


# Integrated Electronic HEI Performance Management

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## INTRODUCTION

Organization performance has traditionally been in the forefront of public and private enterprises on the rationale of strategic and operational process efficiencies and results effectiveness of value creations. Over the past decades, HEIs (Higher Education Institutions) as organizations offering educational values have slowly embraced the more business oriented management fundamentals to manage the HEIs professionally albeit profitably in its educational value creations to the students' effectiveness and employability. These managerial practices are more visible in the planning, quality assurance and accreditation pursuits and OBE (Outcome based Education) that forms the foundation of the HEIs assurance in meeting the market and societal needs of solid and quality education experiences and values to the students who represent the future of any society (Sousa, et.al., 2014; Hazelkorn, 2007).

All these managerial and quality endeavors are linked to the programs and institutional strategic and operational plans resting on huge disparate silos of data and information from academic-administrative units. Inadvertently colleges/programs/HEIs are asked the very basics of their outcome based accomplishments and achievements that encompass the performance management fundamentals. HEIs have harped on IR (Institutional Research) to holistically link educational quality assurances practices to planning underpinning students' performance and effectiveness through the wealth of data crunching and mining critical to the performance management for the colleges/programs/HEIs (Dawson, et.al., 2016; Hrabowski, Suess & Fritz, 2011a, 2011b; Picciano, 2012; Brudan and Zarnecu, 2015). These existing IR practices and performance management can be enhanced and expanded through an integrated electronic system that seamlessly extracts data from student, faculty, infrastructure and resources administrative and academic silos channeled towards the educational applications and colleges/programs/HEIs management and their re-invention (Clarke, Nelson & Stoodley, 2013; Hilbert, 2013).

While most HEIs have their customized Information System supporting planning, quality-accreditation- information-planning management in one form or another, these are exclusive within the HEIs context and needs. Of the research publications of these systems in support of informed decisions, there is a lack of in-sights into a holistic integration of the quality-planning-information systems that are used to prepare the operational course-program-self-study reports and performance metrics that links the planning-information duo from operational-tactical-strategic levels by faculty-program/college/institutional management based on data analytics. As such, it is posited in this chapter that the strategic triangularization of the QPIT (Quality-Information-Planning Troika) can lead to the development of an integrated electronic quality-planning-information system linking the IR (Institutional Research) goals to meet the faculty-program/college/institutional management needs and expectations based on data-performance analytics. This integrated electronic QPIT management system underscoring educational performance management is advocated to create and deliver on better value added education performance

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of educational value meeting stakeholders-society-students' needs, HEI basic accountability of its stated mission through the proposed integrated systematic electronic PMS (Performance Management system) that closes the theoretical and practicalities gaps an electronic education performance management system.

Based on the rational above, this chapter proposes an integrated electronic system that links the QPIT (quality-planning-information troika) which is the basic foundation of performance management in any organization or organizational units. A leading university in the Middle East case study is used to illustrate this integrated electronic performance management system (e-PMS). Since 2016, the Phase 1 of the e-QMS (Quality Management System) (Teay, 2017) has been applied to the institutional-programmatic quality-accreditation management. The Phase 2 encompassing the development of the full-fledged ITQAN 2020 PMS (Performance Management System) is aimed at linking the quality-accreditation-planning management via information management and the use of BI (business intelligence) tools for its data and its learning analytics and methods (Avella, et.al., 2018; Daniel, 2015; Elias, 2011; Dekker et al., 2009; Feng et al., 2009; Ming & Ming, 2012) to support better informed decisions (Educause, 2010; Baker, 2007; Teay, 2018).

## BACKGROUND: PERFORMANCE MANAGEMENT IN ENTERPRISES AND HEIS

The world is facing digital disruptions that could potentially affect the redundant value-chain activities or repetitive manual work (Dawson, et.al., 2016) of not only operational work in enterprises but also administrative-academic work in HEIs. The operational mundane administrative works run from developing the semester course specifications and reports, annual program specifications and reports to the 5-years program self-study reports. At the tactical level, department heads need better understanding of the student effectiveness through performance analytics. These cover a wide range of administrative and operational data gathering processes aimed at assessing institutional/collegial/programmatic performance and progress in order to predict future performance and identify potential issues related to academic programming, research, teaching and learning (Hrabowski, Suess & Fritz, 2011a, 2011b; Picciano, 2012). The strategic level decision making covers fiscal sustenance and enrolment strategies, programs offers and closures, infrastructural and resources planning and management efficiencies and effectiveness.

"Data and information is power" mentality has always been key organizational barriers in performance analytics and management (Kellen, et.al., 2013). Additional issues include: (1) pulling "quality" data out from all legacy systems silos across an enterprise, breaking out of "we know mindset" by pulling and linking them together so that the management or staff can look at them in any one of 50 or 100 dimensions, and (2) having capabilities and transferrable skills when adopting new technology to bridge the technical and the business sides (Manuel et.al., 2016; Kellen, et.al., 2013). This highlighted a McKinsey survey of 519 executives representing the full range of regions, industries, and company sizes that indicated high performers attributing their data and analytics success to involved leaders, while low performers say their biggest challenge is designing the right organizational structure for analytics activities (Brown and Gottlieb, 2016). In a bid to improve performance, GE, the Gap and Adobe Systems (Vara, 2015) dropped ratings, rankings, and annual reviews practices. The focus shifted from accountability to "learning" and development, centrality of team working and agility (Cappelli and Tavis, 2016). This rethinking of performance management would mean collecting more objective performance data through systems that automate real-time analyses with a shift in emphasis from backward-looking evaluations to fact-based performance and development discussions (Ewenstein et.al., 2016).

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