



Explore the Effectiveness of Students' Information Management Systems (SIMS) In Handling Academic and Administrative Operations in Higher Learning Education Institutions in Tanzania

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ABSTRACT: This study explored the effectiveness of students' information management systems (SIMS) in handling academic and administrative functions at Jordan University College. The objective of this study was to determine the academic and administrative functions of an efficient information management System in Morogoro Municipal. The study sample comprised 231 respondents selected through simple random sampling. The study employed mixed research approaches. The data were collected using a questionnaire, interview and a documentary review. The quantitative data were analyzed using SPSS version 20, and the qualitative data were analyzed thematically in line with the research objective. The findings of the study indicated low mean scores, suggesting that respondents were aware of the use of SIMS, that SIMS serves multiple functions, and that it is used for reporting efficiency and for supporting management decision-making. The study recommended that the institution conduct ongoing training for SIMS users to ensure the efficient and effective use of the system. The study recommends that the university should continue using SIMS in managing all academic and administrative functions such as student's registration. This process should ensure that all students are registered on time and their details are available in the system. The study recommends that to ensure efficiency in academic and administrative functions, all SIMS users such as teaching staff, loan officers, accountants, HoDs, and admission officers should be vigilant to ensure all students' records are tracked and inserted in the system based on the policies and procedures to ensure that such records are available in the system on time.

KEYWORDS: Academic records, Academic functions, Administrative functions, Higher Learning Institution (HLIs)

1.0 INTRODUCTION

The use of students' information management systems (SIMS) as a records-keeping tool has received more attention in both developed and developing nations. Higher Learning Institutions (HLIs) worldwide use information management systems for students' academic and administrative records management due to their efficiency and effectiveness in record-keeping and retrieval. The student information management system (SIMS) is software installed on computers to perform academic and administrative functions in Universities. Different types of education information management systems play different roles in universities. Some are named as Student Management Information Systems (SIMS) while others are E-Learning Systems, Payroll Systems, Human Resources Management Systems, Accounting Packages, and Library Management Systems (Kayanda, 2022). Such information management systems are designed for specific functional tasks. Furthermore, some of these information management systems are content management tools that facilitate the teaching and learning process in Universities. According to Abd Hamid, NAbu Bakar, & Norhayati Hussin (2017), a learning management system (LMS) is a software application that enables students'

enrollment, administration, documentation, tracking, reporting, and delivery of course materials or training programs in institutions. Some examples of the content information systems include Amadeus which was created by the research group CCTE1 of the Center of Informatics of the Federal University of Pernambuco (UFPE), AulaNet is a Web-based cooperative learning environment developed at the Software Engineering Laboratory (LES) of the Department of Informatics of the Pontifical Catholic University of Rio de Janeiro and Moodle - (Modular Object Oriented Dinamic Learning Environment) Modular Object-Oriented Dynamic Learning Environment was developed in the 1990s by Martin Dougiamas in his doctoral research at Curtin University of Technology in Perth, Australia (Antonio de Lima., Ribeiro de Brito & Caldeira, 2019; Cho,2023). Furthermore, in the 2000s, Korean Higher Learning Institutions (HLIs) embarked on the emergence of cyber universities, e-learning platforms and open courseware. The Korea Open Courseware (KOCW) is software that facilitates the teaching and learning process, which also includes learning materials. This software was operated by the Korea Education and Research Information Service (KERIS). When it was launched, it was a great achievement in digitizing

teaching and learning (Leea & Lee, 2024). Elsewhere, Learning Management System (LMSs) became more familiar during the COVID-19 pandemic. Most of the HLI in Africa adopted LMSs to simplify the shift from traditional teaching to the use of digital teaching to improve teaching and learning practice (Maluleke & Maake, 2025). Thus, such electronic content management systems, despite their core functions to facilitate teaching and learning, also keep students’ academic records.

Globally, most Higher Learning Institutions (HLIs) use Student Information Management Systems to facilitate an efficient and effective records management process. Student Information Management (SIM) systems are important in the following ways: they allow student registration, student information entry, administrators' login, student information display, student information query, student information modification, student information import and export, course information configuration and display, user information deletion, course information entry and deletion, and grade display (Liu & Wang, 2025). The use of information management systems can enable automated service delivery in HLIs, such as the provision of record storage, and allow quicker information access among users (Vieira, Seabra, & Garcés, 2025). Information management systems stores and permit accessibility of different types of academic records in universities. In a was study conducted in Colombia by Guerrero & Sierra (2018) revealed that Higher Learning Institutions (HLIs) require information systems to facilitate storage and access of reliable information for better decision-making. In the same vein the accessibility of the accessibility of students’ academic record is crucial in assisting better decision-making in universities. This idea is supported by the study of Musembe (2016), who stipulated that HLIs’ records are crucial for effective, efficient and informed decision-making by university administrators.

In the African context, there has been an effort to integrate technology in educational settings. The African Union Agenda 2063, aspiration 1, Goal 2, highlights developing well-educated citizens with skills in science and technology and innovative ideas (MoEST, 2024). Likewise, the UNESCO Guidelines for ICT in Education Policies and Master Plans 2012 emphasized the use of ICT in education in order to achieve a quality teaching and learning process (MoEST, 2024). Instilling these initiatives, most Higher Learning Institutions (HLIs) in Africa have incorporated Information Management Systems to facilitate educational and administrative functions. Similarly, the Government of Tanzania has not remained behind in adopting and using ICT in HLIs' education. The Government of Tanzania has managed to complete the National ICT Infrastructure Backbone (NICTBB) as a driving force to enhance the use of ICT in education settings (MoEST, 2024). Furthermore, the Government introduced the National Internet Data Center (NIDC) to increase stable internet access among users

(MoEST, 2024). The availability of stable internet enables universities to run the Students Information Management Systems smoothly. The introduction of the ICT Policy 2024 and the revised Education and Training Policy 2014, Version 2023 emphasized the use of ICT in education and training at all levels of education (MoEST, 2024). The ICT Policy encouraged the Government to develop a Digital Education Strategy for Tanzanian Schools, Colleges, and Universities that put emphasis on the use of ICT to improve record-keeping, teaching and learning in Tanzania (MoEST, 2024). To enable digital education and administrative functions in universities, the Higher Learning Institutions (HLIs) by being guided by the Tanzania Commission for Universities (TCU) issued the Guidelines for Online and Blended Delivery Modes of Courses for University Institutions. To implement this, most of the public universities adopted open sources platform the Learning Management Systems (LMS), such as MOODLE (MoEST, 2024). Thus, there is a need to explore and find the status of the use of Student Information Management Systems (SIMS) for academic and administrative record-keeping in private Higher Learning Institutions in Tanzania. There are limited studies that have highlighted the use of Student Information Management Systems to facilitate educational and administrative functions in private HLIs in Tanzania. It is high time to embark on this study to find out the effectiveness of Students’ Information Management Systems in handling academic and administrative operations at Jordan University College.

1.1 General Objective

This study explored the effectiveness of Students' Information Management Systems (SIMS) in handling academic and administrative operations in Higher Learning Education Institution

1.1.1 Specific Objectives

1. Determine the academic and administrative functions of an efficient information management System.

1.1.2 Research Questions

1. What are the academic and administrative functions of an efficient information management system?

1.2 STATEMENT OF THE PROBLEM

Student Information Management Systems (SIMS) has become important tools for managing academic and administrative students’ records in Higher Learning Institutions (HLIs). In Tanzania, there are efforts made by UNESCO, the Government of Tanzania and HLIs to initiate the use of Student Information Management Systems and Content Learning Management Systems (CLMS) in HLIs (MoEST, 2024). Although many HLIs use these systems, there is little empirical evidence on how these systems are used by different users in HLIs, including academic staff, students, and accounting officers, and loans officers in supporting academic and administrative records keeping,

retrieval and sharing among systems users. The previous empirical evidence from Tanzania assessed the impact of electronic records management systems on reducing paper work in HLIs, a case of Mbeya University of Science and Technology (MUST), revealing that MUST use e-office as an electronic system for managing its records (Leon, 2024). While a study by Kayanda (2022) found that the integration of Information Systems (ISs) in HLIs in Tanzania was useful in performing different tasks in HLIs. The study by Sauga and Bulayi (2024) examined the effectiveness of the use of Education information Management Systems (EIMS) and Data management in Tanzanian primary schools and revealed that head teachers accepted the use of the systems due to minimal errors and higher assurance of data security. Yet there is limited evidence that shows how Student Information Management Systems are used in handling academic and administrative operations in Tanzanian HLIs. This study aimed to address this knowledge gap by assessing how users are familiar with systems and how the systems is usefulness in handling multiple functions in HLIs, such as of academic and administrative.

1.3 LITERATURE REVIEW

1.3.1 Theoretical Framework

This study was guided by two theories: the Task Technology Fit Theory (TTFT) and the Technology Acceptance Model (TAM2). Task Technology Fit Theory (TTFT) was used to measure participants’ ability in the use of systems, the theory assumes that the use of technology can lead to positive results depending on individual abilities to use such technology (Goodhue & Thompson, 1995). The researcher measured some variables of this theory, such as users’ ability to use the systems, quality of services, reliability of information, usability, authorization, and compatibility. To measure more variables of this study, the Technological Acceptance Model (TAM2) was adopted (Davis, 1989). TAM Model was adopted in this study, assuming that for the use of any information management system, one must accept using a system. Adopting the TAM Model clarifies users’ acceptance and use of technology due to perceptions of the usefulness and ease of use of such technology. Students Information Management Systems in HLIs facilitate handling academic and administrative functions while ensuring information is protected with a purpose stated, integrity, authentic, reliable, retrievable, transparent, and complying with institutional rules and regulations.

1.3.3 Information Management Systems

According to Kayanda (2022), Tanzanian Higher Learning Institutions (HELs) have implemented different types of information management systems. A descriptive survey study at Lead City and Babcock Universities in South-West, Nigeria by Quadri, Ujunwa, & Ukpere (2025) investigated the effects of information systems on records management practices of the University registry. Findings indicated that users of the registry in both universities utilised information

systems in conducting records management activities. The use of information management systems permits better access to information for users. In a study that examined digital health systems of Ukraine by Kyrlyo & Malakhov (2023) revealed that digital health systems enhance access to healthcare information and help improve the quality of health care. Also, digital health information systems facilitate home-based health services, enabling patient remote monitoring through mobile health and stored forward systems and assisting in the tracking of disease outbreaks. Other information management systems are used in facilitating the teaching and learning process. Konobevtsev, Kashtanova & Lobacheva (2019) Learning Management Systems (LMS) are useful to organize, create, conduct and manage teaching and learning, while Learning Content Management Systems are a tool that provides teachers with effective teaching and learning materials. Furthermore, the paper that discussed the reasons for Brazilian Universities to prefer Moodle as a Learning Management System by Antonio de Lima, Ribeiro de Brito & Caldeira (2019) exposed that Moodle Learning Management Systems were preferred because they provide an intensive teaching and learning process between students and teachers, support face-to-face teaching and support intensive learning between students themselves in distance courses. Besides, in Russia, cash payment information management systems were used for cash payments for meals or catering services for school children. This information management system facilitated cashless payments in school catering services (Mindzaeva & Arinushkina, 2021).

1.3.4 Academic Records Managed in Universities

In the study that was conducted in Nigerian higher learning institutions by Aleru (2022) revealed academic records to include result sheets, department and faculty hand book, lecturers records and files, teachers evaluation reports, inventory of physical facilities, inventory of teaching/learning resource materials, office equipment record, student’s retention metrics record, students record card, attendance register, students graduation metrics record, summary of University budgets, bursary receipts, student projects, thesis and dissertation record, files of all sorts, staff minutes book, part time and sandwich record, continues assessment record, University accreditation books, University Calendar, Education law, National Policy on Education and statistics board. Such important data need to be stored for future access and use. Besides that, important records that are managed in universities include students’ progress transcripts and final year students’ academic transcripts (Usman & Udensi, 2013). Similarly, Adra, Sarmiento, & Bausa (2024) revealed that Online Student Services Digital Records Management System for the Registrar’s Office of Veritas College of Irosin. This system provided digital transactions of several types of documents such as TOR, Certificate of Grades, Diplomas, and Honourable Dismissal.

1.3.5 Information Management Systems Support Academic and Administrative Functions

Electronic Records Management Systems (ERMS) were observed to facilitate academic and administrative functions in institutions. The management of records through ERMS made records easily accessible to support informed decision-making that improved day-to-day operations (Guerrero & Sierra, 2018; Mukred et al, 2021). The use of Information Management Systems facilitates financial records management. The systems have some functional module to perform financial records management functions (accounts receivable, credit and billing, budget module, account payable, and payment request, treasury, accounting module, and payroll module) and Information Management Systems have functional modules to perform administrative records management functions (procurement module, fixed asset module, and ware house and supplies modules (Guerrero, & Sierra, 2018). The study investigated the educational records management of higher learning institutions (HLIs) in Rivers State, Nigeria by Aleru (2024) revealed that education records management in tertiary education increases work performance and institutional performance. Furthermore, the study that examined the impacts of regulations, laws, and standards on implementing effective records keeping systems revealed that systems are required to manage both files and corresponding structures datum (Rebuglio, Ottaviani, & De Marco, 2025). Moreover, a study that investigated the level of ICT integration in records management at Hilla Limann Technical University findings revealed that integrating ICT in records management facilitated quick data processing, storage and management of data, recovery of lost records, made work easier and faster, ensured accuracy and ease of information access and sharing (Afriyie, Yangapuori & Hindu, 2020). Liu & Wang (2025) shown through Information Management Systems, one can perform administrative functional duties such as registration of users by inserting names password, modifying, querying students' information, viewing existing courses, and editing or deleting courses.

The study investigated the importance of the integration of Information Management Systems in institution. The

findings revealed that the systems, when successfully used it increase the effectiveness, efficiency and helpfulness of the process, improve consistency and facilitate documentation management, and increase performance (Redondo et al, 2018). In the same line, the study that used a mixed research approach investigated modernization management systems in Chinese private HLIs by Yang & Prasansaph (2024); findings revealed that 75% of respondents agree or strongly agree that technology had a positive impact on education, especially in facilitating teaching and learning. As well, the modernization of higher learning institutions by integrating cloud computing and big data technology in Chinese Universities facilitated Chinese institutions to have continuous data statistics and information analysis (Sun, 2022). These findings indicate that the use of information systems in education has been shown to enhance academic and administrative functions. The information systems manage students’ information and enable students to get their overall academic performance (Nitron, 2024). Moreover, a study that investigates the information necessities of public universities in Brazil by Vieira, Seabra, & Garcés, 2025) revealed that the Academic Information Management System was used by the higher learning institutions to provide academic and administrative functions such as storing and generating reports; however, some essential requirements were observed to be lacking. Besides, information management systems have been applied in Russian higher learning institutions. The presence of a platform that manages online courses. The administrators use information systems to monitor students’ progress, assessment grading, access to course materials, and facilitate seamless communication and collaborative learning, thus helping in making decisions (Konobevtsev, Kashtanova & Lobacheva, 2019). Finally, information systems was observed to handle task such as data entry, querying, permission management, batch entry and export of information, course information management, information data statistics, modification, and deletion (Liu & Wang, 2025). Thus, there was a need to explore to find out how private HLIs in Tanzania have adopted the SIMS for academic and administrative functions.

3.0 RESEARCH METHODOLOGY

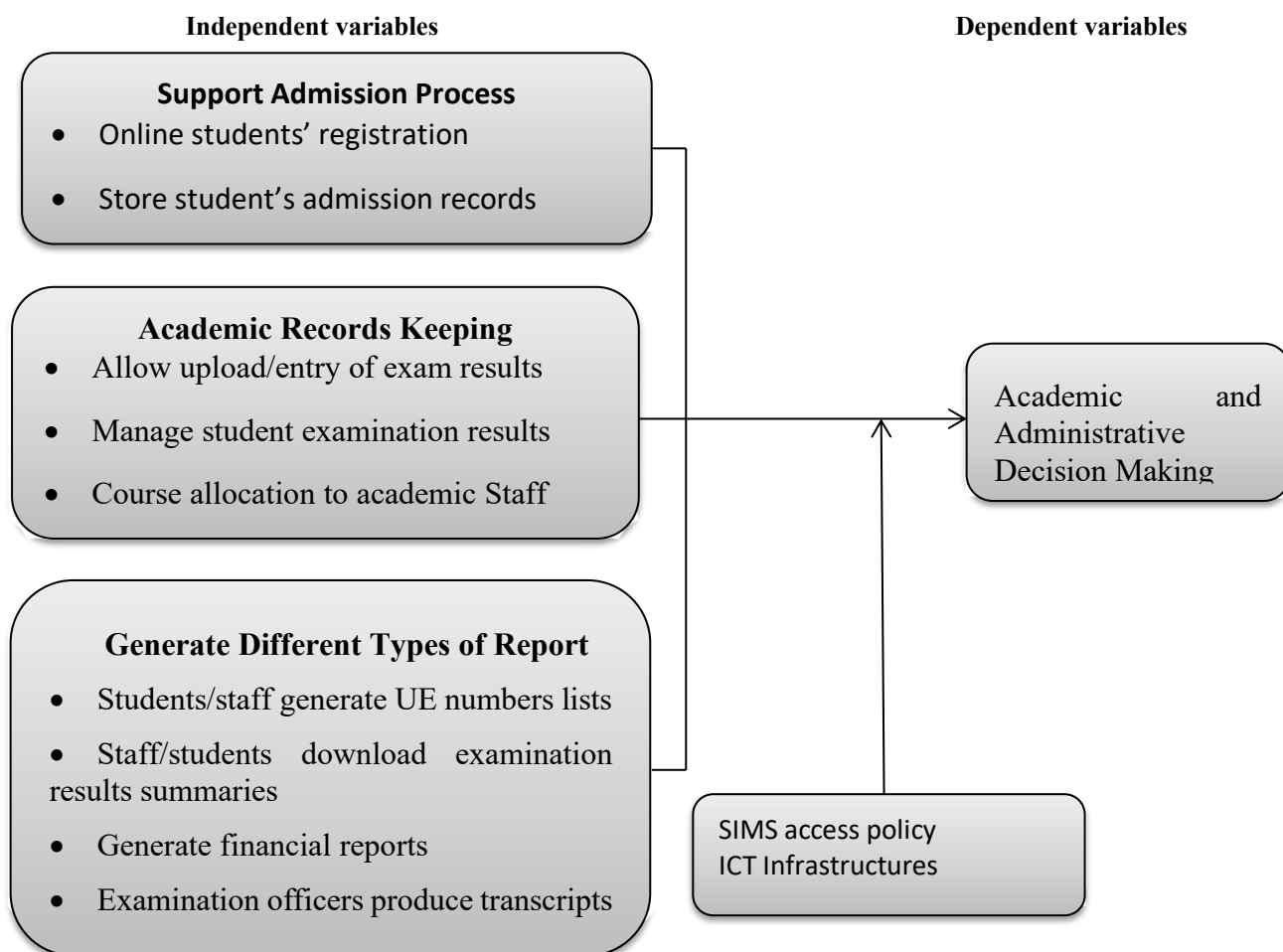


Figure 1: Conceptual Framework Showing Students Information Management Systems (SIMS) as Tool for Improving Academic and Administrative Functions
Source: Researchers Design, 2026

2.0 RESEARCH METHODOLOGY

The study employed a mixed methods approach that utilizes both quantitative and qualitative methodologies. Because the combination of qualitative and quantitative methods allows for better exploration of the research questions by obtaining both numerical and personal experiences (Pregoner, 2024). Qualitative data provided deeper views into the specific challenges and opportunities faced by students, while quantitative data helped to measure the incidence and impact of digital literacy skills (Temirkhanova et al 2024). The study quantitatively used the research questions, including closed and open -ended questions, for measuring the effectiveness of students’ information management systems (SIMS) in handling academic and administrative operations at Jordan University College. On the qualitative side, the study used semi-structured interviews with students. The focus group discussion was conducted with students in order to get their experiences. For data analysis, the study used statistical software SPSS version 20 for quantitative data analysis, which focused on descriptive and inferential statistics, while for qualitative analysis, the study used thematic analysis to

identify patterns and themes for data collected from interviews and focus groups. This involved coding transcripts and categorizing responses to draw meaningful conclusions. The study validated the findings through triangulation, which compared both quantitative and qualitative data to enhance the validity and reliability of the results. Participants were invited to review the findings of their views if have been accurately represented.

2.1 Research Design

The study implemented a convergent research design; this kind of research design combined a mixed-methods approach to collect and analyze both quantitative and qualitative data simultaneously (Younas et al, 2023). This design aimed to provide a comprehensive understanding of the effectiveness of students’ information management systems (SIMS) in handling academic and administrative operations at Jordan University College. The convergent research design was useful in this study due to its ability to deliver holistic insights, combining measurable data with personal experiences (Jokić et al, 2024). Data collection involved

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administering surveys to students and alongside conducting interviews with ICT managers, Deans, HoDs, and academic staff that were randomly selected.

2.2 Study Area

This study involved one Tanzanian HLI, which was purposely selected based on the knowledge that the authors had on Students Information Systems integration initiatives at this HLI. This HLI is made up of one campus located in Morogoro Municipal in Tanzania. The institution has been using the Students Information Management System to improve its decision-making process.

2.3 Sampling Procedure

In the selection of the sample, the study employed a stratified random sampling technique, which ensured adequate representation from different departments. This approach involved stratifying the student population by department; students were proportionately represented. Within each stratum, students were randomly selected to participate in the survey, thereby minimizing selection bias and enhancing the reliability of the data collected.

2.4 Data Collection Methods

The study utilized a combination of quantitative and qualitative data collection methods, employing a structured questionnaire for the quantitative section while incorporating interviews, observations and focus group discussions for the qualitative strand. A total of 231 questionnaires were distributed to students from Bachelor of Education, Bachelor of Law, Bachelor of Library, Records and Information Management (BLRIM), Bachelor of Business Administration (BBA), Bachelor of Sociology, Bachelor of Science in Computer Science (BCS) and Bachelor of Psychology. The analysis of the observation and interview data used qualitative data analysis techniques. This questionnaire consisted of various sections designed to assess demographic information, familiarity of SIMS, and effectiveness of the use of SIMS in academic and administrative tasks. The questionnaire was distributed on paper to ensure accessibility for all students.

2.5 Interviews

The study incorporated semi-structured interviews with the ICT manager, academic staff, Heads of Departments, and Deans. These interviews were designed to provide in-depth insights into the perspectives and experiences of key respondents involved in the use of SIMS in handling academic and administrative tasks at JUCo. The conducted interviews were in a comfortable and confidential setting to promote an open discussion.

2.6 Focus Group Discussion

The study incorporated focus group discussions specifically designed for students. These discussions provided an

opportunity for participants to engage openly and share their insights regarding digital literacy skills and their access to resources in learning environments. The focus groups consisted of students from departments each group including 6 participants to facilitate an interactive setting that encouraged discussion and participation. The students discussed the use of SIMS in handling academic and administrative functions of an efficient information management System.

2.7 Observation

The study incorporated observational methods as a key data collection technique. This approach allowed the study to gain a direct understanding of the use of SIMS in handling various academic and administrative tasks. This observational method enriched the study by providing empirical evidence of how SIMS is used in handling academic and administrative tasks in HLIs.

2.8 Data Analysis Procedures

The data analysis procedures for this study were systematic, ensuring that both quantitative and qualitative data were rigorously analyzed to derive meaningful insights regarding the use of SIMS in handling academic and administrative tasks. For the quantitative data analysis, the first step involved cleaning the dataset collected from the questionnaires, which included checking for missing values, outliers, and verifying that all responses were valid for analysis and the qualitative data were analyzed thematically based on the research objective. The study conducted descriptive and inferential statistical analysis to summarize demographic characteristics, providing insights into the overall sample through calculations of frequencies, means, and standard deviations for various items related to the use of SIMS in handling academic and administrative operations. All quantitative analyses utilized SPSS version 20 as statistical software, which ensured accurate computations and interpretations.

3.0 RESULTS AND DISCUSSION

3.1 Demographic Characteristics of the Respondents

The researcher collected various relevant data, including the age and sex of respondents. These were very important because of their direct link with the topic under investigation. The importance of such demographic data was to find out the competency of third-year Bachelor students on the use of the Student Information Management System (SIMS).4.2 Age of the Respondents. Table 1 below indicates the age of participants. The study area was characterized by different age groups, such as youth, mid-adult, and adult age. Findings indicate that the majority of participants had an age range between 21-30; this accounted 71.9%4.3 genders of the Respondents. The provision of social services depends on the people who work in a particular organization these include both male and female. Findings in Table 1 below indicate

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female participants were 54% while male participants were 45%. These findings meant that there was a gender-balanced involvement of participants in this study.

Table 1: Demographic Characteristics of the Participants

Age	Frequency	Percent
21-30	166	71.9
31-40	48	20.8
41-50	14	6.1
51-60	1	.4
Above 60	2	.9
Total	231	100
Gender	Frequency	Percent
Male	106	45.9
Female	125	54.1
Total	231	100

4.2 Participants' Programmes Under Study

Table 2 below shows the third-year students from different programmes involved in this. As indicated below, 36.4% indicate that the majority of participants of this study were students studying Bachelor of Education. The third year

participants from these bachelor's programs were selected to represent other programs to give their three years’ experience on using the Students Information Management System (SIMS) for their academic and administrative records management.

Table 2: Participants Programmer Under Study Students Studying Programmes

Types of Participants	Frequency	Percent
Bachelor of Education	84	36.4
Bachelor of Law	33	14.3
Bachelor of Library, Records and Information Management (BLRIM)	30	13
Bachelor of Business Administration(BBA)	27	11.7
Bachelor of Science in Computer Science (BCS)	22	9.5
Bachelor of Psychology	9	3.9
Total	231	100

3.2 Academic and Administrative Functions of Students Information Management Systems

3.2.1 Users of Information Management Systems

Findings from the mean score values from Table 3 below indicate the stakeholders who uses Students Information Management Systems (SIMS) as follows; Students (M = 1.52, SD = 0.89), Loan Officer (M = 1.58, SD = 0.88), Accountant Officers (M=1.5411, SD=-0.93), Dean and Heads of Departments (M = 1.51, SD = 0.72), Academic staff (M = 1.52, SD = 0.81), Admission officers (M = 1.62, SD = 0.91) and Examination officers (M = 1.63, SD = 0.89). These findings indicate low mean values, which suggest that the majority agreed that SIMS serves multiple functions in the institution.

Through the interview was reported that;

“Students Information Systems Management plays multiple functions for

the purpose of ensuring the university's programmes run smoothly. Students use SIMS to register courses, retrieve control numbers for paying fees, and access different types of records such as exam numbers to use in doing exams. Students are able to view their examination results. The loan officers use SIMS to track students’ loan distribution status. The accounting officers are able to view the status of students’ fee payments, while HoDs use SIMS to configure courses to be taught, allocate courses to teaching staff, approve applications for those who postpone studies, and download different reports, including results summaries of individual courses and the whole results of

the programme. The teaching staff uses SIMS in uploading of student’s examination records such as continuous assessment (CA) and final University Examination results. Also, teaching staff are able to download reports of the courses they teach. The admission officers use SIMS to register students’ records at every semester to help to show the status of the number of enrolled students in the university. The examination officers use SIMS to track students’ records from different angles, such as general performance, including those who pass and those failed. Those students who fail have options to sit for supplementary examinations, and some may carry courses; examination officers are responsible for monitoring all such records. Examination officers can print students’ partial results for a semester, or several semesters’’

3.2.2 Familiarity in Using Students Information Management Systems (SIMS)

Findings in Table 3 below show the mean score values on familiarity in using SIMS. The mean score value recorded was low at 1.40 (SD=0.6), indicating that respondents were generally aware of the use of SIMS. Also, the average mean for SIMS was 1.91 (SD=2.44); the findings show that most respondents use student information management systems. The respondents included students who were shown to be familiar with using SIMS to access different records. The respondents from the Education Department consisting the majority of participants (n=214), were more familiar with the use of SIMS, while other participants from BBA and Sociology showed lower score values that meant a relatively lower level of familiarity in using SIMS. These findings are relevant to the prior study by Guerrero, & Sierra (2018) who revealed that 43% of users of the information management systems indicated they were familiar with the administrative and financial module of the information management systems.

3.2.3 Academic Records Management Functions

Table 3 below participants showed the functions of SIMS in academic records management. The findings in overall management of student’s examination records show lower mean score values as follows: the systems manages students examination results (M = 1.45, SD = 0.77), Retrieval and sharing of examination results (M = 1.78, SD = 0.94), Allow Uploading results (M = 1.75, SD = 0.99, Allows course allocation to Academic Staff (M=1.58, SD=0.75) and allow Entry of Programme course records (M = 1.13, SD = 0.34). These findings suggest that SIMS facilitate the effectiveness

in the management of examination administration in universities. The SIMS allows all programme courses to be configured so that all students studying such as courses can view them in their account; academic staffs to make data entry of exam results and ensure that such students’ academic records are managed effectively while allowing retrieval and report generation when needed. These findings are relevant with the previous study, which gave out how users perceived the use of information systems. Users admitted that the systems were very important because, through the use of the system it was possible to capture records and preserve created records (Quadri, Ujunwa, & Ukpere, 2025).

Findings from the interview showed that:

“Course coordinators have a general overview of the performance of the specific course. While the Head of the Department has a chance to view the general performance of the whole programme by viewing results for all courses taught each semester and for the whole year of the programme. This helps to get a real picture of the progress of the whole programme or of specific individual students’’

3.3 Administrative Records Management Functions

3.3.1 SIMS Facilitate Student Registration

Student Management Systems play a big role in student registration and accomplishing the admission process in the following aspects: online student registration (M = 1.39, SD = 0.60) and storage of students’ admission records (M = 1.49, SD = 0.80). These findings show low mean scores, value suggest that SIMS support online student registration activities and finally facilitates understanding of all registered students. The system stores students’ admission records permanently, suggesting widespread agreement on SIMS effectiveness of SIMS usage in facilitating online registration and the permanent preservation of academic records management, as indicated by these mean score values. These findings are related with the previous study by Aityassine (2017) findings indicated the score mean of 3.21 and a standard deviation of 1.08 these score values meant that information systems provided information which is important for decision making in organization. Furthermore, one of the previous study that was conducted in Russia higher learning institution; findings indicated that students’ information management systems were integrated to perform several functions, including students’ registration in the dormitory. The system could calculate the amount to be paid per selected room. Also, the systems were integrated with accounting, economic services, procurement of inventory and equipment, permit system (Konobevtsev, Kashtanova & Lobacheva, 2019). Moreover, these findings related to a previous study by Usman & Udensi (2013) revealed that better record-keeping in universities facilitates timely and efficient

decision-making, promotes public participation, informs better decision-making, and increases accountability of decision-makers and fast-tracks service delivery. In this study, 88 (100%) of participants agree that availability of records in universities contributes towards effective administration of the university, and consequently towards effective and efficient delivery of services to the students, lecturers and the community. The availability of appropriate records ensures orderly and efficient flow of information, enabling university officials to make proper decisions, assist in improving the way things are done; records are the base for policy making, making decisions, good in services delivery; records enable the institution to function.

3.3.2 SIMS Generate Different Types of Reports

Findings from the mean score values in Table 3 below indicate that SIMS was found to facilitate the generation of different types of student reports. As indicated by the low mean value. SIMS produces financial reports ($M = 2.06$, $SD = 1.04$), SIMS produce student transcripts ($M = 1.6$, $SD = 0.9$), and students generate University Examination Numbers ($M = 1.44$, $SD = 0.76$). Although means score results have shown relatively higher values still suggest positive perceptions. The findings imply that SIMS improves reporting efficiency and supports decision-making by the management. Finding indicates that different types of academic reports can be generated from the system. These reports are retrieved by students, teaching staff, HoD, Faculty Deans, Directors of Non-Degrees, Undergraduate, Postgraduate and top management. Each of the groups can access different reports with different coverage of students’ programmes. Kayanda (2022) revealed that an integrated information system helps in developing more reports, such as clearance information and tuition fees payment reports. These findings was shown by a mean score value of approximately 4.00. Furthermore, Kayanda (2022) revealed that through information management systems, academic staff was able to

generate different types of reports, including course results, download class attendance list, and reject students who have not completed paying tuition fees. Furthermore, the systems are able to generate quantitative reports, including the number of enrolled and graduated students for previous years. Such reports are selected based on the start year, graduation year, type of admission and type of graduation (Vieira, Seabra, & Garcés, 2025). Moreover, Aityassine (2017) findings, with arithmetic average of 3.28 and a standard deviation of 1.05 these results meant that Management Information Systems (MIS) provided periodic different reports that helped to make accurate decision-making in organization. Findings from interviews indicate;

“Academic staff can view and download results for each course taught from the results; the staff may understand students who requested special exams and those postponed for their studies for that semester. Also, the Head of Department is able to view and download summaries of all courses per programme taught per semester. Head of Department can approve those applying for postponements and special examinations and have a list of those approved. The system allows the Head of Department to generate a list of students with their registration and examination numbers. The Head of Department is able to allocate courses to academic staff so that they can enter results for students for that particular course. Also, the Head of Department can upload all courses a student aims to study on a particular programme. While a student can select the courses that he/she is studying to a particular semester”

Table 3: Academic and Administrative Functions of Students Information Management Systems (SIMS)

Users of Information Management Systems (SIMS)	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Top management offices	231	1.6537	.89999	.05921	1.5370	1.7704	1.00	5.00
ICT Managers	231	1.7056	1.02147	.06721	1.5370	1.7704	1.00	5.00
Examination officers	231	1.7056	1.02147	.06721	1.5732	1.75	1.00	5.00
Deans and Head of Departments	231	1.51	.715	.047	1.41	1.60	1.00	5.00
Academic staff	231	1.5238	.80655	.05307	1.4193	1.6284	1.00	5.00
Registrar officers	231	1.6234	.90945	.05984	1.5055	1.7413	1.00	5.00
All registered students	231	1.5238	.88862	.05847	1.4086	1.6390	1.00	5.00
Loans officers	231	1.5844	.87503	.05757	1.4710	1.6979	1.00	5.00
Accountant officers	231	1.5411	.93101	.93101	1.4204	1.6618	1.00	5.00
Awareness and Use of SIMS								
Use of SIMS	231	1.9091	2.44335	.16076	1.5923	2.2258	1.00	5.00
Familiar with SIMS	231	1.3593	.57927	.03811	1.2842	1.4344	1.00	3.00
Support Students Admission Process								
Online student registration	231	1.3896	.60049	.03951	1.3118	1.4675	1.00	5.00
Stores students admission/registration records	231	1.4892	.79598	.05237	1.3860	1.5924	1.00	5.00
Academic Records Keeping								
Entry of exams in SIMS results	231	1.7532	.98893	.06507	1.6250	1.8814	1.00	5.00
Manage student examination results	231	1.4502	.77663	.05044	1.3508	1.5843	1.00	5.00
Allow retrieval and sharing students Examination Results	231	1.7835	.94450	.06214	1.6611	1.9060	1.00	5.00
Course allocation to academic Staff	231	1.5758	.75304	.04955	1.4781	1.6734	1.00	5.00
Allow entry of all programme courses in SIMS	231	1.1299	.33689	.02217	1.0862	1.1735	1.00	2.00
Generate Different Types of Report								
Generate financial reports	231	2.0563	1.03896	.06836	1.9216	2.1910	1.00	5.00
Examination officers produce transcripts	231	1.6234	.87037	.05727	1.5105	1.7362	1.00	5.00
Students access UE exams numbers	231	1.4372	.75998	.05000	1.3387	1.5358	1.00	5.00
Users of Information Management Systems (SIMS)	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Top management offices	231	1.6537	.89999	.05921	1.5370	1.7704	1.00	5.00
ICT Managers	231	1.7056	1.02147	.06721	1.5370	1.7704	1.00	5.00
Examination officers	231	1.7056	1.02147	.06721	1.5732	1.75	1.00	5.00
Deans and Head of Departments	231	1.51	.715	.047	1.41	1.60	1.00	5.00
Academic staff	231	1.5238	.80655	.05307	1.4193	1.6284	1.00	5.00
Registrar officers	231	1.6234	.90945	.05984	1.5055	1.7413	1.00	5.00

“Explore the Effectiveness of Students’ Information Management Systems (SIMS) In Handling Academic and Administrative Operations in Higher Learning Education Institutions in Tanzania”

All registered students	231	1.5238	.88862	.05847	1.4086	1.6390	1.00	5.00
Loans officers	231	1.5844	.87503	.05757	1.4710	1.6979	1.00	5.00
Accountant officers	231	1.5411	.93101	.93101	1.4204	1.6618	1.00	5.00
Awareness and Use of SIMS								
Use of SIMS	231	1.9091	2.44335	.16076	1.5923	2.2258	1.00	5.00
Familiar with SIMS	231	1.3593	.57927	.03811	1.2842	1.4344	1.00	3.00
Support Students Admission Process								
Online student registration	231	1.3896	.60049	.03951	1.3118	1.4675	1.00	5.00
Stores students admission/registration records	231	1.4892	.79598	.05237	1.3860	1.5924	1.00	5.00
Academic Records Keeping								
Entry of exams in SIMS results	231	1.7532	.98893	.06507	1.6250	1.8814	1.00	5.00
Manage student examination results	231	1.4502	.77663	.05044	1.3508	1.5843	1.00	5.00
Allow retrieval and sharing students Examination Results	231	1.7835	.94450	.06214	1.6611	1.9060	1.00	5.00
Course allocation to academic Staff	231	1.5758	.75304	.04955	1.4781	1.6734	1.00	5.00
Allow entry of all programme courses in SIMS	231	1.1299	.33689	.02217	1.0862	1.1735	1.00	2.00
Generate Different Types of Report								
Generate financial reports	231	2.0563	1.03896	.06836	1.9216	2.1910	1.00	5.00
Examination officers produce transcripts	231	1.6234	.87037	.05727	1.5105	1.7362	1.00	5.00
Students access UE exams numbers	231	1.4372	.75998	.05000	1.3387	1.5358	1.00	5.00

4.0 CONCLUSION AND RECOMMENDATIONS

4.1 Conclusion

Based on the findings of this study, it is concluded that the Students Information Management System (SIMS) is a basic academic records management tool for all university users, including students, staff, accounting officers, students’ loan officers, admission officers, and examination officers. The findings indicate that all users were familiar with records-keeping systems. The low mean values on usefulness of the system show the strong agreement that SIMS is a good records-keeping system that allows timely access to students’ academic records. Therefore, SIMS should be protected so as to ensure that students’ confidential academic record are effectively and efficiently preserved, retrieved and shared for better decision-making and service delivery in HLIs.

4.2 Recommendations

Based on the findings and conclusion of this study, the researcher's recommendations are:

1. Higher Learning Institutions in Tanzania should put more efforts to invest in advanced modern technologies to facilitate easy university information management and retrieval to improve academic and administrative decision making.
2. The HLIs should continuously conduct training to different systems users to enhance skills and

knowledge for efficient and effective use of the systems.

3. The HLIs should strengthen ICT, especially ensuring stable internet availability to allow the system to be always accessible.
4. To ensure efficient academic and administrative functions, all SIMS users including; teaching staff, HoDs, Deans, loan officers, accountants, and admission officers, should be vigilant to ensure all students' records are uploaded and approved in the system timely based on the policies and procedures in handling students’ academic and administrative records to ensure that such records are available to all users on time for informed decision-making.
5. Plans for systems improvements should consider feedback from different systems users to avoid some challenges that may emanate in the use of the systems.
6. Systems data security measure should be strictly ensured to limit unauthorized access to the systems and hence protect sensitive students’ important information.

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