

Performance Evaluation of Academic Services in the University Using the Balanced Scorecard: A Study at an Indonesian Open University

Rhini Fatma Sari^a, Muchlis R. Luddin^b, Abdul Rahmat^c, ^aProgram Studi Pendidikan Ekonomi FKIP Universitas Terbuka, ^bPasca Sarjana Universitas Negeri Jakarta, ^cUniversitas Negeri Gorontalo Indonesia, Email: ^arins@ecampus.ut.ac.id, ^bmrantni_luddin@yahoo.com, ^cabdulrahmat@ung.ac.id

The aim of this research is to evaluate the performance of academic services at Open University (UT) by using the modified balanced scorecard. Through evaluation, the research found out the level of achievement of UT's strategic plans to achieve the vision and mission of UT. The perspectives of the BSC evaluated at UT's academic services are as follows: (1) customer perspective, (2) financial perspective, (3) internal business perspective and (4) innovation and learning perspective. The evaluation was carried out by interviewing, questionnaires to 358 respondents and document analysis of the Annual Reports in 2013 and 2014. The quantitative data processing was conducted using Customer Satisfaction Index (CSI) and Importance Performance Analysis (IPA). The evaluation result showed that the performance of Academic Services of UT is in a very good condition (healthy condition), which has an "A" category with a 74,11 score of the whole performance. The evaluation result showed that the performance of the academic services of UT from a customer perspective is at a level of 67.54% of the index, while 75.44% of the index was on financial perspective, 78.32% of the index was on internal business process perspective and 76.61% of the index was on learning and growth perspective.

Keywords: *Performance evaluation, Balance scorecard, Perspective of BSC, CSI, IPA, Performance index.*

Introduction

The Open University (UT) is an educational institution that combines the concepts of open learning and distance education. The Open University today has 533,327 students (<http://www.ut.ac.id>). It is divided into five faculties: Teaching and Education Science (FKIP), Mathematics and Natural Science (FMIPA), Social and Political Science (FISIP), Economics (FEKON), and postgraduate studies. These faculties are spread over 39 Long Distance Program Units (UPBJJ) throughout Indonesia and overseas. The implementation of education programs in the Open University (UT) requires strategic managerial support which will direct the vision, mission, and goals. The development plan for the Open University is described in the Strategic Plan 2010-2021 and Operational Plan 2010 – 2013. Academic services are conducted in the Central Open University and in 39 Long Distance Program Units, which are spread over 34 provinces and one overseas service unit. These services are standardised with the Open University Quality Assurance System (SIMINTAS UT) that is accredited both nationally and internationally.

The balanced scorecard was originally designed for business organisations (Kaplan, Robert S, Norton, 1996a, 1996b). Further developments in the balanced scorecard are also used to measure public sector performance (Wilson, Hagarty, & Gauthier, 2004), including education (Maria, Wijaya, & Fibriani, 2013; Nayeri, M.D, Mashhadi, M.M, 2008; Schobel & Scholey, 2012; Strang, 2010; Taylor & Baines, 2012; Umayal Karpagam & Suganthi, 2012; Chen, Yang, & Shiao, 2006). Research in Taiwan also explains that the balanced scorecard can be used to evaluate management policies in universities (Chen et al., 2006). Research on the application of the balanced scorecard in education shows that the balanced scorecard is a performance assessment that is used to align communication and strategy in higher education (Taylor & Baines, 2012). The balanced scorecard can also be used for performance appraisal in every perspective (Schobel & Scholey, 2012; Umayal Karpagam & Suganthi, 2012).

Several studies on the application of the balanced scorecard in performance appraisal at the university were conducted (Kyong Jee Kim and Curtis J Bonk, 2006; Ryan Watkins and Roger Kaufman, 2003). But there has not been much research at distance universities, especially in Indonesia. This research is very interesting because of the characteristics of distance universities, as these have a more dynamic performance assessment model.

This research is conducted to discover how far the Open University Strategic Plan (Renstra UT) has achieved performances that lead to the achievement of the open university vision and mission. The balanced scorecard (BSC), which was developed by Kaplan, Robert S and David P. Norton (Kaplan, Robert S, Norton, 1996, 2001; R. S. dan D. P. N. Kaplan, 1996; R. S. Kaplan, 2012; Kaye Shelton, 2006) was chosen in order to evaluate all the components of the Open University academic services from the four perspectives of the BSC: customer perspective, internal business perspective, innovation and learning perspective, and financial perspective. Measuring performance with a balanced scorecard and key performance

indicators with an importance performance analysis (IPA) and customer satisfaction index (CSI) analysis tool can show the performance value of Open University academic services to students and stakeholders from every BSC perspective.

Performance Evaluation

Evaluation is the process of seeking useful information to evaluate the presence of a program; the production, the procedure, the goal, or to evaluate an alternative approach of the program and to achieve the specified program goals. Evaluation is a scoring activity to a phenomenon that contains specific value judgment. Ralph Tyler in Bellack, Arno A. And Kliebard (1977), defined evaluation as a “process by which one matches initial expectations in the form of behavioural objectives with outcomes.” Furthermore, it is said that, “the process of evaluation is essentially the process of determining to what extent the educational objectives are actually being realised by the program of curriculum and instruction.” Another definition of evaluation is, “evaluation is the systematic assessment of an objective merit, worth, probity, feasibility, safety, significance and/ or equity” (Stufflebeam, 2007).

Performance evaluation is a process that is used by an organisation to evaluate job performance. Strategically, performance evaluation requires a mechanism to ensure that the organization is able to satisfactorily implement its strategies. The standard to evaluate performance, which was stated by Daniel Stufflebeam (2007), and adopted by the Joint Committee (1988), is namely: (a) utility, (b) accuracy, (c) feasibility, and (d) propriety, in order to give positive impact to the development of the program.

As an educational institution, a university possesses core businesses in the fields of teaching and research. Both core businesses have become key variables that contribute to the success of the organisation. According to Weigert (1998), an academic service is, “a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities.” The outcomes of academic services that are provided by a college will influence academic performance

(http://wiki.answers.com/Q/How_anxiety_effects_on_academic_performance). In order to evaluate the success of a university in providing academic services to its students, a series of performance evaluation for academic services is needed.

Balanced Scorecard

The balanced scorecard is a performance evaluation means which aims to enable an organisation to evaluate its own strategic goals achievement. The concept of the balanced scorecard was developed initially as a performance measurement system in 1992 by Dr.

Robert Kaplan and Dr. David Norton in the Harvard Business School. Kaplan and Norton (1996), state that balanced scorecard is,

“a set a set of measures that gives top managers a fast but comprehensive view of the business... [it] includes financial measures that tell the results of actions already taken... [it] complements the financial measures with the operational measures on customers satisfaction, internal process, and the organisation’s innovation and improvement activities - operational measures that are the drivers of the future financial performance.”

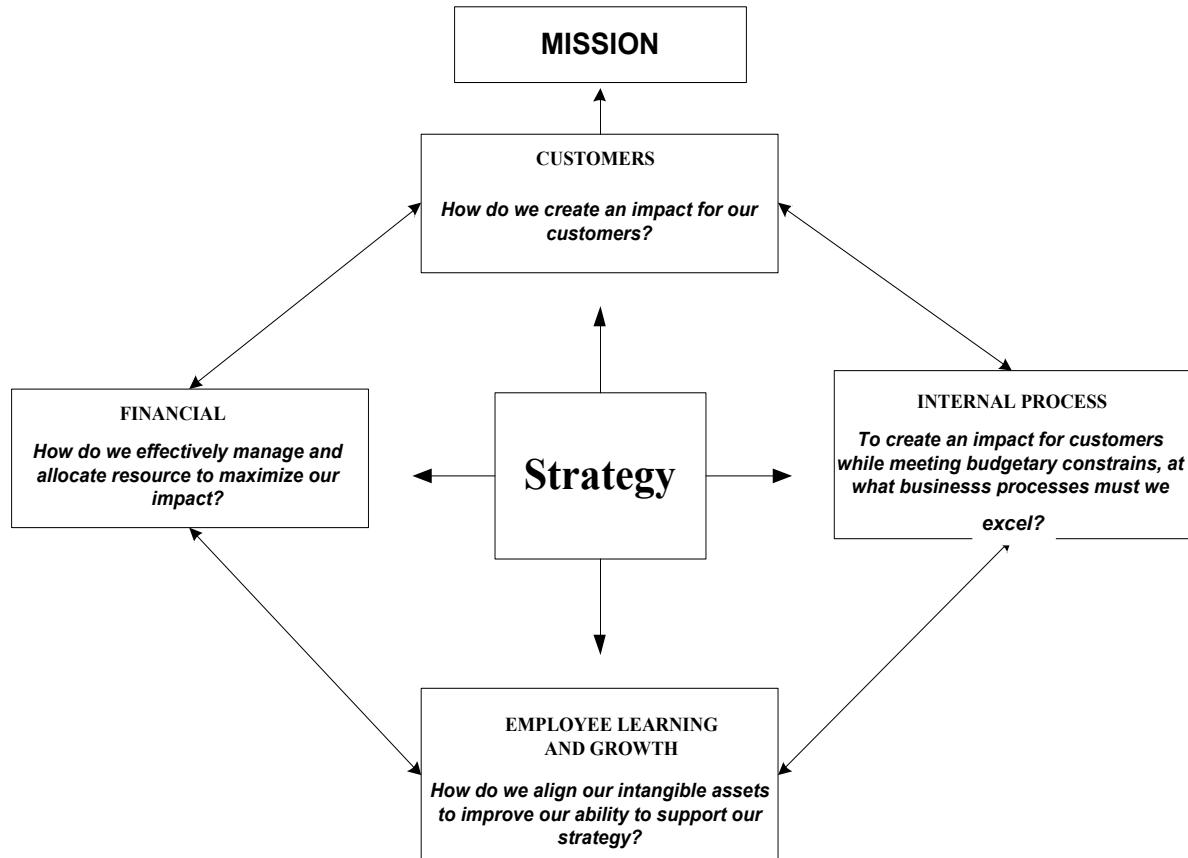
According to Kaplan and Norton (1996), an organisation can measure its long-term performance by using given indicators and benchmarks. The balanced scorecard provides answers to four fundamental questions:

1. How do customers see us? (Customer and stakeholders Perspective)
2. How do we look to shareholders? (Financial Perspective)
3. Can we continue to improve and create value? (Growth and Learning Perspective)
4. What must we excel at? (Internal Business Process Perspective)

The balanced scorecard concept was originally designed for business organisations, but in subsequent developments began to be applied to public sector organisations and non-profit organisations. The prominent difference between public sector organisations and public sector organisations is the goal; public sector organisations are not very profit-oriented, unlike the business sector. However, a method of measuring the effectiveness and efficiency in providing services to the community is needed. Some changes were made in the concept of the balanced scorecard in the public sector, in the form of: 1) a framework change in which the driver in a balanced scorecard for public organisations is a mission to serve the community; 2) a change of position between a financial perspective and a customer perspective; 3) a change of customer perspective to the perspective of customers and stakeholders; 4) a change of the perspective of learning and growth into the perspective of employees and organisational capacity.

In contrast to the implementation of the balanced scorecard in business organisations, the implementation of the balanced scorecard in public organisations, including educational institutions, requires some framework changes. In public organisations that become drivers is a mission to serve the community, and therefore focus on customer perspective (Mahmudi, 2010). Balanced scorecards in the public and non-profit sectors are illustrated in Figure 1. The main concern of the mission of the organisation is towards the customer, not the finances. The placement of customer perspectives on the top shows that whatever the organisation does from the financial side, organisational development and internal processes, is intended to support customer perspectives.

Figure 1. Balanced Scorecard in the Public and Non-Profit Organisation Sector (Niven, 2008).



Currently, performance appraisal in educational institutions is necessary because the quality of higher education is one of the important criteria. The balanced scorecard can be used as a method of measuring and evaluating the performance of educational institutions, especially universities. Cullen, Joyce, Hassall, & Broadbent, (2003), explain that balanced scorecards can be used by educational institutions for organisational reinforcement management. Karathanos, D. and Karathanos P (2005), Chang & Chow (1999) and Cronje C.J and Vermaak F.N.S, (2004), empirically exemplify the application of the BSC in the educational environment. Taylor & Baines (2012), also state that continuous improvement is required for universities to maximise the strength of the balanced scorecard approach. This approach offers a performance assessment that can help in aligning communication and strategy in a university.

As with face-to-face universities, the development of online learning models in the technological era requires institutional development strategies and performance measures. Alstete & Beutell (2004), disclose the need for strategies and policies to make changes in the design of online learning, especially in the design of learning. Mary & Santovec (2004),

explain one of the challenges in the provision of distance education is how to assess the success of student academic programs and communications with administrators, and the impact of this program on the success of students in light of socio-economic background, geographical conditions and physical constraints. The balanced scorecard application can help provide a clear picture of how the institution should equally measure every perspective that influences.

Kaye Shelton (2006) and Taylor & Baines (2012) suggest that the development of scorecards used to measure the quality of online learning elements in universities can support strategic planning and develop programs for improvement. Schobel & Scholey (2012), also describe the strategy map and the balanced scorecard in distance education, with a focus on financial perspective impacting all other perspectives. Changes in the financial perspective on the strategy map will have an impact on the customer perspective, internal business process perspective, and learning and growth perspective.

Key Performance Indicators

Performance evaluation from each aspect is developed through performance measurement. Performance measurement refers to the indicator given by the management to measure, report, and improve performance. One performance measurement tool is Key Performance Indicators (KPI), which is a non-financial measurement, and is implemented as often as possible to show the next required action(s) (Parmenter, 2010). Before becoming a Key Performance Indicator (KPI), a performance measurement should be tested to ensure that KPI could provide the desired behaviour.

Research by Chen, Yang, & Shiao (2006) in Taiwan also explains that in order to evaluate the progress of strategic plan performance and strategic objectives, specific and simple performance measure indicators / PMIs should be established, enabling all staff to understand the balanced scorecard orientation in their day-to-day tasks.

Research Method

Method

The research method was arranged by adopting Creswell's research design in Brinkerhoff (1983) and adjusting it with performance evaluation, and with BSC Development Design (Supriyatno, 2014). The performance evaluation of the Open University Academic Services was carried out through a series of research evaluation activities that involved researchers, reviewers, internal respondents, and external respondents. This research was conducted by merging data from processing the questionnaire result of the internal and external

respondents, data from interviews with the students, and data from stakeholders and the head of UT regional office. The merged data then was compared with the quantitative data of the Open University Operational Plan from the years 2013 and 2014.

The evaluation tool is outlined in the form of questionnaires and interview guidelines to explore respondents' opinions regarding UT's performance in accordance with the strategic plan and operational plan that has been prepared. UT's performance evaluation with the balanced scorecard is carried out through the following steps: (1) review of the UT strategic plan for 20005-2021 and UT operational plans for 2013 and 2014 (2) develop and review evaluation tools by determining Key Performance Indicators (KPI) on UT academic services; (3) preparation of Open University academic service performance evaluation questionnaire based on compiled KPI; (4) collecting data in five UT Regional Offices with validated questionnaire; (5) evaluation of academic service performance at the Open University is done through distributing questionnaires to the respondents.

Determining the value of importance and service performance from each perspective can produce performance values for each perspective in the balanced scorecard which is calculated by the Customer Satisfaction Index (Lewis, 2004) and Importance-Performance Analysis (Martilla, 1977; Grigoroudis, Orfanoudaki, & Zopounidis, 2012), to determine the response of consumers to services based on the level of importance and performance of the service products. While the gap analysis (gap) is used to see the gap between the performance of a service product with consumer expectations of the service product.

Respondents

Respondents in this study were UT students, stakeholders, and university leaders (vice rectors, deans, vice deans, heads of departments, heads of institutions and study program leaders) and heads of the UT Regional Office, representing 37 UT Regional Offices throughout Indonesia on area criteria and number of students.

Student sampling used the stratification method of sampling. The sample of student respondents was taken from eight UT Regional Offices representing the West Indonesia Region (UT Regional Office Padang, UT Regional Office Medan and UT Regional Office Jakarta), Central Region of Indonesia (UT Regional Office of Samarinda, UT Regional Office Makasar and UT Regional Office Denpasar), Eastern Indonesia (UT Regional Office Jayapura, and UT Regional Office Kupang). Samples were also taken from respondent stakeholders at four UT Regional Offices (Padang, Samarinda, Denpasar and Jayapura).

The total number of respondents in this study were 358 respondents, consisting of 235 UT students, 39 respondent stakeholders and university leaders amounting to 79 respondents. The

study also used literature studies in addition to key informants. The study of literature is used as a reference for discussion in research.

Data Collection and Analysis

An evaluation instrument was compiled in questionnaire format and added to interview guidelines to delve into the respondents' opinions of the Open University performance, in accordance with the pre-set Strategic Plan and Operational Plan. The subject of this research was the Open University, specifically its central office and 39 regional offices throughout Indonesia. The performance measurement used in this research was Key Performance Indicators developed by R. Eko Indrajit dan R Djokopranoto (2006); Powar, K.B., Panda, Santosh., Bhalla (2000), and was adjusted to the Open University Strategic Plan.

The research data was accumulated using a qualitative approach and was supported by quantitative data. Qualitative data analysis was carried out using the interactive model of Miles, Mattew B dan Huberman (2009), resulting in conclusions in the form of causal relation or interactive, hypothesis or theory (Sugiyono, 2013). Data triangulation in the form of data validity and reliability was created referring to Sugiyono (2013). Quantitative analysis incorporated Importance Performance Analysis (IPA) tools to find the discrepancy between performance with expectancy from service products (Martilla, 1977; Grigoroudis, Orfanoudaki, & Zopounidis, 2012) and Customer Satisfaction Index (CSI) (Lewis, 2004) to analyse the extent of whole customer satisfaction. The standard criteria used to determine the Open University Academic Performance i refers to the standard criteria of Rangkuti (2011).

Table 1: Criteria Standards Performance Measurement with Balanced Scorecard

Condition	Category	Total Score (TS)
Very Healthy	AAA	≥ 95
	AA	$80 < TS < 95$
	A	$65 < TS < 65$
Less Healthy	BBB	$50 < TS < 65$
	BB	$40 < TS < 50$
	B	$30 < TS < 40$
Unhealthy	CCC	$20 < TS < 30$
	CC	$10 < TS < 20$
	C	$TS < 10$

Findings

The performance evaluation of the Open University academic services using the balanced scorecard includes evaluation on (a) customer perspective, (b) financial perspective, (c)

internal business process perspective, and (d) learning and growth perspective. The questionnaire results for external respondents (students and stakeholders) and internal respondents (decision makers and executives in the Central Open University as well as the head of the regional office of the Open University in four regional office locations) can be seen in Table 2 below:

Table 2: UT Academic Services Performance Analysis using Balanced Scorecard

Internal Perspective	Customer Satisfaction Index	Information
Customer Perspective	67.54%	Satisfied
Financial Perspective	75.44%	Very Satisfied
Internal Business Process Perspective	78.32%	Very Satisfied
Learning and Growth Perspective	76.61%	Very Satisfied

The services attribute with the least satisfactory level is customer perspective, with 67.54% customer satisfaction level, (using four levels of criteria, 0-25% very dissatisfied; 26% -50% dissatisfied; 51% -75% satisfied; 76% -100% very satisfied). Comparative analysis between evaluation score (given by the respondents) with performance achievement value in the Rector's Report in 2013 and 2014 showed that 28.5% were able to achieve performance level over 100%; 28.5% services achieved performance level in between 90% - 99%, and 42.85% academic services achieved performance level in between 60% - 90%.

Table 3: Performance Level Achievement from Customer Perspective

Component Criteria	Measurement	Significance Level	Performance	Achieved Performance in UT Annual Report	
				2013	2014
Usefulness to the Customer					
P1	Study time completion	ST	3.03	2.97	
P2	Improving the quality of graduates	P.2 IQ 1	3.19	2.95	63%
		P.2.IQ 2			94%
P3	Number of registered students in every study program	P3 NR 1	3.00	2.75	91.14%
		P3 NR 2			168%
P4	Total number of students in every study program	P4 TN 1	3.00	2.72	
		P4 TN 2			
P5	Geographical area balance	P5 GA1	2.75	2.81	
		P5 GA2			
		P5 GA3			
Quality of the services offered					
P6	Study program accreditation	P6 Pac	3.46	3.22	71%
P7	University rankings	P7 Ur	3.30	3.11	100%
P8	ISO 9000 Certification	P8 ISO	3.16	3.22	75%
Cost of the services offered					
P9	The price of tuition for one credit and the average cost for one student in one year	P9 Price	2.97	2.97	
		P9 Price 2			
		P9 Price 3			

The Academic Services Performance that has been rated as very satisfying is the performance from the Internal Business Process Perspective, with the satisfaction level of 78.32%. Comparative analysis of the Open University performance that was reported in the Rector's Work Report in the years 2013 and 2014 showed that the Internal Business Process Perspective had largely achieved the target.

Table 4: Performance Achievement from Internal Business Process Perspective

Component Criteria	Measureme nt	Significa ncy Level	Perfor mance	Achieved Performance in UT Annual Report	
				2013	2014
Faculty Developments					
PPP1	Quality improvement of the lecturer's scientific research	PPP1 Q1	3.19	3.00	75%
		PPP1 Q2			76% 112%
		PPP1 Q3			63%
		PPP1 Q4			20% 910%
		PPP1 Q5			146% 232%
PPP2	Scientific publication ratio of the lecturer in each year	PPP2 SP1	3.11	2.84	63%
		PPP2 SP 2			20% 910%
		PPP2 SP 3			146% 232%
PPP3	Quality improvement of the community services	PPP3 QIS 1	3.03	2.92	
		PPP3 QIS 2			200% 218,75%
		PPP3 QIS 3			150% 300%
		PPP3 QIS 4			260%
The Quality of the Supporting Facility					
PPP4	Improve and solidify partnership networking with third parties Continuous partnerships that support academic operational and administrative needs	PPP4 IP 1	3.03	2.89	78%
		PPP4 IP 2			0%
		PPP4 IP 3			0%
		PPP4 IP 4			30%
		PPP4 IP 5			130%
		PPP4 IP 6			270%
		PPP4 IP 7			80%
		PPP4 IP 8			100%
		PPP4 IP 9			90%
PPP5	Improving reputation of the institution by creating attractive website, representative regional office building, and acknowledgement of the academic services from the education community	PPP5 IR 1	3.19	3.16	100%
		PPP5 IR 2			75%
		PPP5 IR 3			<10%
		PPP5 IR 4			100%
		PPP5 IR 5			60%
		PPP5 IR 6			70%
		PPP5 IR 7			100%
		PPP5 IR 8			100%
3.3 Human Resources Quality					

Component Criteria		Measureme nt	Significa ncy Level		Achieved Performance in UT Annual Report	
			2013	2014		
PPP6	Always pushing the human resources of UT to study independently at the individual level, group level, or organisation level until everyone becomes very proficient in their own work	PPP6 HR 1	3.16	2.89	61.67%	96.6%
		PPP6 HR 2 80%				100%
		PPP6 HR 3				100%
PPP7	Development of the organisational culture that is oriented in performance quality	PPP7 OC 1	3.32	3.11		100%
PPP8	Development of the innovative cultural principle of the organisation	PPP8 IC 1	3.19	2.97		100%
PPP9	Development of integrated quality assurance system that complies with the standard	PPP9 DI 1	3.26	3.17		
		PPP9 DI 2			96%	
		PPP9 DI 3				75%
		PPP9 DI 4				100%
		PPP9 DI 5				NA
PPP10	Quality Assurance System through Human Resources audit	PPP10 QA	3.11	3.08		50%
3.4 The Use, Development, and Application of Technology						
PPP1 1	Ratio Computer/Staff	PPP11 RC	3.19	3.24		
PPP1 2	Ratio Computer/Lecturer	PPP12 RCL	3.17	3.22		
PPP1 3	Sufficiency of the facility's equipment to support the long-distance learning process in the central UT and in regional offices	PPP13 FEq	3.22	3.31		100%
The Quality of the Supporting Facility						
PPP1 3	Sufficiency of the facility's equipment to support the long-distance learning process in the central UT and in regional offices	PPP13	3.22	3.31		100%

Table 4 shows that 33.3% of the Open University academic services had achieved performance levels beyond 100% from the Internal Business Process Perspective. 28.6% of academic services had achieved performance levels between 80% - 100%. Academic services that had performance levels between 50% - 79% amounted to 26.1% services. The Rector's Report showed that 11.9% of academic services had a performance level below 50%.

Services performance from the Learning and Growth Perspective shows the index score of 76.61% (Very Satisfying). The academic services from this perspective can still be increased to reach 100%, because there are 23.39% of respondents that are unsatisfied with the performance of the Open University academic services.

Table 5: Performance Achievement from Learning and Growth Perspective

Component Criteria	Measurem ent	Significa ncy Level	Performa nce	Achieved Performance in UT Annual Report				
				2013	2014			
1. The Open University Performance from Customer Perspective								
1.1 Usefulness to the customer								
P1	Study time completion	P1 ST	3.03	2.97				
P2	Graduates quality improvement	P2 GQ 1	3.19	2.95	63%			
		P2 GQ 2			94%			
P3	Number of registered students in every study program	P3 NR 1	3.00	2.75	91,14%			
		P3 NR 2			168%			
P4	Total number of students in every study program	P4 TNS 1	3.00	2.72				
		P4 TNS 2						
P5	Geographical area balance	P5 GA 1	2.75	2.81				
		P5 GA 2						
		P5 GA 3						
1.2 Quality of the services offered								
P6	P6 Study program accreditation	P6 Sac	3.46	3.22				
P7	P7 University rankings	P7 UR	3.30	3.11				
P8	P8 ISO 9000 Certification	P8 ISO	3.16	3.22				
1.3 Cost of the services offered								
P9	The price of tuition for one credit and the average cost for one student in one year	P9 Price 1	2.97	2.97				
		P9 Price 2						
		P9 Price 3						

The Financial Perspective has a CSI index of 75.44% (Very Satisfying). In this score range, 24.56% respondents are not satisfied with the Financial Perspective performance. In order to improve its performance, the Open University must focus on improving the performance of services attributes, which has the average score performance below the Weighted Score (WS). The result from the Importance Performance Analysis shows that the performance of the PK10 (Efficiency of teaching cost / student) is very important to the students and its performance still needs to be improved.

Table 6: Performance Achievement from Financial Perspective

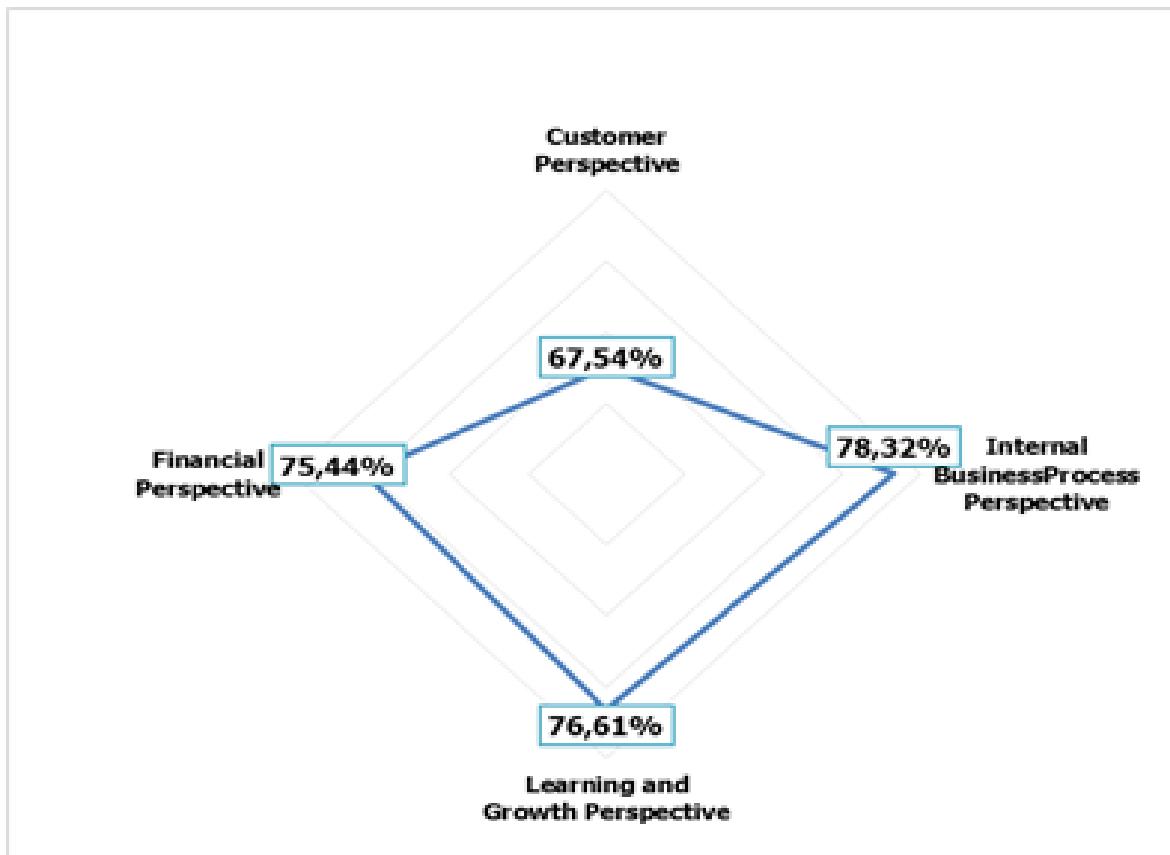
Component Criteria	Measurement	Significance Level	Performance	Achieved Performance in UT Annual Report	
				2013	2014
Funding Source					
PK1	Growth/increase of the amount of funds compared to the previous year	PK 1	3.267	3.200	90%
PK2	Financing from donors for the development of new learning services	PK2 Fin	2.933	2.733	
PK3	Total increase in funding	PK3 TInc	2.933	3.067	
	Incomes from academic activities	PK3 Inc A			
PK4	The amount of funding received from research funds	PK4 AFRF	2.750	2.400	
PK5	The amount of funding received from other activities related to either academic or non-academic services	PK5 AFAA	2.933	2.533	100%
PK6	The increase in income from the students in the form of tuition fees and other kinds of funding	PK6 IIS	3.267	3.200	
4.2 Financial management					

Component Criteria		Measurement	Significance Level	Performance	Achieved Performance in UT Annual Report	
					2013	2014
PK7	Available budgets can fund all financial requirements of the learning services	PK 7 AB	3.400	3.467		
		PK 7 AB 2				
PK8	The amount of costs of one activity unit	PK 8 Cost	3.267	3.200		
PK9	The increasing amount of funding from the students	PK9 Inc	2.933	3.067		
PK10	Efficiency of teaching cost/student	PK10 Eff.	3.133	3.000		
		PK 10 Eff 1				
PK11	Percentage of budget given directly to the learning activities	PK11 Bud	3.533	3.133		

Discussions and Conclusion

The position of each balanced scorecard perspective performance of the Open University academic services can be depicted in the following Radar Diagram, attributed to Grigoroudis, Orfanoudaki, & Zopounidis (2012).

Figure 2. Performance Radar Diagram of the Open University Academic Services with Balanced Scorecard Perspective



The Radar Diagram of UT service performance demonstrates the need for greater attention from UT leaders in customer perspectives. Grigoroudis, Orfanoudaki, & Zopounidis (2012), explained in their research findings that the low customer perspective may be due to the organisation not making the customer the most important strategic goal. Deeper analysis is needed to examine whether learning and growth is really intended for the benefit of the customer.

The direction of learning and growth perspective to the customer indicates that overall growth and learning at UT is aimed at increasing customer satisfaction. This analysis is in line with a Nayeri, M.D, Mashhadi, M.M (2008) study, which shows that learning and growth and customer perspective are more important than internal process and financial perspective. The position of customer perspective in the top position indicates that learning and growth, internal process and financial perspective are intended to support service efforts provided to customers (Niven, 2008). The results of this study also showed that one of the factors that require attention by the organisation in providing services to customers, especially in the field of education, is communication and promotion. Communication and Promotion will be able to equate the perception between educational institutions and customers (students and stakeholders) regarding the process of education and the output that will be obtained.



Analysis using the Importance Performance Analysis (IPA) and Customer Satisfaction Index indicates that the performance of the Open University academic services is in a very healthy condition, within category A, with the overall performance score of 74.11 (Rangkuti, 2011). Based on the results of this research, the conclusion can be stated as follows: (1) The Customer Perspective Performance Index of the Open University academic services is 67.54%, which shows that the consumers are satisfied with the Open University academic services; (2) The Financial Perspective of the Open University academic services is 75.44%. This means that the respondents are very satisfied with the financial performance of the academic services; (3) The Internal Business Process Perspective Index of the Open University academic services is at 78.32% or very satisfying. This means that the Open University has been able to manage the human resources within the organisation to provide satisfying academic services; (4) The Learning and Growth Perspective Index of the Open University academic services is at 76.61% (very satisfying); and (5) The overall performance of the Open University academic services signifies a very healthy condition, which is in category A and with the overall performance score of 74.11%.

The implication of this research may help the Open University evaluate to what extent the translation of the Open University Vision, Mission, and Goals that have been poured into the Strategic and Operational Plan has been achieved. Furthermore, this research could be used to improve the performance of the academic services that have not yet been able to reach their intended target, as stated within the Open University Strategic Plan, Vision and Mission.

REFERENCES

- Alstete, J. W., & Beutell, N. J. (2004). Performance indicators in online distance learning courses: A study of management education. *Quality Assurance in Education*, 12(1), 6–14. <https://doi.org/10.1108/09684880410517397>
- Bellack, Arno A. And Kliebard, H. M. (1977). *Curriculum and Evaluation*. California: Dutrhan.
- Brinkerhoff, R. O. (1983). *Program Evaluation, A Practitioners Guide For Trainers and Educatoers*. Boston: Kruwer-Nijhoff.
- Chang, O. H., & Chow, C. W. (1999). The Balanced Scorecard: A Potential Tool for Supporting Change and Continuous Improvement in Accounting Education. *Issues in Accounting Education*, 14(3), 395–412. <https://doi.org/10.2308/iace.1999.14.3.395>
- Chen, S. H., Yang, C. C., & Shiao, J. Y. (2006). The application of balanced scorecard in the performance evaluation of higher education. *TQM Magazine*, 18(2), 190–205. <https://doi.org/10.1108/09544780610647892>
- Cronje C.J and Vermaak F.N.S. (2004). The Balanced Scorecard as a Potential Instrument for Supporting Planning and Improvement in Accounting Education: Comparative Survey Findings. *SAJEMS NS* 7,) No 3.
- Cullen, J., Joyce, J., Hassall, T., & Broadbent, M. (2003). Quality in higher education: From monitoring to management. *Quality Assurance in Education*, 11(1), 5–14. <https://doi.org/10.1108/09684880310462038>
- Grigoroudis, E., Orfanoudaki, E., & Zopounidis, C. (2012). Strategic performance measurement in a healthcare organisation: A multiple criteria approach based on balanced scorecard. *Omega*, 40(1), 104–119. <https://doi.org/10.1016/j.omega.2011.04.001>
- Kaplan, Robert S, Norton, D. P. (1996a). *Putting the Balanced Scorecard to Work*. Harvard Business School Press.
- Kaplan, Robert S, Norton, D. P. (1996b). *The Balanced Scorecard : Translating Strategy Into Action*. Boston: Harvard Business School Press.
- Kaplan, Robert S, Norton, D. P. (2001). *The Strategy Focused Organization, How Balanced Scorecard Company Thrive in The New Business Environment*. Boston: Harvard Business Review.



Kaplan, R. S. (2012). The balanced scorecard: Comments on balanced scorecard commentaries. *Journal of Accounting and Organizational Change*, 8(4), 539–545. <https://doi.org/10.1108/18325911211273527>

Kaplan, R. S. dan D. P. N. (1996). *The Balanced Scorecard : Translating Strategy Into Action*. Harvard Business School Press.

Karathanos, D., Karathanos, P., Kaplan, R. S., & Norton, D. P. (2016). Applying the Balanced Scorecard to Education Applying the Balanced Scorecard. *Journal of Education for Business*, 2323(May). <https://doi.org/10.3200/JOEB.80.4.222-230>

Kaye Shelton. (2006). *A Quality Scorecard for the Administration of Online Education Programs: A Delphi Study*. Dissertation Available from ProQuest, UMI Dissertations Publishing, 2006, 3423965.

Kyong Jee Kim and Curtis J Bonk. (2006). The Future of Online Teaching and Learning in Higher Education: The Survey Says . . .". *Educause Quarterly*, Vo.4.

Lewis, R. (2004). Importance-performance analysis. *Australasian Journal of Engineering Education*, 2, 1–8.

Mahmudi. (2010). *Manajemen Kinerja Sektor Publik*. Jakarta: STIE YKPN.

Maria, E., Wijaya, L., & Fibriani, C. (2013). Evaluation of Implementation on Information and Communication Technology in Higher Education Institutions in Indonesia Using the It Balanced Scorecard (. *Researchers World*, 3(July 2013), 49–57. Retrieved from http://www.researchersworld.com/vol4/issue3/vol4_issue3_2/Paper_05.pdf

Martilla, J. A. and J. J. C. (1977). Importance-Performance Analysis. *Journal of Marketing*, Januari 19.

Mary, B., & Santovec, L. (2004). assessment Assessing Online Programs with the Balanced Scorecard. *Distance Education Report June 1, 2004*.

Miles, Mattew B dan Huberman, A. M. (2009). *Manajemen Data dan Metode Analisis dalam Denzin, N.K. & Lincoln, Y.S. (eds.) Handbook of Qualitative Research*. Yogyakarta: Pustaka Pelajar.

Nayeri, M.D, Mashhadi, M.M, and K. M. (2008). Universities Strategic Evaluation Using Balanced Scorecard. *Journal World Academy of Science, Engineering and Technology* 36.



- Niven, P. R. (2008). *Balanced Scorecard Step-By-Step For Government and Nonprofit Agencies. Second Edition.* New Jersey: Wiley.
- Parmenter, D. (2010). *Key Performance Indicators.* New Jersey: Jhon Wiley & Sons.
- Powar, K.B., Panda, Santosh., Bhalla, V. (2000). *Performance Indicators in Distance Higher Education.* New Delhi: Aravali Books International (P) Ltd.
- R. Eko Indrajit dan R Djokopranoto. (2006). *Manajemen Perguruan Tinggi Modern.* Yogyakarta: Andi.
- Rangkuti, F. (2011). *SWOT Balanced Scorcard.* Jakarta: Gramedia.
- Ryan Watkins and Roger Kaufman. (2003). Strategic Planning for Distance Education. In M. G. Moore & W. G. Anderson (Eds.). In *Handbook of Distance Education.* Mahwah, NJ: Erlbaum.
- Schobel, K., & Scholey, C. (2012). Balanced Scorecards in education: Focusing on financial strategies. *Measuring Business Excellence*, 16(3), 17–28. <https://doi.org/10.1108/13683041211257385>
- Strang, K. D. (2010). Education Balanced Scorecard for Online Courses. *Journal of Cases on Information Technology*, 12(3), 45–61. <https://doi.org/10.4018/jcit.2010070103>
- Stufflebeam, D. L. (2007). *Evaluation theory, models and application.* ASA: Willey.
- Sugiyono. (2013). *Memahami Penelitian Kualitatif.* Bandung: Alfabeta.
- Supriyatno, E. (2014). KPI with BSC. Materi Pelatihan BSC Tempo Kumunitas, 2014.
- Taylor, J., & Baines, C. (2012). Performance management in UK universities : implementing. *Journal of Higher Education and Policy Management*, 34(2), 111–124. <https://doi.org/10.1080/1360080X.2012.662737>
- Umayal Karpagam, P. L., & Suganthi, L. (2012). A strategy map of balanced scorecard in academic institutions for performance improvement. *The IUP Journal of Business Strategy*, 9(3), 7–16. Retrieved from <http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:A+Strategy+Map+of+Balanced+Scorecard+in+Academic+Institutions+for+Performance+Improvement#0>
- Weigert, K. M. (1998). Academic Service Learning: Its Meaning and Relevance Purposes of Higher Education Institutions, (73).



International Journal of Innovation, Creativity and Change. www.ijicc.net
Volume 12, Issue 12, 2020

Wilson, C., Hagarty, D., & Gauthier, J. (2004). Results using the balanced scorecard in the public sector. *Journal of Corporate Real Estate*, 6(1), 53–64.
<https://doi.org/10.1108/14630010410812234>

Appendix

Performance Level Achievement from Customer Perspective

Component Criteria	Measurement	Significance Level	Performance	Achieved Performance in UT Annual Report	
				2013	2014
Usefulness to the Customer					
P1	Study time completion	ST 50% students finished their study on time	3.03	2.97	
P2	Improving the quality of graduates	P2 IQ 1 60% graduates with an average minimum GPA 2,50	3.19	2.95	63%
		P2 IQ 2 Courses graduation level reached an average of 88%			94%
P3	Number of registered students in every study program	P3 NR 1 370 new and old students registered and re-registered each semester	3.00	2.75	91.14
		P3 NR 2 Having 300 PPB participants			168%
P4	Total number of students in every study program	P4 TN 1 There is a minimum 5% increase in the number of active students that registered in every study program	3.00	2.72	
		P4 TN 2 60% students re-registered			
P5	Geographical area balance	P5 GA1 balanced number of students from every province in Indonesia	2.75	2.81	
		P5 GA2 A balanced number of students from the western part of Indonesia, the middle part of Indonesia, and the eastern part of Indonesia			
		P5 GA3 A balanced number of students from urban areas and from small towns and rural areas			
Quality of the services offered					

Component Criteria	Measurement	Significance Level	Performance	Achieved Performance in UT Annual Report	
				2013	2014
P6	Study program accreditation	P6 Pac Accreditation from BAN-PT for the degree program with minimum accreditation level B	3.46	3.22	71%
P7	University rankings	P7 Ur Renewal of international quality certification from ICDE	3.30	3.11	100%
P8	ISO 9000 Certification	P8 ISO	3.16	3.22	75%
Cost of the services offered					
P9	The price of tuition for one credit and the average cost for one student in one year	P9 Price1 The nominal fee that must be paid by the students for every credit is comparatively lower than other Colleges	2.97	2.97	
		P9 Price2 The nominal fee that must be paid by the bachelor (S1) students every year with the average 22 credits in one semester is no more than Rp2,900,000			
		P9 Price3 The average price of study materials is Rp 60,000			

Performance Achievement from Internal Business Process Perspective

Component Criteria	Measurement	Significancy Level	Performance	Achieved Performance in UT Annual Report	
				2013	2014
Faculty Developments					
PPP1	Quality improvement of the lecturer's scientific research	PPPI Q1 Research is conducted with quality in accordance to the Research Master Plan (RIP) target by 75% of lecturers	3.19	3.00	75%
		PPPI Q2 Conducted 250/300 research titles			76% 112
		PPPI Q3 Publish at least 35 % of all conducted research in national scientific journals			63%
		PPPI Q4 Publish at least 10 % of all conducted research in scientific journals, including international scientific journals.			20% 910
		PPPI Q5 Disseminate at least 65% of all conducted research in either national or international scientific meetings			146% 232
PPP2	Scientific publication ratio of the lecturer in each year	PPP2 SP1 Publish at least 35 % of all conducted research in national scientific journals	3.11	2.84	63%
		PPP2 SP2 Publish at least 10 % of all conducted research in scientific journals, including international scientific journals.			20% 910
		PPP2 SP3 Disseminate at least 65% of all conducted research in either national or international scientific meetings			146% 232
PPP3	Quality improvement of	PPP3 QIS1 Organize at least 1 (one) program of community service	3.03	2.92	

Component Criteria	Measurement	Significancy Level	Performance	Achieved Performance in UT Annual Report	
				2013	2014
the community services	PPP3 QIS2 Organize community empowerment programs in at least 16 (sixteen) target areas, including areas covered by UPB JJ-UT			200%	218,
	PPP3 QIS3 Organize at least 1 (one) program of community services on a national scalel			150%	300
	PPP3 QIS4 Organize MOOCS (one for each faculty) and PPs for each semester				260
The Quality of the Supporting Facility					
PPP4	Improve and solidify partners hip networking with third parties	PPP4 IP1 Providing registration service to at least 150,000 non-student teachers and 400,000 student teachers	3.03	2.89	78%
		PPP4 IP2 Having partnership with at least 75% of provincial and district/city governments, 15 government agencies, 30 educational institutions, and 10 non-government organizations			0%
		PPP4 IP3 Providing internet access points for students through partnership with internet access providers, which is owned by private sector or community in at least 50% of districts/cities			0%
	Continuous partners hips that support academi c operatio	PPP4 IP4 Providing mobile registration services (traveling the area), especially to Pend as students in all regional office			30%
		PPP4 IP5 Offering scholarship			130

Component Criteria	Measurement	Significancy Level	Performance	Achieved Performance in UT Annual Report	
				2013	2014
nal and administrative needs	or relieving study costs to at least 5% of new students				
	PPP4 IP6 Establishing new partnerships with 20 government/private institutions at the national and international level				270
	PPP4 IP7 Partnering with IKA-UT on improving services, recruiting, and providing scholarships for students				80%
	PPP4 IP8 Partnering with the local government on socializing, recruiting, operating services, and providing scholarship to the students				100
	PPP4 IP9 Possessing TIK based co-management system that is integrated with SRS application				90%
PPP5	Improving reputation of the institution by creating attractive website, representative regional office building, and acknowledgement of the	PPP5 IR1 Staff are able to communicate with society regarding the important existence and excellence of UT	3.19	3.16	100%
		PPP5 IR2 Acknowledgement from society that UT is able to utilize the latest modern technology			75%
		PPP5 IR3 Owning community network to actively help in increasing funds for UT from various resources			<10%
		PPP5 IR4 Acknowledgement as a university that is able to attend to citizens with special needs who live in isolated regions, or			100%

Component Criteria	Measurement	Significancy Level	Performance	Achieved Performance in UT Annual Report	
				2013	2014
academic services from the education community	students with disability living overseas				
	PPP5 IR5 Providing the result of contact centre trial				60%
	PPP5 IR6 User friendly website is available				70%
	PPP5 IR7 Socialization and promotion programs and activities are available through various media and methods to reach all layers of society				100
	PPP5 IR8 Public Relations Team is available in every unit to convey the excellence of UT to the public and to initiate partnerships				100
3.3 Human Resources Quality					
PPP6 Always pushing the human resources of UT to study independently at the individual level, group level, or organization level until everyone becomes very proficient in their own	PPP6 HR1 80% of the lecturers have academic Magister qualification and 90% of the lecturers have academic Doctor qualification	3.16	2.89	61.67%	96.6
	PPP6 HR2 80% of the education personnel are competent in their respective duties				
	PPP6 HR3 61% of the lecturer has been certified				

Component Criteria	Measurement	Significancy Level	Performance	Achieved Performance in UT Annual Report	
				2013	2014
	work				
PPP7	Development of the organization culture that is oriented in performance quality	PPP7 OC1 Possessing the development model of the organization culture that is oriented in performance quality	3.32	3.11	100
PPP8	Development of the innovative cultural principle of the organization	PPP8 IC1 Possessing the development model of the innovative cultural principle of the organization	3.19	2.97	100
PPP9	Development of integrated quality assurance system that comply with the standard	PPP9 DI1 Possessing quality assurance system for the management of PTJJ and academic products that has high quality, keep up to the national, regional, and/or international quality	3.26	3.17	
		PPP9 DI2 Every unit possesses one internal Auditor to monitor the implementation of Central Unit and regional office QA			96%
		PPP9 DI3 Quality acknowledgement from external parties to the field of academic management and long-distance learning management			75%

Component Criteria	Measurement	Significancy Level	Performance	Achieved Performance in UT Annual Report	
				2013	2014
PPP9 DI 4 Obtaining BLU AA performance ratings	PPP9 DI 5 An integrated unit performance appraisal system design is available with ICT-based employee performance appraisal			100	NA
PPP10	Quality Assurance System through Human Resource audit	PPP10 QA Applying integrated quality assurance system that conforms to SPM-PT standard and to the individual and unit performance evaluation system	3.11	3.08	50%
3.4 The Use, Development, and Application of Technology					
PPP11	Ratio Computer/Staff	PPP11 RC The ratio between the number of computers with the number of staff and lecturers is at least 1:3	3.19	3.24	
PPP12	Ratio Computer/Lecturer	PPP12 RCL	3.17	3.22	
PPP13	Sufficiency of the facility's equipment to support the long-distance learning process in the central UT and in regional	PPP13 FEq Possessing UPBJJ-UT office buildings that is equipped with standardized facilities in 90% of UPBJJ-UT locations	3.22	3.31	100

Component Criteria	Measurement	Significancy Level	Performance	Achieved Performance in UT Annual Report	
				2013	2014
office					
The Quality of the Supporting Facility					
PPP13	Sufficiency of the facility's equipment to support the long-distance learning process in the central UT and in regional office	PPP13 FEq R Possessing UPB JJ-UT office buildings that is equipped with standardized facilities in 90% of UPB JJ-UT locations	3.22	3.31	100

Performance Achievement from Learning and Growth Perspective

Component Criteria	Measurement	Significance Level	Performance	Achieved Performance in UT Annual Report				
				2013	2014			
1. The Open University Performance from Customer Perspective								
1.1 Usefulness to the customer								
P1	Study time completion	P1 ST 50% students finished their study on time	3.03	2.97				
P2	Graduates quality improvement	P2 GQ1 60% graduates with an average minimum GPA 2,50	3.19	2.95	63%			
		P2 GQ2 Courses graduation level reached an average of 88%			94%			
P3	Number of registered students in every study program	P3 NR 1 370 new and old students registered and re-registered each semester	3.00	2.75	91,14 %			
		P3 NR 2 Having 300 PPB participants			168%			
P4	Total number of students in every study program	P4 TNS 1 There is a minimum 5% increase in the number of active students that registered in every study program	3.00	2.72				
		P4 TNS 2 60% students re-registered						
P5	Geographical area balance	P5 GA 1 A balanced number of students from every province in Indonesia	2.75	2.81				
		P5 GA 2 A balanced number of students from the western part of Indonesia, the middle part of Indonesia, and the eastern part of Indonesia						
		P5 GA 3 A balanced number of students from urban areas and students from small towns and rural areas.						
1.2 Quality of the services offered								

Component Criteria		Measurement	Significance Level	Performance	Achieved Performance in UT Annual Report	
					2013	2014
P6	P6 Study program accreditation	P6 Sac Accreditation from BAN-PT for the degree program with minimum accreditation level B	3.46	3.22		71%
P7	P7 University rankings	P7 UR Renewal international quality certification from ICDE	3.30	3.11		100%
P8	P8 ISO 9000 Certification	P8 ISO	3.16	3.22		75%
1.3 Cost of the services offered						
P9	The price of tuition for one credit and the average cost for one student in one year	P9 Price 1 The nominal fee that must be paid by the students for every credit is comparatively lower than other Colleges	2.97	2.97		
		P9 Price 2 The nominal fee that must be paid by the bachelor (S1) students every year with the average 22 credits in one semester is no more than Rp2,900,000				
		P9 Price 1 The average price of study materials is Rp 60.000				



Component Criteria	Measurement	Significance Level	Performance	Achieved Performance in UT Annual Report	
				2013	2014
4.1 Funding Source					
PK1	Growth/increase of the amount of funds compared to the previous year	PK 1 GI There is an increase in funding of at least 2% compared to the previous year	3.267	3.200	90%
PK2	Financing from donors for the development of new learning services		2.933	2.733	
PK3	Total increase in funding		2.933	3.067	
	Incomes from Academic activities				
PK4	The amount of funding received from research funds		2.750	2.400	
PK5	The amount of funding received from other activities related to either academic or non-academic services		2.933	2.533	100%
PK6	The increase in income from the students in		3.267	3.200	

Component Criteria		Measurement	Significance Level	Performance	Achieved Performance in UT Annual Report	
					2013	2014
	the form of tuition fees and other kinds of funding					
4.2 Financial management						
PK7	Available budgets can fund all financial requirements of the learning services	PK 7 AB 1 There is no budget deficit	3.400	3.467		
		PK 7 AB 2 At least 75% of budget utilization each year				
PK8	The amount of costs of one activity unit	PK 8 Cost Each allocated budget for one unit of activity can cover 100% of the cost for the intended activity	3.267	3.200		
PK9	The increasing amount of funding from the students	PK9 Inc Stud There is an increase in income of at least 2% in tuition fees	2.933	3.067		
PK10	Efficiency of teaching cost/student	PK10 Eff 1 At least 40% of the costs paid by the students are returned in the form of academic services.	3.133	3.000		
		PK10 Eff 2 At least 30% of the costs paid by the students are used to finance learning activities (example: tutorial services)				
PK11	Percentage of budget given directly to the learning activities	PK11 Bud The ratio between the services given is equal with the cost paid by the students	3.533	3.133		