

# PERFORMANCE OF ACADEMIC SERVICES IN DISTANCE EDUCATION: CUSTOMERS PERSPECTIVE

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## Abstract

*Customers perspective is one of perspective in Balance Scorecard that have to be concerned by organization, especially in organization of public sector. Since the driver in the balance scorecard in public organization is a mission to provide services to the public. The low achievement in this perspective will reduce total consumers in the future, although currently financial performance looks good. Universitas Terbuka (UT) is as educational Institution is one of public organization that is very concerned of this customer perspective, therefore UT will improve its services sustainably.*

*This research was conducted in eight UT Regional Office, whose respondents were students and stakeholders. Analysis Importance-Performance Analysis (IPA) of students showed that 27% of 33 services were assessed to be in Quadrant 1, 12 % was in Quadrant II, 57,5% was in quadrant III and 3,5% services assessed by students was in quadrant IV.*

*While IPA Analysis of stakeholders showed the assessment of academic services of UT, 50% was in quadrant II, 29% was in quadrant III, 14% was in quadrant IV and 7% of services was assessed be in quadrant I. This research indicates that the necessary of UT to review its academic services provided to the customers in order to increase customers' satisfaction.*

Keywords: Customer perspective, academic services, Balance Scorecard, CSI

## 1 INTRODUCTION

Balanced Scorecard is one of performance assessment that aims to evaluate the achievement strategic targets set by an organization. Balanced scorecard in the beginning was developed as a system of working measurement in 1992 by Dr. Robert Kaplan and Dr David Norton at Harvard Business School. Kaplan and Norton (1996) stated that balance scorecards :

*"... a set of measures that gives top managers a fast but comprehensive view of the business... includes financial measures that tell the results of actions already taken... complements the financial measures with the operational measures on customers satisfaction, internal process, and the organization's innovation and improvement activities-operational measures that are the drivers of the future financial performance*

Meanwhile Anthony, Banker, Kaplan and Young defined balanced scorecard as : *"a measurement and management system that views a business unit's performance from four perspectives: financial, customers, internal business process, and learning and growth."* The Customer perspective addresses how a company creates value for its customers (Atkinson et al . 2012).

At the beginning of concept development of Balanced Scorecard was designed for business organization, but in further development starting to be implemented in public sector organization and other non-profit organizations The need for an appropriate performance measurement system in the public sector, based on ideas generated in the private sector, has been identified and realized for a long time (Green, 1994). Since the early 1980s the public sector has experienced major. The earliest evidence of the use of the BSC

specifically, in higher education, is provided in O'Neil et al. (1999). O'Neil et al. (1999) advocated the need for application of the BSC in higher education on the basis that universities are increasingly being held accountable for the outcomes that they produce. According to them, the change in attitude among university stakeholders is a result of growing expectations from institutions imparting higher education. (Sayed, 2013).

In public organization, Customer perspective is a very important orientation. Because the differences between public sector and business mainly lies in their objective. Public sectors are more oriented for the public service interests, while business sectors are more oriented for gaining profits. Even though the aim of public organization is not for gaining profits, but one measurement method of effectiveness and efficiency is required in providing services to the society

UT (Open University) is an institution of long-distance education need to pay attention to customer perspective. Since customers in university are not only students but other parties who are interested in university graduates and also third parties that participate in financing the education.

According to Sayed, cited in (Burrows and Harvey, 1992) one of the major problems for universities is the notion of multiple customers which has given rise to the concept of stakeholders. This term can be expanded to include a variety of stakeholders, including students, parents, employers, teaching and non-teaching staff, government and its funding agencies, accreditors, validators, auditors and assessors (including professional bodies) and even society as a whole.

The development of online learning model requires strategy of institution development and performance measurement in the long-term. An ever changing environment becomes one of important indicators to plan an accurate strategy. The research of Aistele and Beuteil (2004) explained some factors related to students performance indicator in long-distance education program. The most important factor in long-distance student performance is a design of Online learning, mainly the students involvement and activities in tutorial online.

This involvement is related to the gender and age, where women and adult age have a higher involvement. This research result shows that it is required the strategies and policies to make changes in design of online learning. Santovec (2004) stated that since strategic planning and system design modeling that had developed in face-to-face education model, tended to be ignored while made a plan and implemented long distance educational program. One of challenges in conducting long distance education was how to assess the success of the program and communicate the student academic with administrator and the impact of this program on students success (Campora, 2013). Whereas long distance education must be able to give educational experiences to its students, feedback and services on some social economic background and regions with their physical meeting limitation (Santovec, 2004)

Phenomenon of long-distance educational services are very interesting to be studied, including at UT (Open University). Therefore it is required to evaluate a performance of UT (Open University) in providing educational services to students and stakeholders who have a role in financing education and also becoming a user.

## 1.1 Performance Evaluation on Customer Perspective

Performance evaluation uses Key performance Indicator (KPI). KPI represents a set of measures focusing on those aspects of organizational performance that are the most critical for the correct and future success of the organization. KPI shows what action should be done. Before becoming a KPI, performance measurement, should be tested first to ensure the KPI can produce the desired behaviour (Parmenter, 2010)

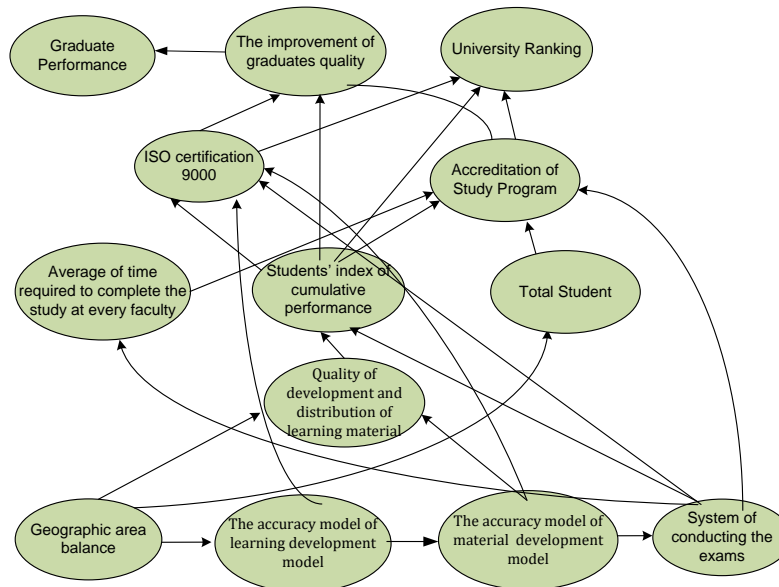
KPI Preparation of this research refers to Key Performance Indicators developed by R. Eko Indrajit and R Djokopranoto Powar K.B Panda Santosh, Bhalla, Veena and Kaye Shelton and is adjusted to UT strategic plan. Indicators developed are related to academic service performance provided to students and stakeholders. Performance indicator on customer perspective at UT is presented in Table 1 as the following:

Table 1. Indicators of Academic Performance Evaluation of UT (Open University) with BCS, Customer Perspective

Criteria		Measurement
<b>A. Utilities for customers</b>		
1.	Graduates Quality	60% of graduates have average achievement index (IPK) minimum at 2,50
2.	Graduates Performance	UT students are able to work according to their fields and able to apply the material course they got during study at UT in workplace.
2.	Completion time of study	50% of students completed their study on time
3.	The suitability of Study program to the needs of students in workplace.	75% study programs offered are suitable to students' needs.
4.	Development and Diversification of Academic Program	Four (4) postgraduates programs and three (3) undergraduates programs get accreditation ranking minimum B from BAN-PT
<b>B. Quality service offered</b>		
	Accreditation of Study Program	Accreditation from BAN-PT for undergraduates program with accreditation ranking minimum B .
1.	University ranking	Obtained quality recognition from external parties in field of long-distance academic and learning management
2.	Certification of ISO 9000	
3.	Quality of learning material	Learning material received can be read well and no defects
4.	Distribution of learning material	80% of learning material received by students on time
5.	Learning aids service	- 75% students can access learning aid services in form of face-to-face tutorial, online tutorial, radio tutorial and web supplement. - Tutorial is implemented with good preparation
6.	Registration system	100% students can do registration on time
7.	Implementation of Final semester exams	- 70% location of exams can be easily reached by students - Achieve an average college graduation rate of 88%
8.	Improvement of new students and re-student services throughout archipelago and abroad	Have new students and re-students registration in every semester around 370.000 persons
<b>C. Price of Service Offered</b>		
1.	Price of lectures/course per semester credits system	- Nominal Cost paid by students per semester credits systems relatively low compared to other universities. The amount of tuition fees paid by students every year with average 22 semester credits system is not more than Rp. 2.900.000 per year for undergraduate (S1). - Average cost of learning material Rp.60.000
2.	Average cost per students per year	

After the preparation of Key Performance Indicators, then strategy map is developed as a visualization of the involvement among a number of strategic targets in forms of visualization of causal relationship. Map strategy is used as a reference by UT in evaluating the applied strategy and studying the relations between interrelated variables. By seeing strategy map, then UT is able to see variables which need to get attention and improvement in order to increase the overall performance

Strategy Map of UT academic services, UT focus on customer perspective that is seen at Picture 1 in the following;



Picture 1 : Strategy Map of UT (Open University) in Perspective Balanced Scorecard

At Picture 1 is seen that variables which take effects the service performance is an accuracy learning design that determine the accuracy of learning material development and system of conducting the exams. The accuracy of learning design and model of learning material development will increase ISO certification. The increased performance of this variable also effects very much to the improvement students credit achievement (IPK) and then is followed by an increased quality of graduates and university rankings. On the whole, an increased student academic services performance will improve the performance of graduates evaluated by stakeholders.

## 2 RESEARCH METHODOLOGY

### 2.1 Respondent

This research is conducted on students of UT (Open University) with sample of 235 students at 8 (eight) UT Regional Office (Denpasar, Jakarta, Jayapura, Kupang, Makasar, Medan, Padang and Samarinda). Respondent of stakeholders are 39 persons, comes from four (4) UT Regional Office (Denpasar, Jayapura, Padang and Samarinda).

### 2.2 Technical and Analysis Data

Analysis of UT Academic services performance uses analysis tools of Importance- Performance Analysis (IPA) and Customer Satisfaction Index (CSI). Importance-Performance Analysis (IPA) that is used to find out the gap between performance and expectation of service products and Customer Satisfaction Index that is used to analysis the level of the overall customer satisfaction. Importance-Performance Analysis consists of 2 components; they are quadrant analysis and gap analysis. With using quadrant analysis, UT can find out the consumers' responses towards the products of services, which are plotted based on the

level of importance and performance of those product services. While gap analysis is used to see the gap between performance of product services and consumers expectation of those product services.

Steps for quadrant analysis are :

- a. Calculate the average level of the importance and performance of each product services with the formulas are followings:

$$\overline{X}_i = \frac{\sum_{i=1}^k \overline{X}_i}{n} \qquad \overline{Y}_i = \frac{\sum_{i=1}^k \overline{Y}_i}{n}$$

Where :

$\overline{X}_i$  = Weighted average of performance rate of i-th product service

$\overline{Y}_i$  = Weighted average of importance rate of i-th product services

n = Total Respondent

- b. Calculate the average level of importance and performance of the whole product services with using formulas are following:

$$\overline{\overline{X}}_i = \frac{\sum_{i=1}^k \overline{X}_i}{n} \qquad \overline{\overline{Y}}_i = \frac{\sum_{i=1}^k \overline{Y}_i}{n}$$

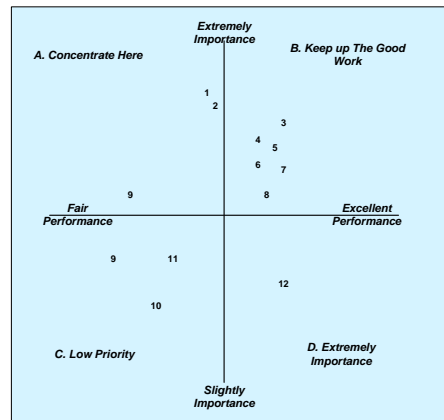
Where:

$\overline{X}_i$  = Average value of product service performance

$\overline{Y}_i$  = Average value of product services interest/importance

n = Total product services

This value cuts perpendicular to horizontal axis, which reflects performance of product services (X), while value that cut perpendicular the vertical axis, which reflects the importance/interest of product services (Y). After obtaining performance weight and importance product services, also average value of performance and importance product services, then those values are plotted into karfesius diagram as is shown at Picture 2.



Picture 2 Importance-Performance Analysis Grid

This diagram consist of four (4) quadrants I Main Priority (Concentrate Here). It loads attributes that are considered important by respondents, but in facts those attributes have not yet been suitable with the expectation (satisfaction level gained is still very low).

Quadrant II Keep up The Good Work. It loads attributes that are considered important by respondents and have been suitable with the perceived of respondents, therefore the satisfaction level is relatively

high. Quadrant III Low Priority. It loads attributes that are considered less important of influences by respondent and in facts its performance is not too special.

Quadrant IV Excessive (Extremely importance). It Loads attributes that are considered less important by respondent and perceived as too excessive, therefore attributes that come into this quadrant can be reduced.

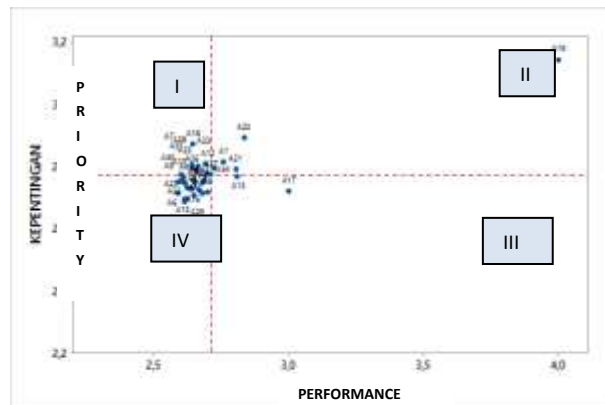
### 3 RESULT AND DISCUSSIONS

#### 3.1 Importance-Performance Analysis (IPA) Students

Assessment of academic service performance, Open University (UT), with using Importance Performance Analysis (IPA), showed that some academic service performance of UT still needed to

be improved. Evaluation with using Importance Performance Analysis (IPA) was done to see the gap between perceptions of academic service expected by students with performance of services that they feel. The result of process with Importance Performance Analysis (IPA) shows that services evaluated, have already been in good performance and some services need to be improved by UT in the future.

On the whole, students evaluates performance of UT academic services be in quadrant I and quadrant III. Of 33 UPBJJ services being asked to the students, 9 attributes (27%) be in quadrant I. Academic services are in quadrant I relates to model of long-distance learning (A7), material of learning aids (A12), Final Semester Exam (A18). Registration services (A23, A35, face-to-face tutorial (A27, A28). Tutorial online (A30,A31)



Picture 2. Diagram Kartesius *Importance-Performance Analysis (IPA) STUDENT*

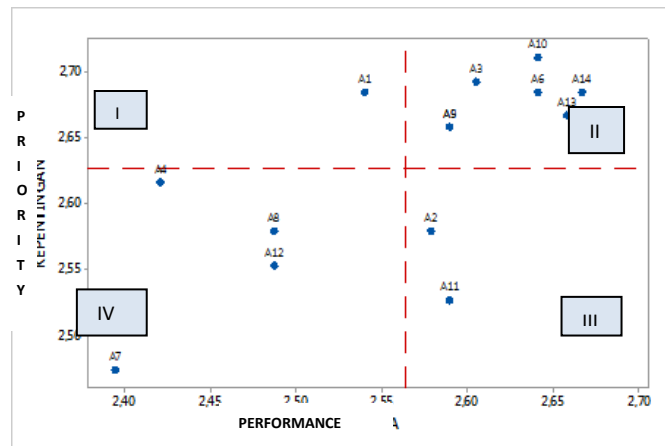
#### 3.2 Importance-Performance Analysis (IPA) Stakeholders

Level of satisfactions surveyed to the stakeholders relates to their satisfaction towards performance of UT graduations or their staffs that currently is still in the process of studying in UT. Survey on stakeholders who can be reached are 38 respondents in 4 location of UPBJJ UT.

Performance of UT academic services that impact on quality of UT graduates assessed by stakeholders be in quadrant II around 50% of services attributes. This shows that students performance and graduations and also UT services is considered important by stakeholders and have satisfactory performance. Attributes in quadrant II are attributes which relates to the performance of UT graduates students (A9,A10). It means that stakeholders assess the importance of the increased achievement and mastery of science of students or UT graduates and the achieved results are also very satisfactory. Other attributes are in quadrant II relates to provided academic services of UT, that is A3, A5, A6, A13, A14. Academic services conducted by UT in this quadrant are the aims and benefit of UT programs and learning, lecture/course material, Accreditation and tuition fee. The attributes of this academic services are also considered important by stakeholders and appropriate with what they feel, therefore the level of satisfaction is relatively high.

Attributes of academic services that are in quadrant III are 29% or four attributes. It means that this academic services are low priorities and considered less important by stakeholders. Performance of academic services in quadrant III are considered not too special. Those services attributes are A4, A7, A8, A12, relates to the accuracy of the study program, application of students independence/ graduates of technological application in working and flexibility of study time. Afterwards, 14% (two attributes of UT services attributes that relates to students work quality and institution supports are in quadrant IV, it means that these attributes are considered less important by consumers and felt too much.

Kartesius Diagram of UT performance and academic services that is evaluated by stakeholders and the explanation of services position in every quadrant is presented at picture 3.



Picture 3. Diagram Kartesius Importance-Performance Analysis (IPA) Stakeholders

Attributes that are main priorities and must be noticed by UT towards students/graduates are graduates performance that is located in quadrant 1 (A1). It means that it requires a periodically monitoring by University that relates to performance of students/graduates. This is due to these attributes are considered important by stakeholders, but in reality in the field, they have not yet been as expected.

Table 2. Importance Performance Analysis Stakeholders each Quadrant

Attributes	Descriptions	Quadrant
<b>A. Performance of Students/Graduates</b>		
A1	Performance of Students/graduates of UT (Open University)	I
A2	Working qualities of students/graduates of UT (Open University)	IV
A7	Application of students independence attitude	III
A8	Application of using technology of students/graduates in completing taks in workplace	III
A9	There is an increased achievement of students/graduates after completing study at UT	II
A10	There is an increased mastering the knowledge by students/graduates after completing study at UT.	II
<b>B. UT Academic Services</b>		
A3	Accuracy of program objective and learning of UT (Open University) with the needs of institutions	II
A4	Accuracy of an available Study Program at UT (Open University) with the needs of workplace	III
A5	Benefit of Education program at UT (Open University) in improving performance of staffs/teachers	II
A6	Application of lecture material at UT (Open University) for staffs/teachers in improving understanding the task	II
A12	Flexibility of learning model of UT (open University) with an available working time	III
A13	Ranking/Accreditation of University/Study Program	II
A14	Total tuition fee at UT (Open University)	II
<b>Institution Support</b>		
A11	Institution support for staffs/teachers to study at UT (Open University)	IV

The result of tjis research shows that application of balanced scorecard in education world is very important, since it can guide university in achieving Vision and Mission in using scheme “plan-do-check-act. Hladchenko (2015) explained Application:

All the perspectives of the Balanced Scorecards developed by universities despite different headings are focussed on the development of the personnel, education and research, improvement of the quality according to the requirements of the external and internal stakeholders of the higher education institution. Scorecard presents the balanced development of all activities of the higher education institution fulfilment of which should ensure its high level of performance of the higher education institution. Furthermore, Kelly Jo Kime (2015) also stated that to achieve long-run sustainability, organizations should incorporate the triple bottom line into the BSC. The triple bottom line, also referred to as “the 3 P’s”, is a measure of sustainability incorporating three dimensions: people, planet, and profit.

Customer perspective needs get pay attention, since in non-profit organization such as UT (Open University), customer is a driver in balanced scorecard. Main mission in public organization is serving society. UT needs to focus on achievement of academic services performance, especially on academic services which valued by respondents is on Quadrant I. That Academic service is valued very important by respondents, but the performance needs to be improved. While, UT is necessary to maintain academic services in quadrant II. Those services are valued important by respondents and has good performance.

Research of Karpagam and Suganthi (2012) explains that the improved students satisfaction influences other perspectives. Obtained the education fund is related to the students satisfaction, while the increased grant funds are related to satisfaction of business society that in this context are key stakeholders. The improvement and growth of an internal process and learning cause the customer’s satisfaction and finally will impact on financial sector.



#### 4 CONCLUSION.

Based on evaluation of UT academic services, focus on customer perspective, can be concluded that UT is necessary to focus its attention on academic services provided to students through the improvement of services variables which directly related to the increased students capacity and graduates. The improvement of UT academic services will influence quality of graduates and stakeholders' satisfaction. Variables considered important by stakeholders are the increased capacity and graduates quality, especially in improvement of knowledge achievement and mastering the knowledge.

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