

Assessing Management Information System (MIS) User Satisfaction through the Delone and McLean Model in Higher Education

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Abstract

This thesis briefly presents a proposed research project, which will evaluate the Management Information System (MIS) user satisfaction in institutions of higher learning, using the updated DeLone and McLean Information Systems Success Model. The fast digital revolution in higher education has seen enormous investments in the complex MIS including Student Information Systems (SIS) and Learning Management Systems (LMS). The success of such systems, however, does not just hinge on all the technical functionality but largely on the acceptance and satisfaction of the users. The gap in knowledge in this research is how an integrated MIS environment works between heterogeneous stakeholders (students, faculty and administration) in a higher learning institution and the contribution made by different aspects of quality to the overall user satisfaction (System Quality, Information Quality and Service Quality). The research hypothesizes quantitative, cross-sectional survey design with PLS-SEM data analysis as the tool to discover the strongest predictors of user satisfaction. The results would offer meaningful information to institutional policy makers, MIS managers, and system developers to streamline MIS implementation, increase user satisfaction, and ultimately maximize net benefits of MIS investments in higher education.

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Chapter 1: Introduction

1.1 Contextual Background and Digital Transformation in Higher Education

Complex Management Information Systems (MIS) are currently being applied by higher education (HE) institutions in their practices in the administrative and academic functions and strategies [1]. These systems can be Student Information Systems (SIS) and Learning Management Systems (LMS), which can be discussed as a significant institution investment to help students decide relying on data [2]. The technical complexity is not the difference between the final success of the systems but rather the efficiency in their usage and acceptance by the end-users [3]. User satisfaction is one of the most vital indicators in evaluating the effectiveness of MIS in HE as the high rate of the former is linked with increased system utilization and increased merits generated by an organization [4]. To determine this multi-faceted notion mentally, the Delone and McLean (D&M) Information Systems (IS) Success Model is common among researchers [5]. It is a multi-dimensional paradigm that fits the theoretical framework of investigation of effectiveness of MIS in the HE sectors best [5].

The current phase of digital transformation has never been witnessed before in higher education institutions around the world due to the accelerated technological change, globalization of education, high levels of student mobility, and higher standards of quality, transparency, and accountability [1][2]. Data-driven reporting and performance monitoring that is being demanded by the governments, accreditation organizations as well as stakeholders are contributing to the demand of digital infrastructures that have necessitated universities to invest heavily in digital infrastructures. Management Information Systems (MIS) have become the center of the integration of academic, administrative, and strategic processes. For this reason, these systems are used to gather, process, store, and share data within the institutions allowing them to operate more efficiently and responsively in a competitive knowledge economy [6][12].

The use of MIS in higher education is not only a process of change of technology but also a change of processes and culture of decision making. MIS has become the foundation of university management of admissions, enrollment, assessment, grading, faculty and budgeting tasks as well as compliance reports. The adoption of these systems has transformed the flow of information among the departments and has minimized the silos and increased holistic oversight of the institution. Yet, the sophistication of these systems also poses the problems tied with their usability, acceptability by users, as well as sustainability over long-term, which contributes to the fact that the systematic analysis of their competent functioning is a key issue in the field of research [3][4].

Collectedly around the world, universities and colleges are finding themselves in a phase of deep digital change, a process of change precipitated not merely by new technological possibilities, but of core shift in the perception of stakeholders, regulatory pressures and competitive dynamics of the knowledge economy. The predominant use of elaborate Management Information Systems (MIS) that have evolved into administrative aids into strategic resources is the hallmark of this change. The academic and administrative processes have become highly dependent on systems like Student Information System (SIS), Learning Management System (LMS) and Enterprise resource Planning (ERP), which undertake all forms of work like admissions and enrolment; curriculum management and financial planning among others.

These advanced MIS are expensive to invest in, and they mostly display one of the capital expenditures that a university might make. This investment should be justified chiefly by the possibility to use data as the basis of evidence-based decision-making and improve the efficiency of the institution, as well as increase the overall student experience. But the real success of these systems does not lie in the technical advancement but rather in the