Benchmarking Frameworks for Managing Quality Processes on Learning Management in Thailand

Chompu NUANGJAMNONG
Faculty of Business Administration, Department of Business Management and Informatics
Saint John's University, Bangkok, Thailand
cnuang@stjohn.ac.th

Abstract

Universities now compete globally for student; hence quality is or paramount importance. Managing quality processes is critically important for higher education institutions generally, but especially for institutions involved in learning management (LM). In Thailand, IT managers in each faculty responsible for LM have identified two frameworks that potentially offer ways of conceiving of the application of quality processes which are the quality framework and the benchmarking framework. However, managers who have been considering applying one or other framework within their institutional contexts have had to face the issue of how they should choose between, or combine the use, of these frameworks. Part of their issues lies in distinguishing among the related functions of quality improvement, quality assurance, and benchmarking frameworks. This paper compares the frameworks in terms of scopes, official application, structures, and method of application, and considers what inferences the similarities and differences between the frameworks have for their use.

Key Words: *Benchmarking Framework, Learning Management, Quality Assurance, Quality Improvement*

1. Introduction

Around the world, national higher education systems are actively decentralizing. Trends driving this development include the globally significant lessons learnt from **a European Higher Education Area (EHEA)** (the Bologna Process) (European university Association (EUA), 2014), changes to the higher education sector, global tendencies and the development of the ASEAN Community by 2015. There is a coinciding regionalization of quality assurance, which is being seen. The development of regional quality assurance networks is a result of this. In this paper the Southeast Asia quality assurance networks are studied, firstly with a review of the quality assurance response from the ASEAN University Network (AUN) beginning in 1998, and with the recent establishment of the ASEAN Quality Assurance Network (AQAN) in 2008. Quality assurance networks are also discussed, along with common activities of developing quality assurance principles and guidelines (ASEAN University Network (AUN), 2008). Within the Australian higher education sector the Tertiary Education Quality Standards Agency (TEQSA) was introduced to regulate and assure quality in the higher education sector (The Tertiary Education Quality Standards Agency (TEQSA), 2011).

Quality has become a matter of major importance for higher education institutions generally, but particularly so for institutions involved in learning management (LM) (National Electronics and Computer Technology Center (NECTEC), 2011). The origin of quality assurance in higher education is a multidimensional concept, which should embrace all its functions, and activities; teaching and academic programmes, research and scholarship, staffing, students, buildings, facilities, equipment, services to the community, and academic environment (Ginkel H.J.A. & Dias M.A., 2007). The definition provided in a UNESCO-CEPES report reflects the

increasing complexity of the higher education environments: Quality in higher education is a multi-dimensional, multi-level, and dynamic concept that relates to the contextual settings of an educational model, to the institutional mission and objectives, as well as to the specific standards within a given system, institution, programmes, or discipline. (Vlasceanu, Grünberg, & Pârlea, 2007; United Nations Educational, Scientific and Cultural Organization, 2014). The Australian TEQSA defines standards for: institute registration; course accreditation and qualifications. Significantly the standards define all aspects of institutional quality assurance from financial viability to academic quality and integrity.

In practical terms quality is addressed more usefully as a process than an idea. Quality assurance is regarded as a process where key elements of higher education are measured. It embraces the concepts of performance, standards, norms, accreditation, benchmarks, outcomes, and accountability overlap to form the foundation of the quality culture emerging in higher education everywhere (Adelman, 2009). The differences in exactly 'what' is measured and 'how' reflect the way different nations and cultures understand quality. Within the broader higher education sector, the interest in quality originated from previously established movements overseas as it did from the discussion taking place within educational institutions in Thailand.

The issue of quality impinges on the work of universities in a number of ways. For example, in order to protect their critical market in overseas education, universities have to ensure that the standard of the educational products match the standard of what they are offering onshore. Universities are also keen to establish how they compare with one other, or at least with other similar universities, even if they are not always keen to make such comparisons public.

The growing concern with quality in higher education has led institutions to look for ways of managing quality processes. In recent times, the focus of attention has turned to quality processes in the context of the online delivery of programs. This in turn has led to various attempts to develop frameworks for conceptualizing and structuring these processes. The "benchmarking framework" is the formal and structured process of searching for those practices which lead to excellent performance, the observation and exchange of information about them, their adaptation to meet the needs of one's own organization, and the implementation of the amended practice (Michael, Sower, & Motwani, 1997). Meanwhile, "Quality improvement framework" is a formal approach to the analysis of performance and systematic efforts to improve it. There are numerous generic models used such as **TQM: Total Quality Management, Six Sigma (DMAIC) and CQI: Continuous Quality Improvement**. These models are all means to get at the same thing: Improvement. They are forms of ongoing effort to make performance better (Freed & Klugman, 1997). In Thailand, the quality improvement framework and the benchmarking framework (The Office of Higher Education Commission (OHEC), 2010) support alternative ways of associate quality processes in relation to teaching and learning in higher education. A number of universities have been looking into how each of these frameworks may be used to manage quality processes within distance, open, and flexible learning, including online learning.

This paper therefore attempts to compare the two frameworks from the point of view of IT managers in learning management who want to make a choice between the two. This comparison will be focused in terms of four factors: the scope of the frameworks; the type(s) of institution to which they are meant to be applied; the structures of the frameworks; and the ways in which the frameworks are intended to be used. Based on this comparison, this paper considers the implications of the similarities and differences between the frameworks for

their use in managing quality processes in learning management.

2. Distinguishing Among Quality Processes

In the literature related to quality in higher education, three terms commonly appear: benchmarking, quality assurance, and quality improvement. These terms refer to distinct closely related functions. Judgments about quality are comparative and what distinguish among these three functions are the types of comparisons that are made.

Benchmarking

"Benchmarking" (Seybert, 2011) is a term that is now widely used in higher education. Benchmarking involves comparing organizational or industry practices, performance, and process to improve the focal organization or business. It is a process of comparison for purposes of assessment and innovation while assessment – comparing one's own organizational activities with those of others provides a context in which to gauge one's own outcomes and activities, and innovation – comparing to provide new insights to inspire and motivate useful and profound change. Above all benchmarking is a process of comparison.

Benchmarking in higher education procedures can be condensed into four steps: planning the study, conducting the research, analyzing the data, and adapting the findings to the home institution that is conducting the study. The first step involves selecting and defining the administrative or teaching processes to be studied, identifying how the process will be measured, and deciding which other institutions to measure against. Second, benchmarking process data is collected using primary and/or secondary research about the colleges, universities, or other organizations being studied. The third step consists of analyzing the data gathered to calculate the research findings and to develop recommendations (Achim, Căbulea, Popa, & Mihalache, 2001). The differences or gaps in performance between the institutions being benchmarked assist the key decision makers. Within the higher education sector in Thailand, the term 'benchmarking' is now sometimes used to refer to processes that are more concerned with the other quality functions.

In the area of learning management, various sets of guidelines have been produced to support good practice. Learning management means 'the design and implementation of pedagogical strategies that achieve learning outcomes. The reinforcement of the learning management premise is a new set of knowledge and skills, collectively referred to as a futures orientation and which attempt to prepare the mindsets and skill sets of teaching graduates for conditions of social change that pervade local and global societies. Meanwhile a learning management system (LMS) is a software application for the administration, documentation, tracking, reporting and delivery of e-learning education courses or training programs. LMSs range from systems for managing training and educational records to software for distributing online or blended/hybrid universities courses above the Internet with features for online collaboration. Universities use LMSs to deliver online courses and augment on-campus courses. Learning management indicators based on a synthesis of e-learning indicators has been defined by seven indicators (Montesinos, Lopez, & Ripoll, 2007; "The Design of Learning Management Processes: Quality Science Learning Substance", 2013; Department of Education & Northern Territory Government, 2009) as follows: **1) Institute and University:** an institute or organization having e-learning operation with clear e-learning management in terms of: operational policy and strategy; clear e-learning management; continual e-learning strategy management and development; good organization culture supporting its task operation; and, importantly, continual quality improvement and development. **2) Curricular Program and Instructional Design:** they must always

be improved, focusing on up-to-date learning content and consistency with learning objectives. Moreover, teachers and learners should take part in curricular program improvement and development which must meet needs of learners. It must have clear curricular structures, goals of the curricular program, and course outlines covering all learning content which is consistent with outcomes of educational facilitation. Apart from curricular program, the indicators are also concern with teaching and learning design. Therefore, to design a student-centered teaching and learning program based on individual differences and co-task working, concepts and theories related to learning of a learner and flexibility must be taken into consideration. **3) Resources, Technology, and Information Technology:** is concerned with learning resources, basic technological structures, and provision of information technology services. Thus, an e-learning institute needs to have enough modern basic structures which cover services. In addition, it must have a resources center supporting effective teaching and learning facilitation. Learners can access services rapidly, conveniently, and with flexibility. This includes data reservation and good security. **4) Teaching and Learning Process:** this stage occurs when a learner is learning through e-learning. It should have diverse learning sources in order that a learner has an alternative of learning sources. Teacher and learner should always have interaction to each other with rapid responses. The teaching and learning process should place the importance on individual differences in learning potential. Furthermore, it needs to always have research on e-learning teaching and learning. **5) Learner: t**his indicator has the following details: Training a learner on various aspects and guidance before learning; support a learner on information technology using for effective communication and learning. Additionally, giving advice, academic and professional assistance, provision of convenience, motivation and learning concentration of learner are important. All of these can help learner be successful in learning. **6) Faculty (academic staffs) and Supporting Personnel:** this indicator refers to training and promoting effective learning through e-learning for an increase in knowledge about new technology and effective operation. Currently, the standard on e-learning practice of faculties and supporting personnel places the importance on the problem of academic knowledge and the legal implications of copyright. **7) Measurement and Evaluation:** this indicator should have diverse learning achievement tests and learning evaluations in accordance with: 1) the learning standard; 2) curriculum evaluation in accordance with the standard of curricular program and operation of the curricular program; 3) evaluation of faculties and supporting personnel; 4) evaluation of communication and provision of technological services; and 5) evaluation and revision for the system improvement.

These seven indicators of learning management will be used to compare with benchmarking frameworks.

Quality Assurance

Quality Assurance is a collective process by which a University as an academic institution ensures that the quality of educational process is maintained to the standards it has set itself. Through its quality assurance arrangements the University is able to satisfy itself, its students and interested external persona or bodies (Wilger, 1997) that:

- its courses meet the appropriate academic and professional standards,
- the objectives of its courses are appropriate,
- the means chosen and the resources available for delivering those objectives are appropriate and adequate, and
- it is striving continually to improve the quality of its courses.

In Thailand, for example, the quality of higher education has traditionally been supervised by central government agencies, especially the Ministry of University Affairs

(MUA) which is responsible for broad policies relating to higher education, university regulations, setting curriculum standards, overseeing university personnel and administration, for approving accreditation and curriculum development, and for acting as a link between universities and government (Harman, 1996; Groves, 2012).

Through the Joint Higher Education Entrance Examination which it administers the Ministry exercises tight control over student selection and admissions, except for the two open universities. For non-university institutions, even tighter control is exercised by other government departments, and especially the Ministry of Education (MOE). Curricula and standards in both Thai universities and non-university institutions come under strict government control. University curricula and programmes are designed and devised by individual departments, but must be approved by various university committees and boards and then by the MUA. College curricula are developed by ad hoc committees consisting of representatives from the relevant colleges, and approved by the MOE. When universities and colleges develop a new study programmes, they require the approval of the curriculum, and then apply for permission to operate the programmes from the MUA and the MOE (Harman, 1996).

Quality assurance makes no assumptions about the quality of competing products or services. In practice, however, quality assurance standards would be expected to reflect norms for the relevant industry and organization (Nuangjamnong, 2013). The process of quality assurance therefore compares the quality of a product or service with a minimum standard set either by the producer or provider or by some external government or industry standards authority. The aim in quality assurance is to ensure that a product or service is fit for the market.

Quality Improvement

Quality Improvement is concerned with raising the quality of a product or service. Quality improvement is therefore primarily concerned with self rather than with others. Processes focused on quality improvement are also focused more on specific aspects of universities unit's performance than on overall performance. It is usually the case that constraints command that efforts at improvement need to be targeted at areas of greatest need.

Quality in Learning Management

Learning management differs in numerous respects from the practices employed in face-to-face education and the practices employed in online (e-learning). The ways in which quality comparisons are made needs to recognize that these differences exist and also to take them into account when the processes for judging quality are designed. It is not appropriate to judge the quality of programs offered online by the same criteria as those used to judge the quality of programs offered face-to-face or by print-based distance education, even though in overall terms some comparability among differing offerings of the same program in different modes may be required. However, it is important to recognize that there is a high degree of cohesion. The overall design of a course and its assessment are likely to be unaffected by the mode, and many of the same resource materials will be used in different modes. Where differences are possible to be most noticeable will be in the area of delivery of the program and in student support.

A Framework

The framework is intended to assist institutions to organize the processes that are being used in the area of quality management.

The structures of the Frameworks

The complete set of benchmarks covers the range of a university's operations. They are grouped into nine areas:

1. Governance, Planning and Management
2. External Impact
3. Finance and Physical Infrastructure
4. Learning and Teaching
5. Student Support
6. Research
7. Library and Information Services
8. Internationalization
9. Staff

There are a number of aspects of the benchmarking framework that make the structure of the framework difficult to understanding initially.

In the quality improvement framework quality is organized around ten key principles. These principles are intended to include the range of functions involved in supporting online delivery:

1. Informed planning and management of resources
2. Sustained committed leadership
3. Improving access for all clients, incorporating equity, and promoting cultural diversity
4. Understanding the requirements of the learner and reflecting stakeholder requirements
5. Design, development, and implementation of programs for effective and active learning
6. Creating confident and committed staff with new competencies
7. Managing and maintaining the technical infrastructure
8. Evaluating for continuous improvement
9. Provision of effective and efficient administrative services
10. Supporting the needs of learners

Application of the framework also involves the development of checklists and evidence guides that are then the tools that are used in the field. The quality improvement framework can therefore be thought of as a conceptual structure for guiding quality processes rather than as an evaluative instrument.

Applying the Frameworks

The way in which it is anticipated that each of the frameworks will be used is reflected in their respective structures. Using the benchmarking framework involves contextualizing by selecting the set of benchmarks that will be used. For each benchmark, a number of elements are defined: the area of institutional operations to which the benchmark applies the rationale for the benchmark, good practice, and the levels of performance. The use of the benchmarking framework is assisted by the provision of graduated indicators that enable an institution to evaluate, and it must be acknowledged – how well an institution scores against a particular benchmark.

The quality improvement framework also needs to be contextualized to the institutional situation, but this is accomplished somewhat differently. The framework must be contextualized in two ways: firstly, in relation to the functions for which the particular organizational unit is responsible; and secondly, in relation to current institutional priorities. Because the framework has been designed to be broad in the sense of identifying the range of functions that need to be supported by an education or training provider, whereas organizational units are typically responsible for only a subset of functions, each organizational unit needs to identify the principles and best practice indicators that are applicable to its role. Furthermore, because most organizational units do not have the resources to work across all fronts at once, the framework needs to be contextualized to the priorities. The implication of this second step is that the framework will need to be recontextualized at regular intervals. The instrument that is used in the field is not the quality improvement framework itself, but the checklists that are derived from the framework. As institutional priorities will change from year to year, these checklists will likewise change over time.

Choosing between the Frameworks

The objective of establishing a conceptual structure is to guide thinking within a particular field of practice. It is appropriate, therefore, to consider the ways in which each of the frameworks is able to guide the thinking of teaching and administration about the practice of learning management. Both frameworks are capable of performing more or less the same functions within universities in relation to learning management. However, the ways in which the frameworks are designed to be used makes them more suited to some purposes than to others. When comparing the frameworks for the purpose of choosing between them it is therefore more profitable to begin by asking, "For what purposes is the framework being selected?" than "Which framework best ensembles a particular function?" By focusing on the objective of quality assurance in higher education, they found that the benchmarking framework will support a more general comparison, while the quality improvement framework will allow the comparison to be made at an operational level. Conversely, if the principal aim is to provide a means of managing quality processes, then the quality improvement framework will provide a more flexible and adaptable purposes for achieving this aim.

The benchmarking framework has benefited from the extensive consultation with senior university administrators, both in Thailand and overseas, that went into the construction of its benchmarks. However, the same characteristics that recommends it for making comparisons among institutions at the same time reduce its value for managing quality improvement processes within institutions at the operational level. The quality improvement framework, oppositely, is designed to adapt to the characteristics of institutions at all levels. Because the checklists and evidence guides are highly flexible, the quality improvement framework is able to be adapted to a wide range of institutional types and organizational structures.

Methodology

A preliminary study was conducted by using questionnaire and interview to collect the data from IT managers. The population in this study was IT managers in seven universities in Thailand. The descriptive statistic was used for data analysis namely frequency and percentage. The conceptual framework had been provided on Figure 1.

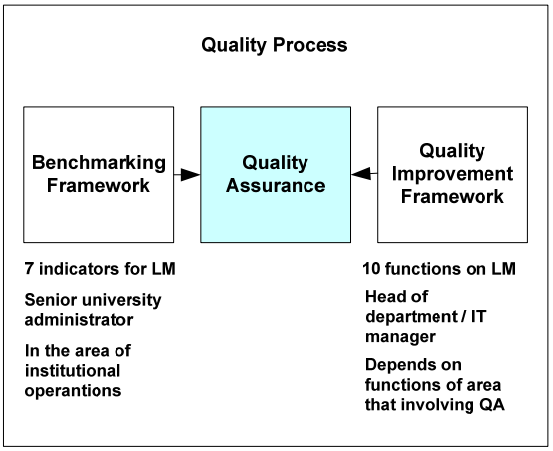

Figure 1. Quality process frameworks for managing learning management

Finding

By the development of learning management criteria and the range of a university's operation were used to compare and reorder the important factors with the benchmarking frameworks. The results illustrated on table 1.

Table 1. Benching frameworks with learning management in quality processes for higher education

The range of a university's operation	No. of priority factor (%)	Learning Management*							Benchmarking Frameworks	
		I1	I2	I3	I4	I5	I6	I7	Quality Assurance	Quality Improvement
Governance, Planning and Management	7 (71 %)	✓	-	✓	-	✓	✓	✓	✓	✓
External Impact	9 (62 %)	✓	-	✓	✓	-	-	-	✓	-
Finance and Physical Infrastructure	6 (76 %)	✓	-	✓	✓	✓	✓	✓	✓	✓
Learning and Teaching	1 (98 %)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Student Support	4 (82 %)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Research	2 (96 %)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Library and Information Services	3 (87 %)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Internationalization	8 (68 %)	✓	-	-	-	✓	✓	✓	✓	✓
Staff	5 (79 %)	✓	✓	✓	✓	✓	✓	✓	✓	✓

Learning Management*
I1: Institution and Organization
I2: Curriculum and Instructional Design
I3: Resources Technology and Information Technology
I4: Learning and Teaching
I5: Learner
I6: Faculties and Supporting personnel
I7: Measurement and Evaluation

In table 1, the results in this study revealed that the universities emphasized on learning and teaching had 98% while research 96%, Library and Information Services 87%, Student Support **82 %**, Staff **79 %**, Finance and Physical Infrastructure **76 %**, Internationalization **68 %**, and External Impact **62 %** respectively. They also presented that all the university's operation domains had implied to practice both quality assurance framework and quality improvement framework. In terms of learning management indicators, those indicators had been integrated by both benchmarking frameworks. By focusing in each element, the results revealed that the external impact had been the last factor and the last indicator of learning management, and it only had quality assurance framework for inspection on quality processes. Results from interviews, in comparing the frameworks in relation to their scope, one finds areas of commonality as well as areas of marked difference. The benchmarking framework encompasses the area of teaching and learning that the quality improvement framework had as its main focus. However, for staff specifically involved with teaching and learning, both frameworks therefore have something to offer. However, areas of overlap that lie outside those that are immediately obvious should not be overlooked. For example, although the quality improvement framework focuses specifically on education and training delivery, it also deals with functions such as information technology infrastructure support, student learning support, and even institutional leadership. The benchmarking framework, for its part, has included benchmarks for finance and physical infrastructure that overlap with the quality improvement framework dealing with the planning and management of resources and benchmarks for student support that overlap with the needs of learners.

Conclusion

Both the benchmarking and the Quality improvement frameworks represent potentially useful tools for managing quality processes. From this comparison, however, it is apparent that the applications for which each is suited are somewhat different. The suitability of the frameworks for different purposes lies not just in the structures of the frameworks, but also in their degree of abstraction, the ways in which they are intended to be used, and their adaptability to different contexts. For comparing the overall performance of universities in the area of learning management, the benchmarking framework has some applications. However, when it comes to making operational decisions in relation to the management of individual organizational units, the quality improvement framework is likely to be found more useful. The reasons for this lie not just in the fact that this was the purpose for which the framework was primarily developed, but also because it is more adaptable to individual contexts.

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