

Exploring Quality Assurance Practices in Management Studies Using Academic Student Information System

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Abstract

The present research explores quality assurance practices in management studies in the Eastern province of the Kingdom of Saudi Arabia. The study illuminates the extent to which the student information system complies with the criteria for national and international accreditation as a best practice in developing country. The quality assurance practices are followed constantly and is well integrated with program needs to enhance learning analytics. There is effective, systematic approach to learning analytics and the quality of service is rated as excellent. Plans for the improvement have been developed and are being implemented, and progress is regularly monitored for reaching the rating of best practice. The results of this study contributes to the current literature on effective quality assurance systems for high quality academic programs and Student Support Services. The author believes that this paper will provide an insight for both researchers and practitioners and be referred for further research.

Keywords: Student information system, learning analytics, management studies, interventions, quality assurance standards

Introduction

Demographics of management scholars have been changing by leaps and bounds, their digital skills are turning more and more prominent in everyday life and the role of technology continues to become more omnipresent. Information technology has helped to deliver new features that support personalization and interactivity in all fields of study and this holds true for management studies too [1] [2]. Student services are the “administrative backbone of higher education” and are time and again the ultimate contact points of the students [3]. These services range from admission and enrollment to technical documentation. The student information system popularly known as SIS, is a vital product for any educational establishment. This student record system includes data, for instance, prior educational qualifications, the paths and modules in which students are and will be enrolled, records of absence and assessment grades. All of them provide potentially helpful data for learning analytics. Learning support services are as important as providing learners with an excellent academic content to guarantee their educational achievement. Moreover, an adequate learner support services play an essential role in creating a feeling of belonging to students who do not have access to traditional services [4]. Universities in developing countries followed the steps of their counterparts in developed countries to increase student satisfaction and consequently have a positive impact on student engagement. Effective and responsive learner support services will help learners succeed, achieve their learning goals and enhance students experience in developing countries.

The Saudi higher education sector has viewed a rapid development during the latest four decades. Higher education in Saudi Arabia applies integrated solutions to replace existing systems and the latter decade has seen a remarkable global diffusion of such enterprise-level Student Information System. The Eastern Province is the largest province of Saudi Arabia by area and in terms of oil production and a global hub for chemical industries. The location of the management colleges in the hub of a world-class industrial city surrounded by petrochemical and support industries is an added advantage of the existence of a large and diversified job market in the fields of business. One of the biggest challenge for the college are to ensure effective quality management systems for High quality academic programs and efficient Academic and Student Support Services to keep in pace with national center for academic accreditation for instance Education Evaluation Commission and international accrediting bodies ACBSP. The system for quality assurance and accreditation is designed to support continuing quality improvement and to ensure good international standards which are generally considered best practice in higher education throughout the world. The extent to which the enterprise-level Student Information System (SIS) supports nearly all student linked services, processes and business affairs at the university and improves university operational efficiencies is the most deciding factor for effective quality system. Another factor is the increased services to end-user community through a simplification of application portfolio to keep abreast of institutional needs. The rate to which these best practices are adapted and is useful in attainment of student learning outcome by the institute is a paramount feature of accredited management standards.

Research surveys indicate the presence of high managerial competencies [5] and highly entrepreneurial quotient [6] among students pursuing management studies. Literature reviews on developing competencies for competitiveness among management students [7], need analysis for the human resource management program [8] and exploring factors for successful career fair for students of management studies [9] are available. However insufficient literature has illuminated the degree to which the student information system comply with the criteria for national and international accreditation in management studies as a best practice as well as to encourage learning analytics.

This paper explores quality assurance practices in management studies in the eastern province of the Kingdom of Saudi Arabia. The level of compliance with this standard is judged by the extent to which the good practices are followed. This study will further lead to the current literature and help universities in developing countries make the right decisions with regards to the Academic Students Information System for purposes of understanding and optimizing learning analytics. It will further provide aggregated statistical data required for planning, reporting and quality assurance.

Theoretical Background

Reviewing the literature revealed that Swartz and Orgill (2000) [10] summarize the advantages of implementing enterprise resource planning in higher education as improved access to information, improved workflow and efficiency, and the ability to improve controls and to program alerts [11]. There were limited studies of an exploratory nature about university portals in developing countries. Portals at Nigerian University are averagely designed and do not take complete benefit of the functions which a well-made portal can deliver [12]. Investigating Lebanese University portals was found that a potent portal can be attained by high-quality management and professional leadership of an efficient information technology department [13]. A comparison study conducted by Altayar et al. (2010) [14] between university portals of the UK (a developed country) and Saudi (a developing country) universities. In Saudi universities, the adoption of universities' portals, was a top management initiatives while it was the IT department grassroots initiative in the UK. The Saudi universities bought ready-made solutions in terms of an

implementation strategy in comparison to the developed in house portals of UK. Kittner and Slyke (2000) [15] estimated the significance of Information Technology for academic as well as administrative functions for Cranton University. In another study, Klaus, Rosemann and Gable (2000) [16] discuss that the salient role of ERP systems in academia by offering support, while communicating with researchers and in education and training. In related work, Sabau et al. (2009) [17] offers a framework to examine the technological aspects of the application of enterprise resource planning systems in Romanian universities. One more such framework is that developed by Fowler and Gilfillan (2003) [18], designed to help and assist higher education institutes in improving the implementation and development of large and complex enterprise resource planning systems. Their purpose was to provide general guidance and links for cooperation between different stakeholders, groups, including senior university management, project teams and systems vendors. Hayes and Utechtm (2009) [19] also conducted a case study for carrying out enterprise resource planning system by a university, measuring the return on investment in a higher education institutes and managing organizational change. Captivating Monash University in Australia as a case study, Seng and Leonid (2003) [20] demonstrated their model developed for process-oriented higher education institutes and discusses the implications for information support in this environment. An earlier study by Pollock and Cornford (2004) [21] of a particular case in the UK focuses on how the development, execution and utilization of both general and university-specific functionality are mediated and shaped by fundamental long-standing tension within universities. Okunoye and Folick (2006) [22] focus on the pre-implementation phase covering the key stages of implementation of enterprise resource planning systems at Agora University with particular emphasis given to organizational dynamics. Rabaa'i, Bandara, and Gable (2009) [23] carried out a descriptive case study conducted at Queensland University of Technology and covering many aspects, including enterprise resource planning, customization, integration and evaluation. During the last decade in Saudi Arabia, enterprise resource planning systems have been installed in both the private and public sectors. Some have simply implemented packaged software systems for instance SAP, ORACLE, PeopleSoft while others have built up new local enterprise resource planning systems like MADAR. Research work in Saudi Arabia were more focused on enterprise resource planning systems and their investigations and general technical aspects [24] [25] [26]. On the other hand, researchers at King Saud University (KSU) have devoted special efforts to preparing and executing a local enterprise resource planning system called MADAR. [27] [28] [29] [30]. The latest empirical study of IT projects success are factors that consider top management support and commitment, project management, project team competency, communication management, strategic planning, training and education, partners and suppliers management and stakeholders management [31]. A limited number of research work have looked into learning analytics using Academic Student Information system. Most of the study involves empirically investigation of the role that technology plays on the usage of ERP systems in different universities from the perspective of their stakeholders' performance. Moreover, there exists a research gap on considering the Student Information System for assessing the quality of management education with reference to generally accepted standards of good practice that serve as criteria for evaluative judgments. Thus, based on the above literature analysis, there seems to have been a shortage of research studies in Saudi Arabia regarding quality assurance practices for student information system in higher education and the objective of the research is to append to the sparse literature in these areas.

Research Methodology

The overall aim of this research is to review existing Student Information System in Management Studies in the Eastern province of Saudi Arabia. The practice of use of SIS is followed in all

the colleges in the region .The study is based on mixed-methods research, that makes use of both qualitative and quantitative data in a way that enables the insights to be mutually illuminating [32] [33] .Mixed-methods research provides a numeral advantages as it uses both positivist and interpretivist approaches through Triangulation. This will enable to check whether the interpretation of the evidence that is formed in the light of other available evidence gathered in a different way, adds credibility to the conclusions[33].The data collection methods for the present study includes observations, narrations, interviews with focus groups and secondary data. Interviews are commonly applied in case studiesas they form one of the most common and potent ways in which theresearcher can gather valuable data to understand human beings [34] andtheir lived experience [35].

Wherever possible, direct evidence ofthe quality of performance isobtained .Every effort is made to form valid and reliable judgments based on evidence. Number of these evaluations could involve subjective judgments and to avoid an illusion of precision, rubrics was prepared for rating of quality assurance. The practices were classified as best, excellent and good. These practices were described in terms of the degree to which extent and consistency, the quality of the service and effectiveness of learning analytics are followed in achievingdesired outcomes.Performance is assessed on following preparedscales for judging each standard and sub-standard practice.

Table 1: Rubrics for quality assurance practices

Practice	Consistency	Quality of service	Effectiveness of Learning Analytics
Best	The practice is followed constantlyand is wellintegrated with program needs.	The quality of service is of highly superior quality in relation to other comparable institutions with sustainedexcellent performance Levels.	There is effective,systematic approach to learning analytics .The approach is deployed Withoutsignificant gaps.
Excellent	The practice is followed constantlyand is wellintegrated withprogram needs.	The quality of service is excellent. Plans for this improvement have been developed and are being implemented, and progress is regularly monitored.	There is effective,systematic approach to learning analytics.There is bit variation in deployment considering minor gaps.
Good	This practice is followed most of the time and is in earlystages of alignmentwith basicprogram needs.	The quality of service is good but high room for improvement is accepted.Early stages ofdeveloping trends are evident.	Evidence of the effectiveness of the activity is usually obtained with that satisfactory standards with some areas are in earlystages of deployment.

Results and Discussion

The present study was confined only to managementstudies in the Eastern province of Saudi Arabia.While the study is mainly meant to support evaluations and planning for improvement within the establishment, it also establishes levels of functioning that are considered indispensable for accreditation. The basis of judgment will therefore be at the stage of the broader standards rather than the exact assessment of performance in relation to each individual practice as revealed below:

The Status of Student Information System :The student information system implemented by education establishment manages student data and supplies services for registering students in courses, documenting grading, transcripts, results of assessment scores, building student schedules and tracking student attendance. It is of significant importance for learning analytics as it delivers data about learners for optimizing learning and the environments in which it happens. Faculty members and students both play a pivotal role for improving undergraduate management studies.

Purposeful Enrollment:Maintaining and updating an efficient and effective student support service is regarded as one of the most important measures to comply with quality assurance mechanism for management studies at national and international levels. The management studies being a competitive discipline SIS proved to be of great support during the students' enrollment and made admission processes efficient, fair, and responsive to the needs of students for entering the program. All information related to the criteria for admission, program requirements and program completion was clear and readily available for prospective students. It went a long way in building stronger connections with prospects, with personalized communications and were capable to progress toward enrollment goals through analytics. Moreover, it helped to prepare a course registration plan from a student's existing degree plan and build schedules. The SIS can be accessed using mobile phone making the system handy.

Successful Visualization:Students were able to see their absence hours, degree plan, transcript, cumulative GPA, retention and other measures of student success. It was possible to identify students at risk, and their academic achievement. They can then receive the earliest possible alerts of risk of under-achieving. Those underperforming students with GPA less than 2 can examine their patterns of activity to correlate with subsequent academic achievement. Risk of attrition or not meeting their full academic potential student engagement, attainment and progression in near-real time, flagging any potential issues with faculty members. This holds true regarding absence hours and the failing to meet the required hours leading to denial (DN) to continue the course and stay on path.

Confidentiality of Data: Student records were maintained in a secure and confidential location. Statistical data needed for quality indicators and internal and external reporting requirements and generation of reports on student progress and achievements was being readily available through automated processes that protect the confidentiality of individual student information. Automated procedures were in place for monitoring student progress throughout their course of studies.

Effective Institutional Interventions:From an administration point of view SIS helped to extract data about cohort, trend analysis, grades analysis in terms of A's, B's, C's, D's and F's. The year to year progression rates and program completion rates are monitored, and actions are undertaken to help any students needing assistance. Effective systems are in place for monitoring and coordinating student workload, prompt feedback on assessments teaching staff are familiar with the support services available in the institution to students, and refer them to appropriate sources of assistance when needed. The adequacy of arrangements is periodically assessed through processes that include, but are not limited to, feedback from students.

Measurement and Analysis of Student Learning and Performance: Management studies must have an assessment mechanisms to measure learning outcomes for the development and improvement of the academic programs. Student learning outcomes cover a wide range of skills, knowledge, and attitudes that can be influenced by the educational experience. There was availability of three to five consecutive sets of assessment results for programs stating the measurement and analysis of student learning and performance and its alignment with institution mission.

Academic Advising and Counselling:Adequate provision is made for academic advising and counselling services to assist students in planning their participation in the program and in seeking

subsequent employment. Taking into consideration the high demand for the course, counselling sessions are carried out to encourage high performance as well as for those whose GPA is less than 2. The progress of other individual students are also monitored and assistance and counselling are provided to those facing difficulties. Criteria and processes for academic appeals are being made known to students and administered fairly. Advising provides a comprehensive view to help students reach their goals, simplify transfers with the help of robust academic planning tools.

Alteration of Student Behavior: This seems to be a significant finding, implying that intervention strategies with struggling students could be extremely important for institutions. It appeared that when students became aware of their risk level, they tended to alter their behavior, with resulted in improvements to their performance be it grade or absence hours. SIS can also help universities about improving the efficacy of interventions. Student engagement in near-real time, institutions can examine how effective an intervention is proving with each individual soon after kickoff of their studies.

The Studentsatisfaction: Evidence of survey reports mentioned high satisfaction in terms of utility and accessibility as well as generation of reports like a transcript, degree plan, To Whom It May Concern, class's schedules and exam schedule. Maximum of the students agreed that they receive the pop-up messages in advance for advisor meeting as well as for registration and that they are provided with the important information such as attendance, records and final result. A large number of the students responded that there are issues with pages load and navigation but their personal information name, GPA, mobile number were highly secure. Most of the students felt that the services such as remaining courses, study plan analysis and students clearance proved be very valuable. Overall majority of the students were highly satisfied with the system however they have recommended to upgrade and adapt new changes to enhance learning analytics.

Room for improvement: It is not estimated that every program will rate at the utmost level on all dimensions of activity and setting up such unrealistic expectations is not the objective of the research. Instead providing descriptive performance standards made a clearer basis for evaluation. These result helped the institution as a whole to identify areas of relative strength and weakness, and to work towards improvement in spheres of activity that are considered priorities for development. Based on the activities mentioned in the substandard the overall quality assurance practices can be rated as excellent. The practices mentioned in the substandard are followed constantly and is well integrated with program needs. The quality of service is excellent in all the substandard. Plans for improvement have been developed and are being implemented, and progress is regularly monitored in all the substandard.

There is effective, systematic approach to learning analytics but, there is bit variation in deployment considering minor gaps. There is also need of strong sense of shared purposes, policies and procedures consistent with the purposes and concrete support from administrators. These sources of support and influence can further encourage environments for good practice in undergraduate education by keeping bureaucratic regulations to a minimum and providing the support for programs. There is also a need to upgrade the system with, functional solutions enabling the establishment to have more information at their fingertips for learning and teaching enhancement. Good practice in undergraduate education is about more contact between students and faculty, give prompt feedback, support student responsiveness to risk and modifications in behavior.

Conclusion

Early digital technology allowed institutions to utilize the student's information to supply the learner with a customized, simplified and engaging experience in every step of learning, Moreover management studies today is extremely competitive and constantly changing its strategies to be in the market leading status. The accrediting associations have the ability to shape an environment that is favorable to good practice in higher education. Exploring quality assurance practices in Management Studies using Academic student

Information System helped in improving learning analytics as well as identified regions of relative intensity and weakness, and to develop and enforce action plan in spheres of activity that are considered priorities for growth .

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