

ANALYSIS OF PERFORMANCE MEASUREMENT SYSTEM USING COMPETENCY-BASED BALANCES SCORECARD (A STUDY IN BANJARMASIN STATE POLYTECHNICS)

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Abstract

The purpose of this study is to analyze performance based on competency using Balance Scorecard which is measured by four perspectives : College Financial perspective, customer perspective (which divided into three parts : students, stakeholders and graduates), college internal perspective, and learning and growth process perspective. It is expected that this research would lead into development process of the college, and find out the weaknesses or strengths of college organization which would give impact to the increase of college's performance.

This is a quantitative descriptive research. Total amount of population in this research is 208 people, which consists of students from grade 5 of business administrative. The population is chosen in consideration that they have experienced the longest term of learning process. Samples are taken from 4 classes which includes 106 students. Graduates are chosen from those who have been graduates and have at least 3 years working experience, that make 102 people, meanwhile employers are represented by 33 lecturers in Banjarmasin State Polytechnic, and stakeholders are chosen from both government institution and non government institution that makes 27 institutions. Those institutions are chosen by graduates recommendation.

The result of reliability test of college financial perspective, customer perspective, university internal perspective and innovation and learning process perspective shows the value more than 0.6 alpha cronbach and it makes all of variables reliable. The average score of financial perspective is 3.514 and it shows that financial condition of the college is in good state, The average score of customer perspective is 2.947 which gives fair condition, the average score of stakeholders perspective is 3.418 that is in good state, and the average score of graduates is showing good state as shown in 3.119 point. College internal process perspective has the average score of 2.753 point and shows fair condition. Learning and growth perspectives average score is 2.929, shows fair condition.

Keywords : *Balanced Scorecard, Financial Perspective, Customer Perspective, Internal Process Perspective, Learning and Growth Perspective, College Performance*

INTRODUCTION

This study is mainly discuss the using of the idea of the four Balanced Scorecard perspectives which is taken to be applied in making evaluation and measuring college performance. Although this application is originally used in the profit sector, this application is also can be used to improve government management or non profit organization (Kaplan & Norton 1996:175). The measurement of performance is also used to asses the achievement of goals and objectives. (Vanany, 2009)

It is expected that this idea will aid manajemet revolution especially state

college management to contemporer performance measurement which is equal to businesss organization. Performance measurement is not only important to business institution, but also in education. Since it is considered as an important thing, Directorate general in Higher Education put Balanced Scorecard in new management format which is designed to increase the quality of higher education. Increasing education quality will be done by giving assessment, accreditation and institution self evaluation toward both public and private college (Soehendro, 1996). Performance assessment is an essential thing for an organization. To win

the global competition, organization performance has to reflecting assessment from one period to another.

College as a non profit organization is different from profit organization. The difference will also make different management pattern. Business organization has objective to maximize company profit, meanwhile non profit organization will give services without expecting rewards in return.

MATERIAL AND METHOD

Balanced Scorecard Perspective in Public Organization

1. Customer Perspectives

Public sector organization will give more attention to customers and fulfill customer needs to reach organization objectives. Organization management in of public sector has to be able to identify customer needs and expectation. Niven (2008:167) stated that customer is a group of people which directly having benefits from service given by the organization. There are many parties whom will get benefits from the service given by the organization. In customer perspectives, organization has duties to choose customer and have direct service from the organization.

2. Financial Perspective

Public sector organization and non profit organization need to manage their financial in effective ways. Public sector organization has limited financial source to give public service to the people. Niven (2008:34) stated that though public sector organization is an non profit oriented organization, the existence of financial perspective in *Balanced Scorecard* for non profit organization is still important. Without financial resources, organization can not operate successfully to fulfill customer demands.

3. Internal process Perspective

Internal process perspective is an important transitional aspect in *Balanced Scorecard*. within this perspective, organization focuses itself in giving customer needs and giving proposition value effectively. Internal process perspective answer those questions by giving ways to fulfill consumer needs. Each organization has its own unique and combination process. There are some main processes which can be considered when developing objectives of internal process perspective. Niven (2008:173) stated that those main process are:

1. understanding customer
2. constant innovation
3. operation process
4. offering service quality
5. partnerships to success.

4. Learning and growth perspective

The measurement of learning and growth perspective represents factors of efficiency which lead to the improvement of service quality toward customer. Employees skill is an important aspect which can force organization to develop employees training program in continuous way. Aspect which could bring organization achieving organization objective is the result of employees training, not only based on the employees attendance during the training. Oleh karena itu, diperlukan adanya keseimbangan antara partisipasi pelatihan dengan hasil pelatihan. Thus, accurate evaluation and measurement toward employees training program is needed (Niven, 2008:181). Moreover, psychological aspect is intangible asset of organization beside motivation, empowerment and direction. Good personnel capability will create good performance for organization. Measurement of those aspects is done by measuring employees' input toward organization, improvement and increase of

performance within individual limitation in the organization (Niven, 2008:184)

Method

Type of Research

This study is using survey method. To implement research planning proposed, activities are divided into 2 stages, the first stage is to analyze the result of distribution frequency from the questionnaire given to find out 4 *Balanced Scorecard perspectives* toward college performance. The next stage is designing *balanced scorecard* to create performance assessment system to ease evaluation in the future. The research is conducted for 1 year. Type of the research is descriptive research where the result will be given in qualitative and quantitative description. The purpose of this research is to analyze present situation in order to make self evaluation and improvement in the future using *Balanced Scorecard* design with *Integrated Performance Measurement System (IPMS)*.

Scope of Research

This research analyzes performance measurement system using balance scorecard with 4 perspectives, based on Department's objectives. Determining performance measurements which called KPI (Key Performance Indicator). Obtaining KPI validation. Specifying KPI. Appraising KPI. Deploying questionnaires according each indicators perspectives, statistical analysis, KPI measurement and each balance scorecard perspectives improvement recommendation.

Research Site

Place of research conducted is Banjarmasin State Polytechnics, especially in Business administration department. Reasons for the selection object is that business administration department have the biggest number of students, besides that researcher understand the condition in

that place very well. Some of research objects also conducted in Banjarmasin state polytechnics scope, since some aspects of the research is in Banjarmasin state polytechnics scope.

Population and Sample

Total amount of population in this research is 208 people, which consists of students from grade 5 of business administrative. The population is chosen in consideration that they have experienced the longest term of learning process. Samples are taken from 4 classes which includes 106 students. Alumni/ graduates are chosen from those who have been graduates and have at least 3 years working experience, that make 102 people, meanwhile employers are represented by 33 lecturers in Banjarmasin State Polytechnic, and stakeholders are chosen from both government institution and non government institution that makes 27 institutions. Those institutions are chosen by alumni/graduates recommendation.

Research Variable and Measurement

There are 4 variables in this *Balanced scorecard* research:

Financial perspective variable

Financial perspective variable is financial condition of the organization, it is including organization income, both from government or from other sources, operational cost, and how the organization give funds to its operational activities, also management ability to manage its finance effectively

Customer Perspective variable

Customer perspective is a condition where college user or stakeholders are those whom have direct benefits from the college. There are three kinds of customers; students, stakeholders and graduates.

Students are recent user of the college, where they are having experience and can measure learning process, methods,

systems, academic activities and extra curriculum activities which are given by lecturers beside service satisfaction level of academic and financial section of the college.

Stakeholders perspective is a condition where companies as recruiter of graduates can have benefits based on employees ability, company will give employee assessment based on their adaptive ability, teamwork, communication, IT development, application of knowledge, and contribution toward organization development.

Alumni perspective is a condition where alumni having direct experience after they graduate from college. It is measured by waiting time in having their first job, conformity between theories and practice, ease of getting a job and conformity between salary and expected career.

Internal process perspective variable

Variable of Internal process perspective is performance assessment which is conducted in 3 sections; those are academic and students, administration and finance, and student activities, it is to find out whether this sections is supported by competent employees, starting from recruitment process, lecturer competencies, literature, library, facilities and infrastructure, supporting technology, laboratories, educational level, academic activities and other activities which supporting organization activities and development.

Learning and growth perspective variable

Learning and growth Perspective is a condition where employees are supported by organization to learn in order to make organization grow. Organization is not only demanded to keep forward, but also to support employees needs. It will create satisfaction atmosphere within the organization, and include employees to reach organization objectives.

RESULT AND DISCUSSION

College's financial perspective variable

The average answer of questionnaire given that describes financial perspective can be seen in table 1 and table 2 where of all the answers given, financial perspective has average score at 3.514 and we can say that it is in a good state, which means that in this perspective Banjarmasin state polytechnics is not having financial problem yet, since Banjarmasin state polytechnic is funded by government based on budget proposed by management plan, although there are some obstacles, this condition is fortunately still in line with college activities. Below is priority level results which is used to repair the whole balanced scorecard perspectives in order to increase performance within the assumption as follow:

Table 1. Priority level Improvements
Based on Average Value

| Average score | Priority level Improvement | Colour |
|---------------|----------------------------|--------|
| 1 s/d 2.99 | top priority | Red |
| 3 s/d 3.99 | middle priority | Orange |
| 4 s/d 5 | lower priority | Green |

Table 2. Priority Level Improvement
Financial Persfektive Variable

| Item | Mean | Priority Level Improvement |
|------|--------|----------------------------|
| PF1 | 2.5714 | Top priority |
| PF2 | 3.7143 | Middle priority |
| PF3 | 3.0000 | Middle priority |
| PF4 | 3.5714 | Middle priority |
| PF5 | 3.7143 | Middle priority |
| PF6 | 3.7143 | Middle priority |
| PF7 | 3.8571 | Middle priority |
| PF8 | 3.5714 | Middle priority |
| PF9 | 4.0000 | Lower priority |
| PF10 | 3.4286 | Middle priority |

College's customer perspective variable

The average score of customer perspective is 2.947 or is in fair condition, it means that overall this variable becomes top priority and must be considered to be improved by management of Banjarmasin state polytechnics.

Table 3. Priority Level Improvement Customer Persfektive Variable (students)

| Item | Mean | Priority Level Improvement |
|-------|------|----------------------------|
| PPM1 | 2.96 | Top priority |
| PPM2 | 3.09 | Middle priority |
| PPM3 | 3.02 | Middle priority |
| PPM4 | 3.75 | Middle priority |
| PPM5 | 3.28 | Middle priority |
| PPM6 | 3.13 | Middle priority |
| PPM7 | 2.42 | Top priority |
| PPM8 | 2.34 | Top priority |
| PPM9 | 2.72 | Top priority |
| PPM10 | 3.53 | Middle priority |
| PPM11 | 3.21 | Middle priority |
| PPM12 | 3.25 | Middle priority |
| PPM13 | 3.25 | Middle priority |
| PPM14 | 2.58 | Top priority |
| PPM15 | 2.60 | Top priority |
| PPM16 | 2.85 | Top priority |
| PPM17 | 2.49 | Top priority |
| PPM18 | 2.96 | Top priority |
| PPM19 | 2.57 | Top priority |
| PPM20 | 2.58 | Top priority |
| PPM21 | 3.28 | Middle priority |

Total answers in the questionnaire toward customer perspective give average score as seen in table 4. It scores at 3.418 point or in a good state. In other words, although customer perspective in Banjarmasin state polytechnic is not a top priority, the performance however is still have to be improved.

Table 4. Recommendation improvement level of customer perspective variable (stakeholders)

| Item | Mean | Recommendation improvement level |
|-------|------|----------------------------------|
| PPEP1 | 3.74 | Middle priority |
| PPEP2 | 3.33 | Middle priority |
| PPEP3 | 3.44 | Middle priority |
| PPEP4 | 3.74 | Middle priority |
| PPEP5 | 3.78 | Middle priority |
| PPEP6 | 3.15 | Middle priority |
| PPEP7 | 2.74 | Top priority |

Total answers in the questionnaire toward graduates perspective give average score at 3.119 point as seen in table 5. It is categorized in good condition, which means graduates perspective of

Banjarmasin state polytechnics is not a top priority to be repaired, but still needs improvement. Therefore Banjarmasin state polytechnics has to keep its competency toward its graduates.

Table 5. Recommendation improvement level of customer perspective variable (graduates)

| Item | Mean | Recommendation improvement level |
|-------|------|----------------------------------|
| PPEA1 | 2.38 | Top priority |
| PPEA2 | 3.87 | Middle priority |
| PPEA3 | 3.52 | Middle priority |
| PPEA4 | 3.23 | Middle priority |
| PPEA5 | 3.16 | Middle priority |
| PPEA6 | 3.37 | Middle priority |
| PPEA7 | 2.30 | Top priority |

College’s internal process perspective variable

The average score of questionnaire in total describing internal process of the college can be seen in table 6 where the result shows that average score is 2.753 in other words it is in fair condition, it means that there are many improvements to be considered by managements in this perspective. Management has to understand that internal process in Banjarmasin state polytechnics is far less than expected if they want to create professional workers. This item has to be considered seriously by management. Below is table of field real condition, and it becomes top priority to be repaired:

Table 6. Recommendation level of college’s internal process perspective variable

| Item | Mean | Recommendation improvement level |
|---------|------|----------------------------------|
| PPIPT1 | 2.91 | Top priority |
| PPIPT2 | 2.45 | Top priority |
| PPIPT3 | 2.39 | Top priority |
| PPIPT4 | 3.12 | Middle priority |
| PPIPT5 | 2.30 | Top priority |
| PPIPT6 | 2.67 | Top priority |
| PPIPT7 | 3.06 | Middle priority |
| PPIPT8 | 2.94 | Top priority |
| PPIPT9 | 2.42 | Top priority |
| PPIPT10 | 2.03 | Top priority |
| PPIPT11 | 2.18 | Top priority |

| | | |
|---------|------|-----------------|
| PPIPT12 | 1.91 | Top priority |
| PPIPT13 | 2.85 | Top priority |
| PPIPT14 | 3.33 | Middle priority |
| PPIPT15 | 3.03 | Middle priority |
| PPIPT16 | 4.09 | Lower priority |
| PPIPT17 | 3.36 | Middle priority |
| PPIPT18 | 3.06 | Middle priority |
| PPIPT19 | 3.45 | Middle priority |
| PPIPT20 | 2.82 | Top priority |
| PPIPT21 | 3.27 | Middle priority |
| PPIPT22 | 3.79 | Middle priority |
| PPIPT23 | 2.21 | Top priority |
| PPIPT24 | 1.88 | Top priority |
| PPIPT25 | 1.76 | Top priority |
| PPIPT26 | 1.91 | Top priority |
| PPIPT27 | 1.85 | Top priority |
| PPIPT28 | 3.27 | Middle priority |
| PPIPT29 | 3.52 | Middle priority |

College's learning and growth perspective variable

Total answers in the questionnaire toward graduates perspective learning and growth perspective can be seen in table 7 where the average score is at 2.929 point as we can say that it is in fair condition, which means that this condition has to be given good attention and become top priority to be repaired. The total result is shown below:

Table 7. Recommendation level of learning and growth perspective variable

| Item | Mean | Tingkat Rekomendasi Pembenahan |
|--------|------|--------------------------------|
| PIPT1 | 3.70 | Middle priority |
| PIPT2 | 2.94 | Top priority |
| PIPT3 | 2.76 | Top priority |
| PIPT4 | 2.76 | Top priority |
| PIPT5 | 3.64 | Middle priority |
| PIPT6 | 3.36 | Middle priority |
| PIPT7 | 3.12 | Middle priority |
| PIPT8 | 3.39 | Middle priority |
| PIPT9 | 2.82 | Top priority |
| PIPT10 | 2.15 | Top priority |
| PIPT11 | 2.48 | Top priority |
| PIPT12 | 2.94 | Top priority |
| PIPT13 | 1.79 | Top priority |
| PIPT14 | 3.15 | Middle priority |

CONCLUSION, IMPLICATION, SUMMARY

1. Financial perspective. Based on the data processing using statistical instrument, shows that this perspective has 10 items as the benchmarks, and those items questioned are valid and reliable. Moreover, the aspects gives average score and description of financial aspects of 3.514 points or showing college financial condition of Banjarmasin state Polytechnics is in good condition. of 10 aspects developed, showed 1 item is supposed to be in top priority or in negative result, meanwhile there are 8 items in middle priority and 1 item as lower priority to be recommended to have improvement, which means that in this perspective Banjarmasin state polytechnics is not having financial problem yet, since Banjarmasin state polytechnic is funded by government based on management planning budget, although there are some obstacles, this condition has priorities, especially in operational cost realization item which is lower than the budget proposed (PF1), hence the result is fair enough, one thing that should be considered most is organization finance planning system, so that planning between organization income and outcome balanced.

2. Customer Perspective.

Data processing shows that this point is developed into 21 items, and those items are passed validity and reliability tests. The result show that 11 items are recommended as top priority or give negative results, 10 items as middle priority to be repaired or give positive results, whereas average score in total describes that customer perspective of students are at 2.947 point. It means that in this perspective students of Banjarmasin state polytechnics are not having good service as expected. Thus make this perspective is in top priority.

In customer perspective, there are 7 items as the benchmarks and those items show that 1 item in negative result, or recommended as top priority, 6 items show a better result as they are in positive conditions and become middle priority. Whereas the average score of answers of items in the questionnaire which describes customer perspective is at 3.418 point. It can be concluded that the score shows good condition, which means stakeholder perspective is not a top priority to be considered.

In customer perspective – graduates researchers have developed 7 items, and the result show that 2 items are recommended as the top priority, since they give negative contribution, and 5 items are recommended as middle priority as they are in better or positive state. Whereas the average total score of the questionnaire as described in table 4 gives 3.119 point, in which the score shows that the graduates perspective is in a good state. Graduates have short waiting time to find a job. But this is a temporary situation since Banjarmasin state polytechnics is facing a strict competition among colleges in Banjarmasin.

3. College's internal process perspective. The benchmarks in this study are 29 items and among of them, 17 items are recommended to be in top priority. It means that Banjarmasin state polytechnics still have many things to improve. Meanwhile there are 11 items which recommended as middle priority and 1 item as lower priority. Overall, the average score gives 2.753 point for fair condition. Therefore this perspective is still need improvement from management, since the internal process in Banjarmasin state polytechnics is far less than expected it it wants to create professional workers.

4. Learning and growth perspective. This perspective has 14 items of benchmarks, and data processing shows that there are 8 items that needs to be top priority or in negative condition. 6 items are recommended as middle priority since their condition is positive or in a good state. The average score of this perspective is 2.929 point which is in negative condition. Thus this perspective is has to be considered to be a top priority for the organization to improve learning and growth perspective.
5. This study can be further developed by other researchers by using similar method, similar variables but with different objects, or in different research scope which will give different or unique results, thus completing the results of further research.
6. It is recommended for further researcher to develop balanced scorecard model in other public organization, it can be in university scope, or elementary school thus the empiric consistency of the knowledge and theories used can be compared.
7. This study can be used as evaluation of the performance improvement of Banjarmasin state polytechnics or in similar college or polytechnics.

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