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A Comparison of Academic and Non-academic Staffs' Balanced Score Card Based E-Performance Appraisal: A Case Study

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ABSTRACT

Performance appraisal is a tool used by most organizations, including higher education, to appraise the performance of their staffs. Staffs in higher education in Indonesia are roughly divided into two groups, the academic and non-academic, and both groups are usually appraised annually. This study is based on a research of the e-performance appraisal used by Petra Christian University to appraise its academic and non-academic staffs. The performance appraisal used is based on Balanced Score Card (BSC) focusing on four perspectives, learning and growth, internal business process, customer satisfaction and financial performance. Data entries on the performance of the staffs are input on-line by the administrative departments responsible for the data. The data were collected using judgmental sampling and simple random sampling of forty academic and forty non-academic staffs. Using t-test, it is revealed that in the aspects of learning and growth, and financial performance, there is a discrepancy between the academic and non-academic e-performance. In the aspects of customer satisfaction and internal business process, there is no significant discrepancy.

CCS Concepts

Applied computing → E-learning.

Keywords

Pair comparasion performance; employee appraisal and balanced score card.

1. INTRODUCTION

The competitiveness of a nation is very much determined by how the human resources are able to manage the potentials that they have [1]. Education is a conscious and planned effort to actualize the learning process and condition to strengthen the religious spirituality, self-control, personality, intelligence, morality and skills needed for the individual, the society, the nation and the country as regulated by the constitution [2]. In the Indonesian education system, the focus on quality is not only the responsibility of the school and government, but the responsibility of all components, including the society. Therefore, the society needs to be concerned about quality, contributes to quality improvements and consistently focus on quality. Actualizing good quality in the life of a nation is one of the responsibilities of higher education that has a strategic role in enriching the intellectual life of a nation. One indicator of good quality is the achievement of its graduates in many areas of life, not only in academic achievements, but also in sports, arts etc. [3].

The three components involved in higher education as regulated by the Indonesian constitutions [2] and higher education ministerial regulation [4] are the students, the academic and the non-academic staffs. Students are defined as members of the society who undertake the effort to improve themselves using the learning process available in accordance to the major, level and type of specific education [5]. Academic staffs are defined as professional educators and scientists who transform, develop and disseminate knowledge and technology through education, research and community service [4]. Non-academic staffs are defined as members of the society who devote themselves and employed to support the management of higher education such as librarians, administrative staffs, technicians, laboratory staffs and information system experts (ibid.)

In Petra Christian University, performance appraisal for both the academic and non-academic staffs are done based on the same method, focusing on the e Balanced Score Card with the same variables which are learning and growth, internal business process, customer satisfaction and financial performance. Performance is the result of activities done by an individual (in quantity and quality) in accordance to her/his responsibilities. Performance appraisal is basically the key factor to improve an organization effectively and efficiently based on policies and programs conducted to boost the skills of its human resources. In general, performance appraisal on each individual staff would profit the dynamics of organizational growth to know the existing condition of the overall staffs' performance. Online data input by academic and administrative departments to the university website at sim.petra.ac.id, ensure the secrecy and validity of the data. Thus this research is done to find out whether there is a discrepancy between the performance of the academic and non-academic staffs

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based on the perspectives of BSC (Balanced Score Card) and e-performance appraisal.

2. BALANCED SCORE CARD (BSC)

Balanced Score Card is a management concept introduced a representative performance measurement system by Norton and Kaplan in 1992 a concept developed from a conventional performance appraisal which commonly measures only the company's financial aspect [6, 7]. His concept is based on an effective approach that balanced the appraisal between individual's performance and the organization's strategic plan. The approach is based on four perspectives, which are learning and growth, internal business process, customer satisfaction and financial performance [8]. BSC uses a list of indicators, financial and non-financial, in which an organization can control its operation and at the same time balances other indicators to control short term and long term performances. In addition, BSC is a management strategic system that defines the organization's mission and strategy into operational goals and performance indicators using four different perspectives.

BSC keeps the financial perspectives as financial indicator is beneficial to sum up the results of measured economic decision. Financial indicator would show how an organization's strategy, implementation and execution would contribute to the improvement of profit. The financial perspective would describe the consequences of the economic decision in the three other perspectives. The customer perspective defines the customers and the market segmentation where businesses would compete. The perspective of internal effort process defines the internal process need to give additional values to customer and owner. The last perspective, learning and growth, defines the capability needed by the organization to create long term growth and improvements. This last perspective is related to the other three main factors, the employee's capabilities, the information system's capabilities and the employee's attitude such as motivation and empowerment

2.1 BSC Design for Academic Staff's Individual Performance

Academic staffs everywhere have the same responsibilities, to teach and to do research. Esdar et al. [9] stated that in Germany, young academic staffs, especially, have the responsibilities both in teaching and research. Brew et al. [10] eksplores the productivities of the British and Australian academics in their research, using some indicators such as trainnings on how to do research, participation in research and being a member of a research team. The characteristics of the academic staff's performance as regulated by the Indonesian government, falls into three main areas which are teaching, research and community service. The government's requirement on the academic staff's performance in these three areas needs to be synchronized with the performance appraisal based on BSC.

Based on the mapping as in Figure 1, there are several indicators that fall into learning and growth, such as certification, formal education qualification and academic function career. For internal business process, some indicators that are used are attendance, work participation and corrections of audit findings. For customer satisfaction in the area of community service and research, the indicators used are academic staff's involvement and the satisfaction of the stake holders. In the area of teaching, the indicators used are students' satisfaction on teaching-learning process and the management's satisfaction of the academic staff's performance. For financial perspective, indicators used in the three areas are funding from external parties.

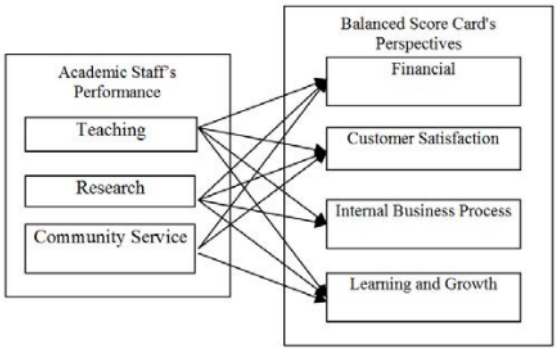

Figure 1. Mapping of academic staff's performance based on the Indonesian government's requirement using the BSC's perspectives

2.2 BSC Design for Non-academic Staff's Individual Performance

Reserach done by Ifedili [11] on private universities in Negeria, reveal that the number of non-academic staff is larger than the academic staff. The large number of the non-academic staffs are needed to carry out the administrative loads efficiently and effectively to cut cost

The performance characteristic of the non-academic staff is focused on their ability to do their responsibilities. For learning and growth, the indicators used are the superior's appraisal of their performance and the trainings they have attended. For internal business process, the indicators are attendance and percentage of the job done. For customer satisfaction, the approach used is service quality [12, 13,14]. The indicators are the satisfaction of the students and of the academic staffs. And for financial perspective, the indicator is the efficiency of operational cost.

3. RESEARCH METHOD

This research is conducted to compare each BSC's perspective between the academic and non-academic staffs. Data collecting was done with judgmental sampling, using the criteria such as length of working experience in the university is five years or more [15]. Data were taken from forty academic staffs representing all departments and forty non-academic staffs representing all working units. The collected data was analyzed using two independent sample t-tests.

The hypothesis used in this research is to examine the discrepancy of performance between the academic and non-academic staffs from the perspectives of BSC. The hypothesis is:

H_1: Is there any significant discrepancy between the academic and non-academic staffs from the financial perspective.
H_2: Is there any significant discrepancy between the academic and non-academic staffs from the internal business process perspective.
H_3: Is there any significant discrepancy between the academic and non-academic staffs from the customer satisfaction perspective.
H_4: Is there any significant discrepancy between the academic and non-academic staffs from the growth and learning perspective.

4. Hypothesis Testing and Discussion

Based on the calculation and the used of SPSS, the average discrepancy of the sample t-test between the academic and non-academic staffs are as the following:

Table 1. T-Test of academic and non-academic staffs based on the perspective of Financial

Financial	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.001	.982	-3.248	78	.002
Equal variances not assumed			-3.248	77.811	.002

Based on the calculation and the used of SPSS, the average discrepancy of the sample t-test between the academic and non-academic staffs from the financial perspective, there is a significant point of 0.002<significant point (0.05) accepted hypothesis H_1, which means that there is a significant discrepancy between the academic and non-academic staffs' performance. This discrepancy is caused by the organization's policy for academic staffs to gain external funding for their activities, especially in research as well as community service. The external funding gained would boost the university's performance.

Table 2. T-Test of academic and non-academic staffs based on the perspective of Customer Satisfaction

Customer Satisfaction	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	9.252	.003	-1.713	78	.091
Equal variances not assumed			-1.713	69.426	.091

Based on Table 2 the calculation and the used of SPSS, the average discrepancy of the sample t-test between the academic and non-academic staffs from the customer satisfaction perspective. There is a significant point of 0.091 > significant point (0.05) rejected hypothesis H_2, which means that there is no significant discrepancy between the academic and non-academic staffs' performance in the BSC customer satisfaction perspective. This finding is related to the same customers that the academic and non-academic staffs have, the students that they teach and serve and their superiors in their working units.

Table 3. T-Test of academic and non-academic staffs based on the perspective of Internal Business Process

Internal Business Process	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.017	.898	-.036	78	.971
Equal variances not assumed			-.036	77.707	.971

Based on the calculation and the used of SPSS Table 3 the average discrepancy of the sample t-test between the academic and non-academic staffs from the customer satisfaction perspective. There is a significant point of 0.971 > significant point (0.05) rejected hypothesis H_3, which means that there is no significant discrepancy between the academic and non-academic staffs' performance in the BSC internal business process perspective. There is no significant discrepancy because the two groups used the online integrated system for their work

Table 4. T-Test of academic and non-academic staffs based on the perspective of Learning and Growth

Learning & Growth	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	48.024	.000	-5.345	78	.000
Equal variances not assumed			-5.345	54.830	.000

Based on Table 4 the calculation and the used of SPSS, the average discrepancy of the sample t-test between the academic and non-academic staffs from the financial perspective, there is a significant point of 0.000<significant point (0.05) accepted hypothesis H_4 which means that there is a significant discrepancy between the academic and non-academic staffs' performance in the learning and growth perspective.

This significant discrepancy is caused by the organization's policy that is in-line with the government regulation that focuses more on the improvement of the qualification of the academic staffs. The system of academic careers and leveling for the academic staffs is also well-established and many scholarships are provided exclusively for academic staffs. As for non-academic staff, the opportunity to improve themselves is only through trainings.

For near future, another research will be conducted using the approach of Analytical Hierarchy Process (AHP) to calculate the weight of each indicator from BSC. Also, another related research topic is an examination on the impact of the employees' satisfaction to the performance evaluation system.

5. CONCLUSION

Based on the data analyzed, there are some findings:

1. Significant discepancy in the e-performance of the academic and non-academic staffs in relation to the financial perspective of BSC.
2. No significant discepancy in the e-performance of the academic and non-academic staffs in relation to the customer satisfaction perspective of BSC.
3. No significant discepancy in the e-performance of the academic and non-academic staffs in relation to the internal business process perspective of BSC.
4. Significant discepancy in the e-performance of the academic and non-academic staffs in relation to the learning and growth perspective of BSC.
5. Identifying in which area the significant discrepancy occurs between the academic and non-academic staffs would give input to the top management on how to lessen the gap of the discrepancy. The discrepancy in learning and growth that is found would not benefit the organization and it is necessary for the organization to create a system that is also beneficial for the non-academic staffs. The perspective of learning and growth should be applicable for all staffs involved in the running of an organization because it is how a healthy organization is created.

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