

Applying Baldrige Performance Excellence Criterion On Students' Satisfaction At Private University In Indonesia

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ABSTRACT

This paper reports on a study about students' satisfaction at the Faculty of Business & Management of a private university in Indonesia. It uses the third criterion, namely **Customers**, of Malcolm Baldrige's *Education Criteria for Performance Excellence*. Data was acquired by way of a questionnaire administered to 330 randomly selected undergraduate students in February 2015. The maximum point score for this criterion is 85 (out of 1000 for all 7 criteria) and the score obtained in this study was 59 (i.e. 69%). Analysis provides results showing students' satisfaction at a 'poor' or 'early results' level particularly in respect of their career placements and on the public image of the university. These results indicate the need for quality improvement at both faculty and university levels. Secondly, they point to the need to improve and expand the image of the university so that potential employers are aware of the faculty and university.

Keywords: Satisfaction, Quality Management System , Malcolm Baldrige National Quality Award .

Introduction

A nation's competitiveness is achieved when its citizens possess the strength of character and culture both of which could arguably be said to arise from an excellent education system. Although Indonesia faces a formidable challenge in ensuring its minimum compulsory education due to the large number of school-age citizens, retention rates appear to continue to increase. The Indonesian Ministry of National Education envisaged a higher education (HE) gross enrolment rate of 35% in 2015 rising from 28% in 2012 (Kemdikbud, 2014). As the Indonesian higher education system has been dominated by private HE institutions, increases in higher education enrolment pose no problems to the government. The National Board of Accreditation (BAN-PT) ensures a basic quality level of its private HE institutions.

However, it appears that the increase in the number of jobs for graduates is not commensurate with the increase in the number of graduates. This situation is exacerbated by the predicted gross enrolment rates which continue to increase. This means that many qualified graduates are not getting jobs or not getting jobs that they had been educated and trained for. It is not difficult to see that this situation creates social problems in the community.

To address such outcomes, improvements are needed in the quality of higher education. In turn this means improving quality in all aspects associated with higher education, ranging from program entry criteria to employing quality of both academic and non-academic staff and appropriate teaching and learning methods as well as provision of appropriate facilities.

Having investigated the Malcolm Baldrige National Quality Award (MBNQA)'s *Education Criteria for Performance Excellence* we decided to apply its Criterion/Category 3 "Customers" to establish their satisfaction primarily of the faculty's and university's management systems.

Literature Review

Higher Education Mngement System

HE in Indonesia both public and private operate under the general doctrine of *The Trilogy of Higher Education* ('Tri Dharma Perguruan Tinggi') required by the government. (Kemdikbud, 2014) namely, Teaching and Learning, Research and Community Service.

Haryanto (2009) elegantly summarized this as shown in Fig. 1. As shown the *Trilogy* forms the Core Process which interacts with the rest or the functions within the framework. The integrated approach of the Baldrige Excellence Performance criteria is clearly demonstrated in Fig 1 in order to achieve overall institutional performance excellence.

Process	Content	Resources
Core process : <ul style="list-style-type: none"> ● Teaching learning ● Research ● Community Service 	Curriculum & Management <ul style="list-style-type: none"> ● Content ● Methodology ● Knowledge object ● Research output ● Academic Forum 	Human Resource <ul style="list-style-type: none"> ● Academic ● Non-academic
Other supporting Processes		Financial
		Research
Information systems	Knowledge management	IT Infra- structure
Organisation & Management System		

Figure 1. HE Organization & Management System (Haryanto, 2009)

MBNQA Assessment

The Malcolm Baldrige National Quality Award (MBNQA) is a coveted USA national quality award normally presented by the US President to a winning organization that had gone through a rigorous evaluation of all its processes. It is an integrated assessment of its performance excellence (NIST, 2011) where performance excellence is clearly defined as:

“Performance excellence refers to an **integrated approach** to organizational performance management that **results** in

- Delivery of ever-improving value to customers and stakeholders, contributing to organizational sustainability
- Improvement of overall organizational effectiveness and capabilities
- Organizational and personal learning”

Unlike other quality standards and measures, the MBNQA criteria cover the totality of an organization’s functioning thus there is avoiding isolated optimization that may in fact deleterious to the whole organization (NIST, 2015).

No doubt an organization that wishes to improve its performance may need to look at each criterion first in order to apply the criteria for the appropriate section of the organization. Or it may prioritize certain criterion in order to implement an improved process that will bring it towards excellence.

For education, there are seven criteria to be met. These are:

1. Leadership
2. Strategy
3. Customers
4. Measurement, Analysis and Knowledge Management
5. Workforce
6. Operations
7. Results

While recognizing the integrated nature of MBNQA this paper will demonstrate only one of the categories above, namely “3. Customers”. It is hoped that this exercise will provide some experience of implementing and meeting MBNQA criteria in a culture and ambience different from what it was originally created for.

There are two sub-categories of “3. Customers”. These are:

- 3.1 Voice of the customer
- 3.2 Customer engagement

In the former the organization desiring improvement is expected to be able to *listen* to its customers and stakeholders, in our case, students, staff and potential employers.

The latter alludes to a system by which the organization works with its students, staff and potential employers in a systematic and synergizing ways for mutual benefits.

Methodology

A sample of 18% (i.e. 330 out of a total population of 1841) undergraduate students in the Faculty of Business and Management were randomly selected using non-probabilistic sampling from Slovin formula (Sevilla, Consuelo G. *et. al*, 2007) as respondents to a questionnaire developed in accordance with the Baldrige’s Category 3 criterion.

The sample size ‘n’ was determined using Slovin Formula:

$$(n) = N/ (Nd^2 +1) = 328$$

Where 'N' is the population (in this case 1841) and 'd' is the margin of error (in this case 5% or 0.05 thus giving a 95% confidence level). The accepted sample size 'n' is then

$$(n) = 1841 / [1 + \{1841 * (0.05^2)\}] = 328.6 \approx 330 \text{ (rounded up).}$$

A 5-scale Likert model questionnaire was used with a range from 1 (Strongly Disagree) to 5 (Strongly Agree). The average score for each of the sub-criterion 3.1 and 3.2 is then multiplied by the Baldrige score as published, and the final score for the results are calculated so that the classification of the result per Baldrige is determined.

Findings

Outcomes of the Baldrige Category 3 'Customers'

Cronbach's Alpha was calculated to ensure the veracity and validity of the Survey Questionnaire so that a more robust data are acquired. These are shown in table 1.

Table 1. Cronbach-alpha reliability test results

Sub-criteria	Cronbach Alpha	Value Limit	Conclusion
Students' Competency	0.917	0.7	Reliable
Stakeholder	0.857	0.7	Reliable
University/Faculty's reputation and standing	0.800	0.7	Reliable
Students' skills	0.737	0.7	Reliable
University/Faculty's relations with external	0.905	0.7	Reliable
Students' extracurricular activities	0.865	0.7	Reliable

Source: research data

Clearly Table 1 shows that all of the sub-criteria are proven to be reliable. Consequently the results obtained using this Questionnaire is robust.

The following Table shows the average scores of responses grouped according to the Baldrige criteria guidelines. The maximum total score for this Category is 85 with sub-category 3.1 a maximum of 40 and sub-category 3.2 of 45. The total calculated from these results when compared to the Baldrige Criteria maximum total will indicate the standard of excellence the organization currently has. As a result it could then plan appropriate actions to improve its score by improving its process quality.

Table 2. Average scores of responses grouped according to the Baldrige criteria guidelines.

Criterion/Category 3 of the Malcolm Baldrige <i>Education Criteria for Performance Excellence.</i>	Average
3.1 Assessment of the university/faculty in responding to the needs of the students, stakeholders and the market in the short and long terms (3.41
Students' Competency	3.54
1 Self-confidence with the ability obtained to date	3.39
2 Easily adaptable to campus environment	3.53
3 Able to learn in teams / groups	3.55

Criterion/Category 3 of the Malcolm Baldrige <i>Education Criteria for Performance Excellence</i> .		Average
4	Acquires organizational experience	3.68
5	Able to communicate with all on campus	3.59
6	Able to think logically and factually	3.58
7	Able to complete assignments on time	3.55
8	Able to lead within campus	3.54
9	Proficient in the English and other foreign languages	3.46
10	Proficient in seeking and using information using computers	3.55
Students' skills		3.39
11	Aspire to work in the Business areas	3.63
12	Will do anything as long as working following graduation	3.14
Stakeholder		3.31
13	Continually updating information regarding vacancies for graduates	3.29
14	Provides help for unemployed graduates	3.32
15	Has a <i>career center</i> to facilitate graduate jobseekers	3.34
16	Has a <i>career center</i> to facilitate personal trait tests for graduates	3.24
17	Maintains communication with alumni particularly on their career	3.37
3.2 Engagement between students and stakeholders (<i>total point 45</i>)		3.55
University/Faculty's reputation and standing		3.62
18	Proud being Widyatama's student	3.48
19	Community awareness of Widyatama University	3.60
20	Community is positive about Widyatama University	3.65
21	Feeling offended when others talk negatively about Widyatama	3.74
University/Faculty's relations with external bodies		3.39
22	You know of and are involved in visits by external bodies	3.17
23	You participate in university's activities outside campus	3.30
24	The university provides facilities to lodge suggestions and complaints	3.48
25	Excellent registration service	3.27
26	Availability of a mentor who helps in academic matters	3.53
27	Availability of a counselling bureau to help students with problems	3.29
28	Ease of dealing with academic matters e.g. payments, approvals, exam results, final year projects	3.61
29	Ease of access to own information and other academic matters	3.48
Students' extracurricular activities		3.66
30	Student Center accommodates various students' activities	3.53
31	The university strongly supports students' activities outside	3.43
32	Recognition given for excellence within and outside campus	3.71
33	Students are free to choose extracurricular activities according to their	3.82
34	Extracurricular activities provide students with experience in	3.81

(Source : Research data)

Calculations:

The average score for sub-category 3.1 = 3.41 and the total maximum score according to Baldrige Criteria is 40 points. Thus the points accrued under this sub-category is $(3.41/5.0) \times 40 = 27$.

The average score for sub-category 3.2 = 3.55 and the total maximum score according to Baldrige Criteria is 45. Thus the points accrued under this sub-category is $(3.55/5.0) \times 45 = 32$. **MBQA Criteria** 3.1 = 1.68 & criteria 3.2 = 1.71 Hence the total points scored for this criteria/category = $(27 + 32) = 59$ out of a possible maximum of 85.

This therefore is a mark of 69% for this Category or Criteria of the Baldrige Quality Award for Education.

Discussion

The score of 69% may then be compared to the excellence levels in the MBNQA for Education. For a range of scores MBNQA provides a description so that the organization may develop a plan to plug its shortfalls. An iteration of this process to improve the scores for all the seven criteria would continually improve the quality of the processes of the organization.

The commentary on the score achieved in this investigation is shown in Figure 5. It is important that subtle inflexions and adjectives are added as one move up the rung of scores. For example, 'integrated' and 'well integrated' are two different things and we need to watch this.

From the score MBQA, factors that need to be improved are Students' skills, Engagement between students and stakeholders, Students 'Competency, University / Faculty's relations with external bodies, Students' Extracurricular activities and University / Faculty's reputation and standing.

As for this investigation, our interpretation of the point score is that some semblance of system exists but there is still a lot of improvements required. Remembering that this is only conducted on one criterion of the seven that made up the MBNQA criteria, the result here may need to be treated with caution.

In addition the approach taken in this investigation is non-probabilistic and thus non-statistical when a more statistical one would provide a more robust support for a conclusion.

PROCESS SCORING GUIDELINES

SCORE	PROCESS (for use with categories 1–6)
0% or 5%	<ul style="list-style-type: none"> ■ No SYSTEMATIC APPROACH to item requirements is evident; information is ANECDOTAL. (A) ■ Little or no DEPLOYMENT of any SYSTEMATIC APPROACH is evident. (D) ■ An improvement orientation is not evident; improvement is achieved through reacting to problems. (L) ■ No organizational ALIGNMENT is evident; individual areas or work units operate independently. (I)
10%, 15%, 20%, or 25%	<ul style="list-style-type: none"> ■ The beginning of a SYSTEMATIC APPROACH to the BASIC REQUIREMENTS of the item is evident. (A) ■ The APPROACH is in the early stages of DEPLOYMENT in most areas or work units, inhibiting progress in achieving the BASIC REQUIREMENTS of the item. (D) ■ Early stages of a transition from reacting to problems to a general improvement orientation are evident. (L) ■ The APPROACH is ALIGNED with other areas or work units largely through joint problem solving. (I)
30%, 35%, 40%, or 45%	<ul style="list-style-type: none"> ■ An EFFECTIVE, SYSTEMATIC APPROACH, responsive to the BASIC REQUIREMENTS of the item, is evident. (A) ■ The APPROACH is DEPLOYED, although some areas or work units are in early stages of DEPLOYMENT. (D) ■ The beginning of a SYSTEMATIC APPROACH to evaluation and improvement of KEY PROCESSES is evident. (L) ■ The APPROACH is in the early stages of ALIGNMENT with your basic organizational needs identified in response to the Organizational Profile and other process items. (I)
50%, 55%, 60%, or 65%	<ul style="list-style-type: none"> ■ An EFFECTIVE, SYSTEMATIC APPROACH, responsive to the OVERALL REQUIREMENTS of the item, is evident. (A) ■ The APPROACH is well DEPLOYED, although DEPLOYMENT may vary in some areas or work units. (D) ■ A fact-based, SYSTEMATIC evaluation and improvement PROCESS and some organizational LEARNING, including INNOVATION, are in place for improving the efficiency and EFFECTIVENESS of KEY PROCESSES. (L) ■ The APPROACH is ALIGNED with your overall organizational needs identified in response to the Organizational Profile and other process items. (I)
70%, 75%, 80%, or 85%	<ul style="list-style-type: none"> ■ An EFFECTIVE, SYSTEMATIC APPROACH, responsive to the MULTIPLE REQUIREMENTS of the item, is evident. (A) ■ The APPROACH is well DEPLOYED, with no significant gaps. (D) ■ Fact-based, SYSTEMATIC evaluation and improvement and organizational LEARNING, including INNOVATION, are KEY management tools; there is clear evidence of refinement as a result of organizational-level ANALYSIS and sharing. (L) ■ The APPROACH is INTEGRATED with your current and future organizational needs identified in response to the Organizational Profile and other process items. (I)
90%, 95%, or 100%	<ul style="list-style-type: none"> ■ An EFFECTIVE, SYSTEMATIC APPROACH, fully responsive to the MULTIPLE REQUIREMENTS of the item, is evident. (A) ■ The APPROACH is fully DEPLOYED without significant weaknesses or gaps in any areas or work units. (D) ■ Fact-based, SYSTEMATIC evaluation and improvement and organizational LEARNING through INNOVATION are KEY organization-wide tools; refinement and INNOVATION, backed by ANALYSIS and sharing, are evident throughout the organization. (L) ■ The APPROACH is well INTEGRATED with your current and future organizational needs identified in response to the Organizational Profile and other process items. (I)

Figure 2 – The MBNQA Scoring Guideline (2010-2012)

Conclusion

This investigation and report had demonstrated the application of a world recognized quality criterion at an Indonesian university/faculty. The process of MBNQA can be adopted using a self-developed survey questionnaire whose average response values are calculated and compared with the total maximum scores indicates by the criterion.

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