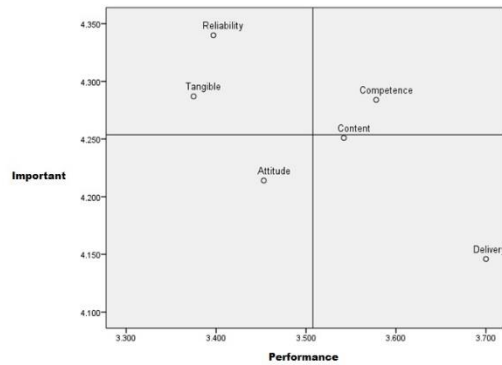


Figure 2: Important Performance Analysis for Undergraduate Program at Andalas University

Based on Figure 2, there was information that the main issues for each program of S-1 at Andalas University are a dimension Tangible and Reliability. This shows still need to be evaluated related facilities and infrastructure of academic and non-academic. In addition to the means-and the academic infrastructure, the evaluation also needs to be made to services that are of Student Affairs. While the dimensions of Competence, performance of academic services is considered very good and should be maintained. This is evidenced by the dimensions of Competence which are in quadrant II, whereas the low priority occurs on the dimensions of Attitude. This shows that the

students assess these dimensions needs to be improved, but not a top priority. High expectations occur on the dimensions of Content and Delivery. This indicates that the service performance is very high but not so important by students.

At Tangible dimension, improvement needs to be done completeness of laboratory equipment, completeness and recency collection of the library department, the ease of access to e-journal of research, and the cleanliness of the toilet majors. This needs to be considered by the Andalas University, because according to Internal Quality Policy Andalas University Year 2013-2016 Chapter III Article 14 Paragraph 3 describes the obligation of Andalas University in developing research infrastructure and facilities that are easily accessible all the academicians and the user community. Academicians in the Quality Policy Internal Andalas University Year 2013-2016 Chapter I Article 1 Paragraph 15 is Lecturers and Students Unand. This shows that the research facilities must be easily accessible to students and always developed by the Andalas University. In addition, based on Internal Quality Standards Andalas University Year 2013-2017 9 Part 28 Standards No. 82 stated that the laboratory should have equipment with the type and amount balanced with practical activities and student research.

At dimensions of Reliability, repairs need to be done are in softskill training, socialization race or national and international events, scholarships institutional and non-institutional, seminars and workshops related to the world of work, research information, the provision of facilities in extracurricular activities and social activities. Improvements on this variable refer to the Standards of Quality Standards Internal Affairs Component 6 14 Number 47 which explains the importance of university services to students, especially to components such as interest and talent, scholarship, health. While the Standard Components 65 14 No. 50, there's a need for the University to improve student achievement in both the academic and non-academic. Surely this is the basis of the University in developing any activities, facilities and infrastructure, as well as information relating to Student Affairs.

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APPENDIX A
Survey Instruction

Part 1 : Respondent Identity

Before answer the questionnaire, please fill in your data on this field:

- Name :
- Student Number :
- Gender : Male / Female
- Faculty :
- Study Program :
- BSS Status : Ever / Never

Part 2 :Survey Instruction

Please checklist (√) in the column provided on the right side of the question in accordance with your perception of quality. The assessment:

Assessment of Quality			Level of Service Importance	
Criteria	Code		Criteria	Code
Not Very Good	VNG		Not Very Important	NVI
Not Good	NG		Not Important	NI
Moderate	M		Moderate	M
Good	G		Important	I
Very Good	VG		Very Important	VI

Here is an example of the filling survey:

Questionnaire	Assessment of Quality						Level of Service Importance				
	VNG	NG	M	G	VG		NVI	NI	M	I	VI
Question 1				√			√				
Question 2			√				√				
Question 3			√						√		

Service type	Num	Questions	Assessment of Quality						Level of Service Importance							
			VNG	NG	M	G	VG	NVI	NI	M	I	VI				
Curriculum (CU)	1	Explanation of graduate study program field by department														
	2	Explanation of graduate study program competency by department														
	3	Explanation of the learning outcomes at the first meeting														
	4	Explanation RPKPS in detail for every subject														
	5	Availability of teaching materials for every subject														
6		Have you ever use/access i-learning? (Yes / Not)														
		If yes														
		If not														
Teaching Method (TM)	7	Explanation of learning method at the first meeting														
	8	Do you know about <i>Student Centered Learning</i> ? (Yes/Not)														
		If Yes														
		If Not														
	9	Giving task for every subject														
10	Interactive communication between lecturer and college student in lecturing activity															

Service type	Num	Questions	Assessment of Quality					Level of Service Importance						
			VNG	NG	M	G	VG	NVI	NI	M	I	VI		
	11	Conformity of lecturing activity with lecturing schedule												
	12	Attitude and manner of lecturer during the learning process												
	13	Teaching ability of lecturer												
	14	Discussion opportunities given by lecturer during the lecturing time												
	15	Interaction opportunities with lecturer outside of lecturing time												
	16	Explanation of the assessment system at the first meeting												
Scoring System (SS)	17	Accountability assessment by lecturer												
Service Type	Num	Questions	Assessment of Quality					Level of Service Importance						
			VNG	NG	M	G	VG	NVI	NI	M	I	VI		
Scoring System (SS)	18	Transparency of lecturers in providing assessment												
	19	Remedial provided by lecturer												
	20	Academic Supervisor services of student complaints about lectures												
Academic Supervisor (AS)	21	Academic supervisor giving solution to student problem												
	22	Evaluation of student study result by lecturer at the end of semester												

Service type	Num	Questions	Assessment of Quality					Level of Service Importance								
			VNG	NG	M	G	VG	NVI	NI	M	I	VI				
Administrative (AD)	23	Cooperative character of the department's administrative staff														
	24	Communicative character of the department's administrative staff														
	25	Attitude and manners of the department's administrative staff														
	26	Timeliness in completing student needs by the department's administrative staff														
	27	Availability of guideliness of the learning process (Final Project, Internship, & Practical Work)														
Facilities and Infrastructure (FIS)		Mentioned the Laboratory / Simulation Room / Multimedia Room in your department :														
	28	1														
		2														
		3														
		4														
	29		Cleanliness of Simulation Room / Multimedia Room in your department generally													
			Equipment completeness of Laboratory/ Simulation Room / Multimedia Room in your department													
			Equipment maintenance of Laboratory/ Simulation Room / Multimedia Room in your department													
	30															
	31		Cleanliness of seminar room in department													
32		Punctuality open and close time of library in department														

Service type	Num	Questions	Assessment of Quality					Level of Service Importance						
			VNG	NG	M	G	VG	NVI	NI	M	I	VI		
	33	Completeness of library collection												
	34	Innovation of library collection												
Service Type	Num	Questions	Assessment of Quality					Level of Service Importance						
	35	Accessibility of research e-journal												
	36	Accessibility of internet in department												
	37	Speed of internet access in department												
	38	Cleanliness of toilet in department												
	39	Capacity of parking lot												
	40	Optimizing the use of bulleting boards												
Facilities and Infrastructure (FIS)	41	Preservation of plant												
	42	Cleanliness of water in department area												
	43	Sound condition (low noise level) in area around department												
	44	Lighting building majors												
	45	Air circulation in department building												
	46	Security of department building												
	47	Comfortness of department building												

Service type	Num	Questions	Assessment of Quality					Level of Service Importance							
			VNG	NG	M	G	VG	NVI	NI	M	I	VI			
	48	Accessibility of activity room for student													
	49	Comfortness of activity room for student													
	50	Softskill training by study program													
	51	Socialization of contest or national & international event by study program													
	52	Socialization of institutional and non-institutional scholarship by study program													
	53	Seminar and workshop provided by study program													
Student Affairs (SA)	54	Study program delivery the research information													
	55	Support by department for every contest / national or international event													
	56	Facilities provision in student extracurricular activities by study program													
	57	Facilities provision in social activities by study program													