# Chapter 48 An Integrated Electronic IQA System for HEI

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## **ABSTRACT**

Most HEIs have piecemeal partially linked QMS (quality management system) or mechanisms to manage the data, statistics, and documents. The integrated eIQA structured in nine e-modules are aimed at integrating the quality-information-planning trilogy into a paperless online real-time era of quality-information-planning management working in conjunction with each other holistically to support the key management and institution performance management and informed decision making. The linkages are established via the key reports, statistics, documents, action plans, and projects required of quality management and accreditation across the QMS-PMS (planning management system) duo, as supported by a data warehouse and its application data marts that interlink the nine e-modules in eIQA.

# 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 overcommercialization 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.

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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

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