

PERFORMANCE MEASUREMENT SETTING AMONG PUBLIC AND PRIVATE UNIVERSITIES IN MALAYSIA

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ABSTRACT

Non-profit organizations like university have no survival pressure and external competition is limited. Therefore each university should establish its core competitiveness based on its mission and vision, and also its current resources and competitive conditions. Thus, different strategic themes will produce different strategic targets and result. The aim of this paper is to highlight the strategic performance measurement setting used by the public and private universities in Malaysia. In addition, it also discusses the factors that affect strategic performance measurement system among Malaysian universities. This research will also support the idea for each university to develop its distinguishing characteristics by following its long term plan.

Keywords: Performance measurement, higher education, strategic management

1. INTRODUCTION

In essence, Malaysia has been successful in its efforts in democratizing higher education and in producing sufficient graduates to meet its manpower requirements during its phenomenal economic growth over the last three decades. As an example, the higher education capacity in Malaysia has grown from the formation of the country's first university, Universiti Malaya in 1961, to the 2007 enrolment of 942,200 students in 20 public universities, 32 privates' universities and university colleges, four branches campuses of international universities, 21 polytechnics, 37 public community colleges and 485 private colleges.

As a platform to move forward, The National Higher Education Action Plan 2007-2010 is a stepping stone towards promoting long-term objectives of human capital development contained in the National Higher Education Strategic Plan. The ultimate aim is to empower Malaysian higher education in order to meet the nation's developmental needs and to build its stature both at home and internationally. Therefore seven strategic thrusts have been outlined (Malaysia Ministry of Higher Education, 2007):

1. Widening access and enhancing equity
2. Improving the quality of teaching and learning
3. Enhancing research and innovation
4. Strengthening Institution of higher education
5. Intensifying Internalization
6. Enculturation of lifelong learning
7. Reinforcing the Higher Education Ministry's delivery system

Furthermore, demand for higher education in Malaysia will grow as its population rise an in tandem with the government emphasis on human capital development. According to the Malaysian Association of Private Colleges and Universities (MAPCO), there were some 450,000 students at private institutions of higher learning as at December 2008. Tertiary student enrolment in public and private higher learning institutions including universities, polytechnics and community colleges were increasing as presented below in 2010:

Level of Study	Enrolment Public HEI		Enrolment Private HEI	
	2009	2010	2009	2010
PHD	14669	17718	2278	3804
Masters	44880	49676	13372	14038
Bachelors	272012	274690	198760	220299

Source: Statistics of Higher Education of Malaysia 2010

2. PROBLEM STATEMENT

Even though public universities in Malaysia received a lot of support from government, there was no improvement in term of ranking. For

example, in term of ranking, University Malaya, the nation's oldest university, which was ranked among the world's top 100 university in 2004 had slipped to 230 spot in the World University Ranking 2008 by the Times Higher Education Supplement (THES). On top of that, The Ministry of Higher Education (MOHE) was established on 27 March 2004. The Malaysian Ministry of Higher Education is comprised of two departments and an agency. The departments under the Ministry of Higher Education are the Higher Education Department (HED) and the Polytechnic and Community College Management Department (PCCMD). The HED is also comprised of two management sectors, that is, Public Institution Management Sector and the Private Institution Management Sector. The agencies under the Ministry of Higher Education are Malaysian Qualification Agency, PTPTN, Tunku Abdul Rahman Foundation and Public Institutions of Higher Education.

Below are mission and objectives of Malaysia Ministry of Higher Education

MINISTRY OF HIGHER EDUCATION MISSION

To develop and put in place a higher education environment that encourages the growth of premier knowledge centers and individuals who are competent, innovated with high moral values in order to meet national and international needs.

MINISTRY OF HIGHER EDUCATION OBJECTIVES

1. To ensure that at least 3 of the country's universities are continuously listed as among the best 100 universities in the world and that one of the said universities is listed as among the world's top 50 universities.
2. Develop at least 20 centers of excellence which are internationally recognized in terms of research output, copyrights, publications, research collaborations and commercialize 10% of research outputs.
3. To ensure that at least 75% of the lecturers in the public institutes of higher education possess the Doctor of Philosophy qualification and its equivalent and 30% of the lecturers in the polytechnics and community colleges possess the Masters Degree and PhD and their equivalent.
4. To produce competent graduates to fulfill national and international manpower needs with 75% of the graduates employed in their relevant fields within six months of their graduation.
5. To encourage the internationalization of the country's higher education environment by attracting overseas students,

equivalent to 10% of the total student population at the diploma, graduate and post graduate levels.

6. To increase the cohort of individuals (17 – 23 years of age) with access to higher education to 50%, for all forms conventional and non-conventional higher education.
7. To ensure that there is continuous improvement in other sources for the funding of public universities at a ratio of 30% comprehensive / focalise university, 40% Research University and rest is government funded.
8. To make available adequate and quality higher education infrastructure facilities comparable to standard international practices.
9. To make available funding facilities for potential and qualified students to gain access to higher education.
10. To raise the strategic relationship between local institutes of higher education and institutes of higher education overseas, as well as renown local and foreign research institutions in the fields of research , development and commercialization

Unfortunately until end of 2009, there was no major improvement can be seen from the establishment of MOHE. 10 objectives as listed were not fully achieved. In addition, the increasing demand from local and foreign students, major concern from stakeholders, the establishment of Ministry of Higher Learning and the objectives to ensure that at least 3 of the country's universities are continuously listed as among the best 100 universities in the world and that one of the said universities is listed as among the world's top 50 universities, the management of Malaysian university should embark to find the best way to manage performance in their universities. Many approaches have been implemented so far but the results were absolutely deviate from the target.

It shows the current approaches are not coherent with the target. Many questions can be raised from the current performance:

1. What are the best performance measurement approaches to achieve the targets?
2. Are there any differences in term of approaches use by the management of public university and private university in Malaysia?

3. RESEARCH OBJECTIVES

The aim of this paper is to highlights the strategic performance measurement setting used by the public and private university in

Malaysia. In addition, it also discusses the factors affect strategic performance measurement system among Malaysian universities.

4. PERFORMANCE MEASUREMENT

The last 20 years has witnessed a revolution in performance measurement (Neely & Bourne, 2000). This reformation has been driven by changes in business environment, which has led to the recognition that conventional measures do not present a complete of organizational performance (Anderson & McAdam, 2004).

In public sector, there is also a great deal of literature on performance measurement and accountability in government. Governments around the world have invested large amounts to develop performance measurement systems, the results of which are mediocre at best. There is also a growing recognition that's financial performance measures alone measure only limited aspects of an organization's performance (Kloot, 1999). Therefore the use of non-financial measures in addition to financial measures of performance has been increasingly called for in both the for-profit and not-for-profit sectors of the economy (Kloot & Martin, 2000). The central idea behind performance measurement is : a public organization formulate envisaged performance and indicates how this performance can be measured by defining performance indicator (Bruijn, 2002).

The performance measurement system of an organization is the mechanism by which to manage and control the organization. For organizations that use PMS as the basis for their operation and development, the health of the organizations depends on the effectiveness of the PMS. Maintaining the effectiveness of the organizations and the measurement systems requires a systematic review process (Najmi, Rigas, & Fan, 2005).

Within the literature on performance measurement one can discern three definitions (Greiling, 2006). First, performance measurement in a narrow sense refers to the process of measurement. Performance measurement is limited to applying various techniques for generating performance data. Second, performance measurement is used in the sense that it refers to performance reporting. Third, performance measurement is advocated as a steering instrument within the public sector. In his research, Weber's classical theory of bureaucracy, Niskanen's theory of bureaucracy, Leibenstein's theory of the X-inefficiency, the principal agent theory and the institutional theory were use to answer the question of 'is performance measurement a driver for making public service delivery more efficient?

Numerous authors discuss the problems with the traditional performance measurement which focus on financial aspect (Kennerly & Neely, 2002). As cited in Neely (1999) , traditional financial measures are criticized because they:

- Encourage short-termism
- Lack strategies focus and fail to provide data on quality, responsiveness and flexibility
- Encourage local optimism
- Encourage managers to minimize the variances from standard rather than seek to improve continually
- Fail to provide on what customers want and how competitors are performing

Traditional performance measurement systems have shortcomings as below Schalkwyk (1998) :

- The collection and manipulation of financial data take so long that it is useless for rapid decision making when it finally reaches the user
- The use of financial data is to set goals and control actions typically lead to manipulation of output levels to achieve cost targets
- Top-down financial performance information encourages management by remote control
- Financial data does not identify unnecessary complexity
- Many traditional financial performance system completely ignore the client
- Financial goal, such as to achieve 25% return of capital, provide no inspiration to employees
- Opportunities for improvement are typically not utilized due to the one-time reduction in financial measures

Non-profit organizations like public university have no survival pressure and external competition is limited. Therefore each university should establish its core competitiveness that based on its mission and vision and also its current resources and competitive conditions. Thus different strategic themes will produce different strategic targets and the resulting. In his study on performance measurement indicators among Taiwan university, 18 dimensions of performance indicators were used (Chen, Wang, & Yang, 2009). There are:

School reputation	Development target and characteristics
Academy exchange	Administration resource
Teaching resources	Curriculum planning
Graduate's career planning	Research results
Social responsibility	Teaching quality

Student retention rate	Faculty resources
Financial resources	Financial donations
Student quality	Tutorship result
Continuous education services	Students structure

Neely (1999) also stated seven main reasons why so many people so interested in performance measurement:

1. The changing nature of work
2. Increasing competition
3. Specific improvement initiatives
4. National and international awards
5. Changing organizational awards
6. Changing external demands
7. The power of information technology

5. PERFORMANCE MEASUREMENT IN HIGHER EDUCATION

Performance Measure System (PMS) is an important success factor of a company as well as higher education institution. It plays an important role in developing corporate strategy and performance evaluation (Ukko, Tenhunen, & Rntanen, 2007) in order for the organization to be more competitive in the global economy and this reflect higher education industry. As international competition becomes increasingly fierce, numerous countries have enthusiastically invested in higher education in an effort to enhance their competitiveness. To adapt to the great competition from all over the world, there is an important and immediate required improvement to the quality of higher education to meet international academic trend and raise overall academic standards and education quality. Therefore, universities are faced by the predicament that is to promote operating performance. To promote university education quality, measurement performance indicators are needed and these performance measurement indicators have promoted positive competition among universities and have developed a channel facilitating society to supervise the higher educations system.

In doing performance measurement in practice, it is widely accepted that performance measures influence behavior. UK's Research Assessment Exercise provides an excellent example of how performance measures can modify behaviors on a mass scale (Neely, 1999). In 1992, the first Research Assessment Exercise was conducted and on the key used was 'research excellence' which in turn was measured in terms of the number of publications per research active member of staff. This has led different institutions adopted different strategies to boost their scores. For instance, some recruited prolific publishers and some register a small proportion of their faculty as

research active. As a result the number of publication appears to have grown exponentially and it encouraged the academic community to disseminate their work.

For the 1996 Research Assessment Exercise the criteria were changed and the emphasis was put on quality, rather than quantity. Hence everyone was asked to submit details of their best three publications. Therefore performance measurement not only provides information whether the strategy is being implemented, but also encourages behaviors consistent with the strategy. According to Tang & Zairi (1998), the core functions of a university are basically teaching, research and scholarship. These core functions must be stated in university's daily operational and performance measurement indicator should have the following functions:

- Control and measure education quality;
- Provide information to education policy decision makers;
- Provide references for education resources management and allocation; and
- Provide each department with indicators of performance management

Therefore, there are two primary objectives of measurement: to assist in universities in improving education quality; and to help universities meet customer demands and achieve their responsibilities. Johnes (1996) believed that university's performance can be measured through four categories of output:

1. output from teaching activities
2. output from research activities
3. output from consulting services
4. output of cultural and social activities

6. QUESTIONNAIRES

The data gathered through a questionnaire survey using standardized instruments. The sampling frame is public and private higher learning institutions operating in Malaysia, based on data provided by Malaysia Ministry of Higher Learning. 4 universities were chosen representing 2 public universities and 2 private universities. Data is collected through a structured questionnaire sent to the top management team. Questionnaire consists of 3 sections: a) Demography, b) Steps of Performance Measurement System and c) factors affected performance measurement system The respondents are asked to rate the statement on a five point Likert-scale from 1= never to 5 = all of the time.

7. FINDINGS

70 sets of questionnaires distributed to the respondents and only 57 sets were returned to the researcher. Only 53 sets used for the purpose of analysis due to the incompleteness of 4 sets of questionnaires. 25 of respondents are working in public university while 28 are working with private university. Below are the details:

Table 1.
Demography of Respondent

Job Title	No
Associate Professor	2
Senior Lecturer	23
Lecturer	26
Tutor	2
Total	53
No of Years Involve in Management Position	
Less than 2 years	11
2 – 4 years	26
4 to 8 years	9
More than 8 years	7
Total	53

For section B and C, normality test through skewness and kurtosis have been performed. The result shows that the data are normally tabulated. Cronbach's Alpha for reliability also computed and for section B and C are above 0.8. Table 2 shows the mean of frequencies on the steps of performance measurement system in universities while table 3 shows the factors affected performance measurement system in universities.

8. DISCUSSION

Educational institutions are nonprofit organizations, but nonprofit organizations can learn from businesses in the area of effective management. On the other hand, businesses can also learn from non-profit organizations in the area managing with mission. Traditionally, non-profit organizations have not been faced with the pressures of survival, and the notion of external competition has been nebulous. It is therefore not easy to establish certain performance measurement indicators. However, as society has become more pluralistic and as competition has become increasingly intense, non-profit organizations have had to focus on a mission, strategy and performance management. Therefore, the need to develop a program of improvement, strategy setting and evaluation in managing higher learning institution due to several reasons:

- An increase in the number of faculty members in the institution
- A change in leadership

- The need to focus on assessment and continuous improvement initiatives required by accrediting agencies

Table 2.
Steps of performance measurement system in universities

Steps of performance measurement system in universities	Mean	
	Public University	Private University
Clearly define the university's mission statement.	3.7586	3.6071
Identify the university's strategic objectives using the mission statement as a guide.	3.6207	3.4286
Develop an understanding of each functional area's role in achieving the various strategic objectives.	3.6552	3.4286
For each functional area, develop global performance measures capable of defining the university's overall competitive position to top-management.	3.1724	3.3571
Communicate strategic objectives and performance goals to lower level in the university. Establish more specific performance criteria at each level.	3.2414	3.2500
Assure consistency with strategic objectives among the performance criteria used at each level.	3.3793	3.2500
Assure the compatibility of performance measures used in all functional areas.	3.5517	3.1786
Use the performance measurement system.	3.6552	3.1786
Periodically re-evaluate the appropriateness of the established performance measurement system in view of the current competitive environment.	3.3793	3.0714

Table 3.
Factors affected performance measurement system in universities

	Public University		Private University	
	Mean	Rank	Mean	Rank
Use of performance measurement system	3.7586	1	3.3929	4
Type of organizational structure	3.6207	2	3.4286	2
Management commitment	3.5862	3	3.4643	1
Systematic use of quality frameworks	3.5517	4	3.2143	9
Purpose and benefits of using performance measurement system	3.5517	5	3.3571	5
Structured approach to performance measurement design	3.5172	6	3.3214	7
Focus on appraisal and rewards	3.4483	7	3.1786	10
Team maturity	3.4138	8	3.3214	6
Strategy deployment	3.3103	9	3.2857	8
Business process view	3.2069	10	3.4286	3

According to the table 2, management team in public universities as well as private universities has applied various steps on

of performance measurement system as applied by the business entity. Emphasized has been given to define the mission statement of the university as it helps the university to formula the strategic goal. By the way, the management team should communicate the strategic objectives to the lower level staff. This can be done by introducing specific performance criteria for each department as it will helps them to understanding the future plan of the university.

To make the management process becomes dynamic movement, management team needs to address the factor which has tendency to affect the performance measurement system process. Management of public and private universities has listed the use of performance measurement system, type of organizational structure and management commitment are part of issues need to be address in managing the university performance. The finding also highlight the business process view is ranked no 10 by the public universities while private universities placed it as no 3. This is because the nature of private universities which emphasize on profit making for the survival of the universities. As the researcher wants to look at the differences of performance measurement system between public and private universities, 2 hypotheses have been developed. T-test was used to test the hypotheses. Result shows as below:

No	Hypotheses	Note
1	There is no significant difference on steps of performance measurement system use by public university and private university	Fail to Reject $t(55) = .396, p > 0.05$
2	There is no significant difference on factors affected performance measurement system between public university and private university	Fail to Reject $t(55) = .363, p > 0.05$

Numerous BSC researches have used interviews, surveys, and case study organization's strategies, determine the Key Performance Indexes (KPIs) for the four perspectives (financial, customer, internal business process, and learning and growth, and have suggested a reward system to connect with the KPIs . But there are few research discussions about how to apply the BSC to educational institution (Karanthanos & Karantahnos, 2005), and moreover how to identify the institutions' core competencies in order to build up its competitive advantage. A finding of this research is very important to build a BSC model to help determine the relationship between performance efficiency and the educational performance indices. This research will also support the idea for each university to develop its distinguishing characteristics by following its long term plan, but also to monitor the progress of achieving the National Higher Education Strategic Plan in four distinct phases:

- Phase 1 : Laying the Foundation (2007 – 2010)
- Phase 2 : Strengthening and Enhancement (2011 -2015)

- Phase 3 : Excellence (2016 – 2020)
- Phase 4 : Glory and Sustainability (Beyond 2020)

Although there are many higher learning institutions in Malaysia, the different visions and missions should not be barriers to apply the BSC and this “educational business model” should also be helpful for them to enhance their educational quality because the basic educational purposes are the same. The perspectives of the BSC can be developed from five perspectives:

1. Growth and development
2. Scholarship and research
3. Teaching and learning
4. Service and outreach
5. Financial resources

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