

An Integrated Electronic IQA System for HEI

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INTRODUCTION

Regardless of what academics believe or like, with the depletion of public funding and increased competition, the reality is that higher education institutions' (HEI) future is more business oriented potentially affecting educational quality (Haworth & Conrad, 1997, Bowden & Marton, 1998). This over-commercialization and internalization to achieve individual "economic" needs rather than meeting the public needs and concerns is an issue that affects strong and sustained academic performance excellence. Yin, *et al.* (2002) noted that the education policy needs to include economic viewpoints that highlighted the needs for the institution to change the internal educational structures and systems to meet different educational purposes and aspirations by identifying, procuring and allocating appropriate resources for inputs that enhances the efficiency of internal processes of the system and its sub-systems to meet the short-term and/or long-term education needs. Conti (2006) also emphasized the need of understanding the quality management from the systems perspective by extending the quality management concepts of economic transactions to social relations that ultimately creates value to the stakeholders.

HEIs have a responsibility to the society to develop the future societal human capital through its educational value that they propose to the stakeholders through its internal value creation processes. The central issue is what and how these internal processes are aligned to create this educational value proposed to the stakeholders.

BACKGROUND OF STUDY

External Quality Assurance (EQA) as represented by any accreditation requirements has been prescribed voluntarily or mandated where all HEIs subscribe to or are mandatorily coerced into (Wells, 2014). While EQA hypes the protection of stakeholders' values in learning outcomes and competencies, the accompanying and complementary Internal Quality Assurance (IQA) struggles to keep up with the pace of EQA progress and requirements (Kettunen, 2012). Systems and mechanisms in accomplishing and achievement EQA requirements falters or are sidetracked due to the mundane IQA with volumes of documents, reports, statistics and evidences requirements of quality measures of processes and results underlying education value (Prikulis, Raugvargers, & Rusakova, 2011).

In attempting to resolve this issue, this chapter explores the key components of quality, information and planning underpinning education excellence to align the integration of the 3 main IQA core systems of quality management (QM), information management (IM) and planning management (PM) as these encompass most aspects of the creation and delivery of the educational value of HEIs. The proposed integrated eIQA is strategically and tactically aligned top-down and bottom-up where quality management is aligned with planning management via information management leading to informed decisions affecting quality management at all levels of the institution, administrative units, colleges and programs. To illustrate these QM-IM-PM linkages via its key

integrated e-modules, a case study of a leading university in the Middle East demonstrates this strategic integrated eIQA system.

CONCEPTUALIZATION OF AN INTEGRATED eIQA IN HEI

Arcaro (1995) stated that “Quality is creating an environment where educators, parents, government officials, community representatives, and business leaders work together to provide students with the resources they need to meet current and future academic, business, and societal needs”. This would mean that comprehensive systems and mechanisms to enrich and enhance these quality environments, albeit an integrated one or hybrids (Marsh, 1995), are an imperative for improving education through quality management (Tribus, 1993). These policies and procedures include faculty and personnel selection, motivation, development, engagement and retention; learner entry, guidance and student service and support systems; management information systems; student assessment; management of developing, delivering and evaluating learning programs and resources; availability and allocation of financial, administrative and physical resources; governance & administration; planning, monitoring and management of all educational performance measurement and management. All these allude to the ISO 8402 definition of a quality management system (QMS) as “the organizational structure, processes, procedures and resources needed to implement quality management”.

Goldberg and Cole (2002) identified three levels of education quality management application as 1) the management processes of HEI; 2) teaching quality to students who are both customers and workers in the educational system; with 3) highest level of quality in learning to achieve the desired results. These meant that educators must question their core teaching and learning processes, teaching pedagogy & strategies, and assessment methods. They contended that the traditional “institutionalized rationale” be replaced

by a systemic quality approach as espoused by Deming (1994) that “a system is a network of interdependent components that work together to try to accomplish the aim of the system.” The change to a systems perspective where the change is more systemic, the more the institution embodies changes in behaviors, culture, and structure, strategies, philosophies, processes, people, systems and mechanisms, the more lasting the change will be which is in line with Deming’s seventh principle resemblance of Senge’s (2006) systems thinking.

These systemic and the systematic processes where activities interact to achieve defined goals resulting in the quality of the product and services, constituting the QMS, is defined by DTI (2015) as “A set of coordinated activities to direct and control an organization in order to continually improve the effectiveness and efficiency of its performance”. This QMS enables an institution to provide consistency and coherence in the interactions and integrations of all education activities and processes of the institution’s goals and objectives achievements of its policies and strategies. This begins with the identification of stakeholders’ (students & parents, faculty & staff, regulatory bodies & society) requirements resulting with their satisfaction at every transaction interface. The QMS can be visualized as a “wedge” that both clasps the improvements, innovations and achievements along the quality journey, and prevents good practices from slipping back. Rouse & Putterill (2003) identified the QMS performance triplet as: performance measures, performance analysis and performance evaluation that corresponds to Altman’s (1979) three component of evaluation, data analysis and performance measures underpinning the QMS architecture.

An effective and efficient integrated QMS supports strategic directions with tactical implementations meeting stakeholders’ requirements and expectations; bringing about efficient and effective educational processes to create and deliver on educational value; reducing wastages and lower costs through activity based costing of the educational costs in deliverance of education values; and ultimately increasing morale and

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