EXTENT OF IMPLEMENTATION AND EVALUATION OF STUDENT INFORMATION AND ACCOUNTING SYSTEM (SIAS) OF

SAMAR STATE UNIVERSITY

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APPROVAL SHEET

This thesis entitled "EXTENT OF IMPLEMENTATION AND EVAUATION OF STUDENT INFORMATION AND ACCOUNTING SYSTEM (SIAS) OF SAMAR STATE UNIVERSITY" has been prepared and submitted by ANNA MONICA C. PACULABA, who having passed the comprehensive examination, is hereby recommended for oral examination.

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DEDICATION

I am dedicating this humble piece of achievement to:

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To my siblings,

Dayanara, Alyanna and Almira

And to my grandparents,

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ABSTRACT

evaluate This aimed to the Samar State University's study Student Information and Accounting System (SIAS). There is no significant relationship between the level of effectiveness, and the level of user satisfaction of the Student Information and Accounting System (SIAS). This study, the researcher used descriptive - correlational design. Staff from the different departments have some experience but still need supervision with the SIAS features as the grand mean resulted 3.33. 11. Out of four hundred forty-three (443) faculty, staff, and students, one hundred eighty-seven (187) or 42.2% of them perceived that the administration conducted training, one hundred twenty (120) or 27.1% were not sure if the administration conducted training while one hundred thirty-six (136) or 30.7% perceived that the administration did not conducted training on how to manipulate/use the system. The relationship between the status of implementation of SIAS in terms of knowledge learned of SIAS features by the participants and the level of effectiveness concerning quality, information quality, and system usability system was significant. Student Information and Accounting System of Samar State University is highly effective in terms of its system quality, information quality, and system usability. Since effectiveness of Student Information and Accounting System was significant to the user satisfaction, the university authority may implement an IT policy that will ensure an efficient management and timely maintenance of the system to maximize the user satisfaction.

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Chapter 1

THE PROBLEM AND ITS SETTING

Introduction

The development of information technology has been significant to the growing number of institutions that heavily depend on the computer systems in the electronic operation of their reports (Ghani, 2012). This fast-growing development created an opportunity for an agency to invest in such areas (Sahawneh, Hayek, & Bshayreh, 2016). These investments are expected to bring increased efficiency and effectiveness, as well as better quality services to stakeholders (Semeon, Musa, & Negash, 2015).

As the product of the rapid growth of information technology, information system has been a vital element in an organization. An information system is essential in gathering data and information in an organization placed in one location. The system is usually provided a beneficial task that will replace the human as to keep it in a file as the inventory or other purposes (Hashim, 2013).

According to Makurjee (2012), Student Information System (SIS) is a central system of any university. It serves as the repository of an institution's offerings, record management of the students, billing and fees management, scheduling classes, and operational and management reporting. These functionalities are intended for the purpose of all business procedures of the student lifecycle and are necessary to the operations of the university and services presented to college students. Hence, this system is responsible to secure interest for change and upgrades.

Samar State University had utilized a Student Information System (SIS) from 2004 – 2016. SIS of SSU was a university in – house project that was developed through the combined efforts of a JAICA volunteer and IT faculty from the respective institution. The said system is web-based and designed for the automation of the enrollment processes. Along with the implementation of the system, it was found out that many problems had occurred using the SIS such as; slow and limited transaction process, limited reports generated, incompatibility on system devices integration, cannot collect payments from the newly enrolled students and unexpected logical problem arose on the operation of the subject fees which leads to conflict of the collection of fees. These reasons brought a decision to the administration to purchase a system that would address those gaps since the primary policy of the institution is to give a quality service to its stakeholders (SSU Quality Policy, BOR No. 80 series 2016).

In 2017, Samar State University acquired the Student Information and Accounting System (SIAS). SIAS is a desktop and web-based system produced by Digital Software Consultancy that offers general features for universities, colleges, and private and government schools as an integrated registrar, cashiering, budget and accounting system. As of 2018, there are already seventy - eight (78) universities and colleges which are currently utilizing the said system in the country: eleven (11) in Cagayan; six (6) in Cordillera; three (3) in Ilocos Norte; two (2) in Ilocos Sur; nine (9) in

Isabela; two (2) in La Union; one (1) in Mindoro; seven (7) in Metro Manila; one (1) in Mindoro; four (4) in Negros Occidental and Iloilo; four (4) in Nueva Viscaya; three (3) in Quirino; five (5) in Samar and Leyte; sixteen (16) in Bicol; two (2) in Palawan and; two (2) in Mindanao. SIAS generally supports accounting and enrollment processes in schools, universities and colleges that respond to the clients' needs in providing frontline services (Digital Software Consultancy, n.d.).

University system is a center of excellence for education, research and community service. As a result, student's information is more complex to managed effectively due to the existing population explosion which is a high demand for university education. Indeed, the need for correct, well timed and relevant dissemination and management of student's information is important for decision – making to be effective in any academic system (Asogwa, Abdullahi, Bello, & Suleiman, 2015).

With the increase of investment and dependence on information technology, companies have come to realize the need for the quality of information, software and systems. In today's environment, controlling quality remains difficult despite on – going effort to improve system and software development (Guimaraes, Armstrong, & Jones, 2017). The information systems usage involves a wide range of risks: from intentional to unintentional information systems misuse; from malware to human errors; etc. Most of these risks can be mitigated or even eliminated by providing an adequate level of information system usability. When the information system includes

advanced tailoring features, the main risk is to obtain an end-user tailored system which lack of usability (Suduc, Bizoi, & Filip, 2010). Therefore, evaluation of an information system in an organization is highly needed.

Thi & Adnan (2016) stated that, evaluating the effectiveness of an information system can offer an opportunity to understand the strengths and limitations of the system. It can then provide a clearer understanding and measures can be made to ensure that the system targets continue to be met. Also, this will help in the development of new systems and the costs can be justified by the benefits of using the system. On the other hand, user satisfaction is a highly personal evaluation, which is strongly influenced by individual requirements (Arshad, Azrin, & Afiqah, 2015). It generally recognized as one of the key measure to ensure that an information system is successful (Ajoye & Nwagwu, 2014).

In view of these facts, it is important that every organization that has invested such, knows the impact of the things that have been invested specifically if quality service is at stake. This was the reason why the researcher took an interest to conduct a study that evaluates the extent of implementation as well as the effectiveness and user satisfaction of Student Information and Accounting System (SIAS) of Samar State University.

Statement of the Problem

This study aimed to evaluate the Samar State University's Student Information and Accounting System (SIAS). Specifically, this study was directed with the following questions:

- 1. What are the SIAS profile in terms of:
 - 1.1 software;
 - 1.2 hardware, and
 - 1.3 feature?
 - 1.3.1 Smartcard, and
 - 1.3.2 registrar
 - 1.3.2.1 set up;
 - 1.3.2.2 class schedule/enrollment;
 - 1.3.2.3 grades, and
 - 1.3.2.4 reports
 - 1.4 discounts/scholarships;
 - 1.5 cashiering and;
 - 1.6 accounting
- 2. What is the status of implementation of SIAS in terms of:
 - 2.1 knowledge learned about SIAS feature;
 - 2.2 attendance to training, and
 - 2.3 extent of utilization?

- 3. What is the level of effectiveness of SIAS concerning:
 - 3.1 system quality;
 - 3.2 information quality, and
 - 3.3 system usability?
- 4. What is the level of user satisfaction towards the SIAS concerning:
 - 4.1 system quality;
 - 4.2 information quality, and
 - 4.3 system usability?
- 5. Is there a significant relationship between the level of effectiveness and the level of user satisfaction of SIAS?
- 6. Is there significant relationship between the status of implementation and the level of effectiveness of SIAS?
- 7. Is there significant relationship between the status of implementation and the level user satisfaction of SIAS?

Hypotheses

The following hypotheses were tested in this study:

- There is no significant relationship between the level of effectiveness, and the level of user satisfaction of the Student Information and Accounting System (SIAS).
- 2. There is no significant relationship between the status of implementation, and the level of effectiveness of the Student Information and Accounting System (SIAS).

3. There is no significant relationship between the status of implementation, and the level user satisfaction of the Student Information and Accounting System (SIAS).

Theoretical Framework

The present study is based on the Sirgy's (1984) Evaluative Congruity Theory. This theory states that satisfaction cognitive process that compares perception to referent cognition suggested to evaluate the actions. The outcome of this cognitive process will create a motivating state or an emotional state. Customer satisfaction and dissatisfaction is considered an emotional condition because it encourages customers to evaluate alternative ways of reducing existing dissatisfaction and/or achieving a state of satisfaction.

Evaluative Congruity Theory assumes that one or more cognitive congruities can determine the satisfaction of the user, for example between (1) the performance and expectations of the new product prior to its use; (2) performance of the new product after use and performance of the old product before use; (3) expected performance of the product after purchase and performance of the ideal product before purchase and; (4) product expected performance after purchase and product deserved performance after use. These differences are argued to influence customer satisfaction with a particular product. In addition, this study adopted the Expectancy Disconfirmation of Paradigm of Oliver (1977; 1980). The model means that consumers by goods and service with anticipated performance expectations. The standard against which product is assessed becomes the level of expectation. That is why the result is compared to expectations when the product or service is used. The results would be confirmed if they match the expectation. On the other hand, disconfirmation occurs where expectations and results differ. The customer is satisfied or dissatisfied because of the positive or negative differences between expectation and perception. Indeed, when the performance of the product exceeds customer's expectations and perception is satisfying. In contrast, if the customer's service performance was less than expected, it causes dissatisfaction.

As applied in this study, the information of Sirgy and Oliver's' theories are the source of the researcher to measure the user satisfaction of Student Information and Accounting System (SIAS) of Samar State University in terms of system quality, information quality and system usability. It is assumed that the effectiveness of SIAS will be measured through the end – user satisfaction.

Further, this study is anchored on the DeLone and McLean IS Success Model (2003), wherein this model enables to evaluate the success of IS at different levels system, individual and organizational. Several individual dimensions of success are incorporated into an overall model of IS success; information quality, system quality, individual impact, organizational impact, use, and user satisfaction. According to this

model, information quality deals semantic success; systems quality deals technical success; use, user satisfaction, individual impacts, and organizational impacts deals effectiveness success.

Following the concept, the present study is applying the DeLone and McLean model as a framework to measure the performance of the Student Information and Accounting System of Samar State University. The model can be used to evaluate the SIAS in the following terms: (1) effectiveness would be measured with vital characteristics of Student Information and Accounting System (SIAS) which includes: (a) system quality of the system especially that most of student information processes of the university rely on the system; (b) the quality of the information generated by the system and; (c) the system usability should correspond to its functionalities.

Conceptual Framework

Figure 1 shows the conceptual paradigm of the study. This conceptual framework was constructed based on the Student Information and Accounting System (SIAS) of Samar State University. In the first section, an overview of SIAS is described. SIAS served as the independent variable where software, hardware, features, awareness of features, attendance to training, extent of utilization, system quality, information quality, and system usability relied. The following section explore concepts that constitute building block of this model. Software, hardware, and development variables was defined in order to determine the profile of SIAS. On the other hand, one of the goals of this study was to determine the extent of implementation of SIAS. To measure

the extent of implementation of the said system, awareness of the system's feature, attendance of the faculty, staff and students to training, and extent of utilization variables was considered. Also, to test the effectiveness and how user is satisfied in using the SIAS, system quality, information quality and system usability was evaluated. Furthermore, it assessed if there is significant relationship between the status of implementation of SIAS, and the factors affecting the effectiveness and user satisfaction of the said system. Feedbacks from the respondents were raised and deliberated for the validation of the data.

The researcher assumed that the result of this study would serves as the basis of the administrators for the improvement of the implementation of Student Information and Accounting System of Samar State University.

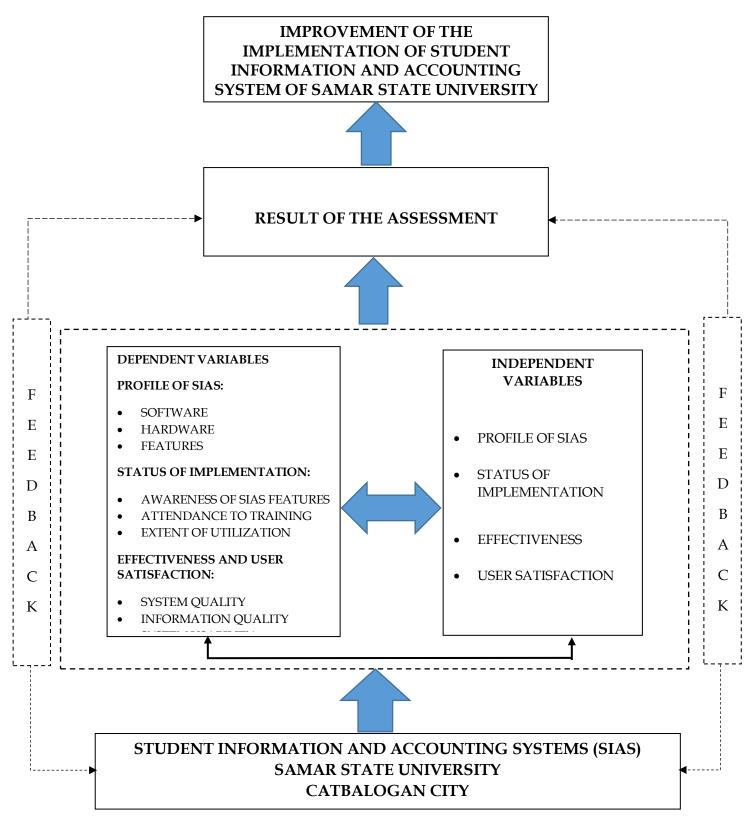


Figure 1. The Conceptual Framework of the Study

Significance of the Study

The findings of this study would be significant to the following recipients:

<u>Administrators.</u> This study is addressed to the university administrators. The results of the study are essential to them because it would serve as a basis of the administrators in making proper recommendations to improve the services of the institution using the SIAS. Also, this would guide the administrators in creating guidelines and policies in relation to the full implementation of the said system.

<u>Students</u>. The results of the study would be directly beneficial to the student. Through the recommendations of the study, it would be a big help to the students in a way that their enrollment transactions would be faster and efficient.

<u>Staff.</u> Since they are the front liners in extending services to the stakeholders, the recommendations of the study would be a big help to them in order for them to produce better results in their day to day transactions using the system.

Faculty. The results of the study would give awareness to the faculty regarding the other features of SIAS that they may possibly use in dealing with their functions in instruction, aside from inputting grades in the system.

<u>Samar State University.</u> The results, recommendations and suggestions of the study would be a big contribution to the university specifically in implementing guidelines and policies relative to the deployment of SIAS. With this, the institution would be effective in giving quality service to its stakeholders.

<u>Future Researchers.</u> This study would serve as a baseline in their future researches related to the present study.

Scope and Limitation

This study involves in evaluating the Student Information and Accounting System of Samar State University during the school year 2018 – 2019, one year after it was implemented.

The study used the descriptive - correlational research design in order to determine the extent of implementation, and evaluation along effectiveness and user satisfaction of SIAS. Staff from the different colleges in the campus, cahiers office, registrar's office, assessment office, Office of the Student Affairs and Services and Related Services (OSAS) as well as to the top management which includes the office of the Vice President for Academic Affairs, students, and faculty were the respondents of the said study.

The evaluation was limited to the Student Information, one of the features of SIAS since the Accounting System is not implemented in the university.

Definition of Terms

The following terms are given their conceptual as well as operational definitions to allow readers to understand the nature of this research.

<u>Effectiveness.</u> The degree to which something is successful in producing a desired result (Oxford, 2018). Operationally, it is the capability of the system to generate expected result that is being queried.

Information Quality. The desired feature of the system results in terms of contents and reports (DeLone & McLean, 2003). Operationally, the system gives the right information with no errors as to its displayed information.

Implementation. The process of putting a decision or plan into effect (Oxford, 2019). Operationally, this refers to the process of developing and utilization of the system.

Knowledge. It is an awareness, understanding, or information that has been obtained by experience or study (Cambridge Dictionary, 2019). Operationally, this was the ability of the participants in manipulating the features of Student Information and Accounting System.

<u>Student Information and Accounting System.</u> It is an integrated student and accounting system used in enrollment transactions and accounting services. (Digital Consultancy, n.d.). Operationally, it is the information system to be evaluated.

System Quality. The desirable feature of a system such as system flexibility, reliability, fast response, ease of use, and ease of learning (DeLone & McLean, 2003). Operationally, it is the overall performance of the system that conforms as to functionality, reliability, efficiency, maintainability, and portability.

System Usability. It refers to the ease of use of the software/system (Sagar & Saha, 2017). Operationally, it is the user- friendliness of the SIAS.

<u>User Satisfaction.</u> It is a measure of the degree to which a product or service meets the customer's expectations (TechTarget, 2018). Operationally, it is the user behavior towards the system quality, information quality and service quality.

Chapter 2

REVIEW OF RELATED LITERATURE AND STUDIES

This chapter contains detailed ideas, observations, conclusions and suggestions taken from published journals, books, web – based references which are related to the present study.

<u>Related Literature</u>

Samar State University's Student Information System (SSU-SIS) was primed around year 2003. A team composed of IT employees with the help of JAICA volunteers started conceptualizing the ICT Plan of the university. The said system started with the installation of Local Area Network (LAN), to enable sharing of computer resources like printing and internet connection. Then, in 2004, a first version of locally developed system SSU-SIS was launched to cater the demand of automating the enrollment procedure, and was later on improved and upgraded on the succeeding years.

In 2010, a structured network was installed in the University that served as the backbone to cater the increasing demand of the university in terms of connectivity and networking, this also help improve the speed of the enrollment procedure. But due to the increasing demand of reports and functionality needed from the enrollment system, the SSU-SIS was failed behind to the requirements and features needed. Thus, the ICT conducted benchmarking on the year 2016 from the different SUCs in the region (NSU, ESSU, LNU, WSSU, EVSU) and found out that among those SUCs are using SIAS successfully. Therefore, the ICT has recommended to acquire the Student Information and Accounting System (SIAS) instead of continuing upgrading the outdated SSU-SIS. However, since SIAS is a closed and commercially developed system, all of its design and development structures are not available to be seen.

The study of Maggay (2017) aimed to develop a fully customized Student Information and Accounting System of Cagayan State University – Lasam Campus to facilitate enrollment and accounting processes. SIAS of CSU - LC operates in multiple computer units over the network having a centralized database for data storage and retrieval. It has different integrated features that support the needs of the frontline service providers and the clients. The overall functionality of the SIAS increased the efficiency of the frontline service providers since most of the processes are computerized and automated. The result of the survey along with quality of services, accuracy of records and reports, and timeliness reveals that SIAS is significant and effective instrument in the delivery of frontline services.

Information system plays a vital role in evolving organizations in the establishments of reliable databases. It has to be updated, easy to use and must assist the flow and computation of the information to achieve its goals and to improve productivity and effectiveness (Al-Hudhaif, 2010). The implementation of information technology sets an impact on the effectiveness of systems operations and efficiency of an organization's performance. Therefore, exploring its operational processes is important (Wiechetek, 2012).

According to DeLone and McLean (2003) research framework, IS effectiveness is not easy to measure from a single dimension. However, most of the researchers used the following subcontracts: system quality, information quality, and system usability as a discrete dimension to capture the key informants' perception on IS effectiveness (Gorla, Somers, & Wong, 2010). Researchers have been recognized the significance of information quality, system quality, and system success as critical components in developing a competitive advantage. Along with continued research into organizational effectiveness and user satisfaction, new scales and methods are needed (DeLone & McLean, 2003).

Users' satisfaction is the representation of the users' cognitive evaluation of the entire user experience from their interaction with the information system, and technology overtime (Au, Ngai, & Cheng, 2008). Many researchers have identified that end-user satisfaction is a critical factor in the success of an information system (Sharabati, Sulaiman, & Salleh, 2015). Au, Ngai, & Cheng (2008), described user satisfaction as a summary of experiences through their interaction with technology and represent the cognitive assessment of users' overall experience using an information system. In other words, satisfaction is considered to be the consumer's response to fulfillment, i.e. a view that a product service or the product service itself delivers a satisfying performance. In addition, a range of favorable and unfavorable responses have emerged from development in conduct sciences, which give rise to different interpretations of satisfaction in advertising research. Therefore, researchers have gone away overtime from the literal meaning of satisfaction to consumer experience (Oliver, 2010).

According to Kassim, Jailani, Hairuddin, & Zamzuri (2012), assessing users' satisfaction and its factor is an essential instrument to measure the value and effectiveness of the information system investment. This concerns to net benefit in both individual and institutional level (Petter, DeLone, & McLean, 2008). Also, user satisfaction is very important in order to increase the productivity of the task significantly, and if it is not resolved, it can lead to a problem (Norfazlina, Sharidatul Akma, Nurul Adrina, & Noorizan, 2016). Hence, factors of satisfaction have a major impact on productivity, this is because most employees work to meet their needs, leading to significant increase in productivity in the workplace (Halkos & Bousinakis, 2010). On the other hand, the desired features of an information system include system quality, i. e., ease of use, flexibility of the system, reliability of the system, easy to learn, intuitiveness, advance design, and response time (Petter, DeLone, & McLean, 2008). Ease of use is how users perceive that the information system requires less effort to use. Also, with the flexible information system, the system can be customized on the basis of internal and external changes. The lower the flexibility of the system, the lower the satisfaction which then affects the participation of the user. Moreover, reliability is an important quality indicator of IS. It is the degree to which users trust the IS. Furthermore, easy to learn is essential quality indicators of IS. Natural learning is the extent to which users have perceived the system to be easy to learn. Intuitiveness, advance design and response time as well as system features are essential indicators of IS quality. The response time is the duration of a system's response to an instruction. Longer system response time can cause users to be less satisfied (Al-Mamary, Shamsuddin, & Aziati, 2014).

In addition, information quality is defined by Gustavsson & Jonsson (2008) as the 'fitness for use' concept. Petter et al. (2008), explained information quality as the desirable feature of the system outputs. It includes; relevance, comprehensibility, accuracy, comprehensiveness, currency, timeliness and usability. Furthermore, Arazy et al. (2011) identified the quality of information criteria through accuracy, completeness, clarity, speed, ease, integration, adequacy, objectivity and impartiality, measurability and confidentiality and the integrity of the information concerned. Hence, the information systems should display results that are relevant to the purpose for which it is required, easy to understand, accurate or inferior to error, concise, complete or contain all the information, currency, rapid availability and time to meet information requirements and usability.

International Organization for Standardization (ISO) 9241-11 defines usability in three aspects: effectiveness, efficiency and user satisfaction rating of a product in a particular environment for a specific purpose by a specific user. Effectiveness defines as to the accuracy and completeness of a product's goal; efficiency refers to the effort required to complete a task for a user; and satisfaction relates to a product's comfort and acceptability (Mifsud, 2015). As added by Kom & Kom (2018), usability is one factor in determining the quality of an information system. The level of usability refers to the comfort of use of such software or information system. The higher the usability value, the greater the advantages of the information system for the benefit of users. Horsky et al. (2010) stated that poor usability of information systems delays users' adoption and limits possible improvements in the efficiency and security of services. Therefore, repeated usability assessments are essential to the system design process.

Related Studies

The following studies are cited, in terms of the used variables, nature of the study, and research methodologies which are related with the present study.

A study of Asogwa et al. (2015) aimed to highlight the potential benefits of Student Information Management System (SIMS), the current state of SIMS utilization in Nigerian Universities, the challenges face by the institutions in integrating SIMS for excellent delivery and strategies for proper SIMS integration by Nigerian Universities for the effective and efficient management of Nigerian educational system in a technological age. The study concludes that academic institutions have a full pledge responsibility in providing an effective and qualitative education for societal well - being and this could effectively be achieved by embracing newer technologies that are multifaceted in discharging most of the activities of such institutions. As a result, availability and adequate utilization of newer technologies in the management of student's information will contribute significantly to enhancing institutional effectiveness, university governance and teaching in this era of overpopulation in the universities. The study also observes that the relationship between the digital competence of the teachers and institutional efficiency in technological age is significant.

This study of Asogwa et al. (2015) is similar to the present study since both aimed to evaluate the potential and the current situation of utilization of its university's Student Information System. However, they differ on the respondents were the the researcher used teachers as their respondents while the present study used faculty, staff, and students as the respondents of the study.

In the study of Secreto & Pamulaklakin (2015) entitled Learners' Satisfaction Level with Online Student Portal as a Support System in an Open and Distance eLearning Environment (ODEL) analyzed how the students are satisfied with the functionality, efficiency, look, ease of use and security of the website. The study assessed the degree of satisfaction of the students who used the said system. Participants indicated that the accessibility, availability, content and appearance of the portal are highly satisfied. Students evaluated the portal on the basis of their experience in using it during enrollment, viewing of grades, requesting for documents, and the like.

A study of Sherifi (2015) entitled Impact of Information Systems in Satisfying Students of the University: Case study from Epoka University analyzed the students' perceptions on the Student Affairs Information System (SAIS) used at Epoka University. The study focused on the dimensions of the student satisfaction on the physical evidence of the service, assurance, responsiveness, reliability, and empathy towards SAIS. It concludes that students are satisfied by the SAIS services and that more qualitative services offered to the students will generate better results and more satisfaction to them.

De Guzman et al. (2017) studied a research entitled Users' Perspective on the Utilization of Student Information Management System, it is intended to determine the level of user perspective on the use of the student information management system in terms of accessibility, convenience, user interface, timeliness, reliability, and privacy and security measures; and the use of the student information management system problems. The study used a descriptive survey method to gather the needed data. The result shows that the students are highly satisfied with the said SIMS.

These studies have relevance to the present study because both studies aimed to determine the satisfaction level of the students towards information's system overall appearance, easiness of use, functionality, efficiency of service and reliability. However, the present study aimed to determine not only the satisfaction level of the students but also the satisfaction level of the faculty, staff and students towards SIAS. In addition, the study of De Guzman et al. (2017) used descriptive survey as the method in conducting of their study while the present study use descriptive – correlational method to evaluate the effectiveness, user satisfaction, and extent of implementation of the SIAS.

The study of Gürkut & Nat (2017) entitled Important Factors Affecting Student Information System Quality and Satisfaction aimed to understand the impact of System Quality, Information Quality and Information Presentation on Student Information System satisfaction of academic and administrative staff. According to the study, only Information Quality has a direct effect on satisfaction. Then the impact of decision-making as a mediator factor on system satisfaction is measured. The results revealed that System Quality and Information Quality has a significant indirect effect whereas Information Presentation does not have a direct or indirect impact on system satisfaction.

The study of Gürkut & Nat (2017) presented the importance to the study since both directed to determine satisfaction level of the academic staff to the system quality and information quality of the Student Information System. However, they differ in one of the objectives of the study wherein Gürkut & Nat (2017) study includes information presentation as one of the variables in determining the satisfaction level of the academic staff while the present study used system usability as another variable to determine the user satisfaction level of SIAS not only to the academic staff but also to the faculty and students.

Further, the study of Rusli et al. (2013) entitled Usability Analysis of Students Information System in a Public University aimed to discover factors leading to usability problem found in the students' information system. They assigned the usability criteria that affect user's impressions; useful information, timely access, interface design, and error recovery. The study found that several features that are commonly encountered in this system affect the interaction and satisfaction of users such as level and relevance of information and usability, ease of use and feature.

The study of Rusli et al. (2013) has relevance in the current study because both system usability as one of the variable to measure in evaluation of the Student Information System. However, the study differs in a way that the present study used system usability as one of the variable in determining the level of effectiveness and user satisfaction of the SIAS while Rusli et al. (2013) study directed to determine factors that leads to system usability problem.

Another study conducted by Kom & Kom (2018) entitled Web-based Usability Measurement for Student Grading Information System, dealt with the way in which the use of the student's grade processing application in Atisa Dipamkara high school was measured. Usability is used as one factor in measuring the quality of the information system. The result of the study shows that the usability measurement has the value of 'feasibility' and evidence that the usability variable has a significant influence between usefulness, ease to use and ease to learn variables to user satisfaction variable.

The study of Kom and Kom (2018) shows significance to the present study because both study used usability as one of the variables in their study. However, Kom and Kom (2018) utilized usability to measure the quality of the information system while the present study used usability to measure the effectiveness and user satisfaction of SIAS.

In the study of Gorla et al. (2010), it modeled the relationship between quality and organizational impact of an information systems' (IS). The study hypothesized larger organizational impact in situations where the quality of system, information quality and quality

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of service are high. The result shows that IS service quality is the most influential variable, thus, highlighting the importance of IS service quality for organizational performance is essential.

This study of Gorla et al. (2010) is parallel to the present study since both study used information quality and system quality as their variables in their study. However, the study of Gorla et al. (2010) aimed to hypothesized the system quality, information quality and service quality between organizational impact of an information system while the present study directed to hypothesized the relationship of the level of effectiveness between the user satisfaction of SIAS. Also, the present study hypothesized the relationship of the status of implementation and the level of effectiveness and user satisfaction of the said system.

Further, the study of Hakimpoor & Khairabadi (2018) entitled Management Information Systems, Conceptual Dimensions of Information Quality and Quality of Managerial Decisions: Modelling Artificial Neural Networks examined the impact on the quality of management decisions in public organizations in Iran and conceptual dimensions of information quality using the Management Information System (MIS). With the use of the Artificial Neural Networks (ANN) analysis, the results show that when the conceptual dimensions of information quality and MIS are merged it has a stronger and positive effect on quality of managerial decisions.

This study of Hakimpoor & Khairabadi (2018) found to have a relevance to the present study because both studies used information quality as one of the variables of their study. However, the two studies differ in a way that Hakimpoor & Khairabadi's (2018) study used only information quality while the present study used system quality, information quality, and system usability to assess the effectiveness and user satisfaction of SIAS. Baraka & EL-Gamily, (2013) study entitled Assessing call centers' success: A validation of the DeLone and Mclean model for information system, concerned the assessment of call centers' success. It used DeLone and McLean model to validate information system. The study applied the six success dimensions of the successful model of DeLone and McLean: system quality, information quality, quality of service, use, user satisfaction, and organizational impact to measure call center's performance.

This study of Baraka & EL-Gamily (2013) has similarity as well to the present study, as it adopts a theoretical framework for DeLone and McLean IS success model. However, they vary in a way that Baraka & EL-Gamily' study applied all the dimensions in the DeLone and McLean IS success model while the present study did not apply all the dimensions of the said IS success model. It will only focus on the evaluation of efficiency and user satisfaction of SIAS of Samar State University along with system quality, quality of information and system usability.

According to the study of Al-Mamary et al. (2014) entitled The Relationship between System Quality, Information Quality, and Organizational Performance, aimed to explain the concept of information quality, system quality, and organizational performance, and the relationship between system quality, information quality and organizational performance. The study hypothesized that the system quality, information quality and organizational performance had a positive relationship. It concludes that the system quality has an important impact on system acceptance. It has also an impact on the effectiveness and efficiency of organizational performance in an organization. Hence, easy to use and easy to learn system produces good information quality. Furthermore, quality of information has a significant impact and improve organizational performance on the acceptance of information systems. Moreover, the study Al-Mamary et al. (2014) has shown to have relevance to the present study because both study used system quality and information quality as determinants in their study. However, they vary in some of the determinants of their study. The present study did not only use the system quality and information quality as determinants but also system usability. In addition, the study of Al-Mamary et al. (2014) hypothesized the relationship between the informational quality, system quality, and organizational performance while the present study hypothesized the extent of implementation of SIAS and the level of effectiveness and the satisfaction of the user towards SIAS.

The aforementioned studies discussed thoroughly about assessing the impact of an information system in some factors such as; user's satisfaction, system quality, and usability. With these, the researcher was able to incorporate the concepts of the said studies only that the present study differs wherein it focused on assessing the effectiveness and user satisfaction of Student Information and Accounting System (SIAS) of Samar State University. On the other hand, the present study hypothesized between the relationship between the status of implementation of SIAS, and level of effectiveness and user satisfaction. Also, the present study used descriptive - correlational survey methodology to collect the data needed to come up a result.

Chapter 3

METHODOLOGY

This chapter discusses the methodology employed by the researcher in this study. Among the items are discussed in detail are research design, instrumentation and its validation, sampling procedures, data gathering procedure and the statistical treatment of data.

Research Design

In this study, the researcher used descriptive - correlational design. Descriptive - correlational research design was used in gathering data that concerns the present situation to determine the effectiveness and user satisfaction of Student Information and Accounting System of Samar State University, as well as the significant relationship between the status of implementation and the factors affecting the effectiveness and user satisfaction of the said system.

Instrumentation

The instruments that were used by the researcher in gathering the necessary data are the following:

Questionnaire. The questionnaire for the respondents contained with six parts. It was filled out by the identified faculty, staff, students of Samar State University. The parts of the questionnaire are as follows:

Part I, contained the profile of the respondents. This was composed of Department/Office of the respondents for the purpose of validating response for the remaining parts of the questionnaire.

Part II, contained checklist of the features of Student Information and Accounting System for the evaluation of the knowledge learned of the user about the said system's features. Since some features of the system are restricted to the other users, there were different questions under this part for the staff from different colleges and registrar, faculty, student, assessment office, accounting office, Office of the Student Affairs and Services (OSAS), and cashier's office.

Part III, contained questions to identify the attendance of the respondents to the training conducted on how to use the SIAS.

To determine the effectiveness and user satisfaction along system quality, system usability and information quality of SIAS, Part IV and V of the questionnaire contained variables with the following five – point scale: for the evaluation of the effectiveness; 5 – Extremely Effective (EE), 4 – Highly Effective (HE), 3 – Moderately Effective (ME), 2 – Slightly Effective (SE), and 1 – Not Effective (NE) while to determine the user satisfaction the following five – point scale will be used: 5 – Extremely Satisfied (ES), 4 – Highly Satisfied (HS), 3 – Moderately Satisfied (MS), 2 – Slightly Satisfied (HS), 3 – Moderately Satisfied (MS), 2 – Slightly Satisfied (SS), and 1 – Not Satisfied (NS). In this part, each item is comprehensively discussed through the use of a rubrics. Lastly, Part VI contained an area for the recommendations/suggestions of the user.

Validation of Instrument

The survey questionnaire used to evaluate the status of implementation, effectiveness and user satisfaction of SIAS as to its system quality, system usability and information quality was based on Ramezan (2009) and Ajoye (2014). Since some of the questions in the survey questionnaire were made by the researcher, required activities were undertaken.

The researcher read related studies in preparation of the questionnaire and consulted five (5) IT faculty with at least three (3) years in service for the expert validation of the said instrument. Comments and suggestions by the experts were considered and integrated into the questionnaire in its final draft.

Then, the test instrument was subjected to reliability test using the Inter – rater. Inter – rater represents the extent to which different reviewers assign the same score to a particular variable on a rubric (Chong & Romkey, 2016). According to Jonsson and Svingby (2007), two raters who are under restrained conditions is enough to produce acceptable levels of inter-rater agreement. The said instrument was pilot tested and resulted 0.90 inter-rater agreement. According to Cohen (1960) and Fleiss (1971), for a test instrument to be considered standardized and a good instrument, inter-rater agreement must range from 0.81-1.00. Thus, this instrument was reliable.

Sampling Procedure

There were 443 identified users of SIAS that served as the participants of the study. Out of 443 faculty, there were 73 faculty, 38 staff, and 332 were first year college

students. In order to yield more reliable result, total enumeration sampling was used to get the number of respondents for staff, while purposive sampling for faculty and students.

The following tables show the sampling frame of the study:

Name of Department/Offices	Number of Respondents
College of Arts and Sciences	31
College of Engineering	4
College of Nursing and Health Sciences	11
College of Education	17
College of Industrial Technology	5
CASPED	5
Total No. Respondents	73

Table 1. Sampling Frame of the Faculty Respondents

Name of Department/Offices	Number of
Name of Departmeny Offices	Respondents
College of Arts and Sciences	2
College of Engineering	2
College of Nursing and Health Sciences	1
College of Education	3
College of Industrial Technology	3
College of Graduate Studies	4
Registrar's Office	10
Assessment Office	1
Cashier's Office	5
Office of the Vice President for Academic	1
Affairs	1
Office of Student Affairs and Services	6
Total No. Respondents	38

Table 2. Sampling Frame of the Staff Respondents

Name of Department/Offices	Number of Respondents
College of Arts and Sciences	84
College of Engineering	38
College of Nursing and Health Sciences	38
College of Education	65
College of Industrial Technology	107
Total No. Respondents	332

Table 3. Sampling Frame of the Student Respondents

Data Gathering Procedure

The researcher conducted an interview to the faculty, staff and students of the different colleges and selected offices of the university who are the users of SIAS. The data gathered from the interview was a big help to the researcher in determining the variables of the study. On the other hand, to fully define the variables of the study, the researcher also conducted an observation on the actual transactions of the system. Afterwards, the researcher sought permission from the University President of Samar State University to conduct this study. Upon approval, the researcher personally visited the concerned office(s) for the purpose of gathering data. Each participant was given a consent form which includes an agreement that they conform to whatever settlement enclosed. Survey questionnaire was given to the faculty, staff and students as the identified respondents of the study. In addition, the researcher asked an assistance coming from office of the dean of the different colleges for the fast distribution of the questionnaire. Then, the answered questionnaires by the respondents were collected by the researcher for the interpretation of the gathered data.

Statistical Treatment of Data

The researcher used quantitative research approach in analyzing and interpreting the data. It is quantitative where it structures data collection instrument and produce results that generalize, compare and summarize the status of implementation, level of effectiveness and user satisfaction of the SIAS towards system quality, information quality and system usability.

Statistical tools that were used to analyze the data gathered are the following:

<u>Frequency Count.</u> This statistical tool was used to determine the frequency of the number of responses on the suggestions given by the respondents that are doable and related to the improvement of the system.

<u>Standard Deviation.</u> This was used to determine the variability of responses of the respondents along extent of implementation, effectiveness and user satisfaction of the system.

<u>Weighted Average.</u> This was used to determine the extent of implementation of the SIAS, level of effectiveness and the level of satisfaction of the respondents towards the system.

<u>**Pearson R.</u>** This statistical tool was used to determine the correlation between the level of effectiveness of the system and the factors affecting the user satisfaction.</u>

Ethical Consideration

This study followed ethical standards for the respondents ' safety and security. The following ethical guidelines were implemented:

Respect for People's Right and Dignity. The researcher provided sufficient information and assurance that the respondents of the study were informed about the implications of their participation and reached a fully informed, considered and free decision on whether or not to participate without exerting any pressure. The following were deliberated to the respondents of the study: (1) the purpose and objectives of the study (2) period and extent of involvement; (3) voluntary participation; (4) right to withdraw from his/her participation in the study if he/she wished to do so; (5) secrecy and privacy; (6) mutual responsibility; (7) contact person; and (8) assurance that they would be informed whatever the result of the study.

Justice. The researcher was responsible for the fair treatment of the respondents. Also, when the respondents are put in a situation of inconvenience and considerable discomfort, the researcher was reasonable to compensate the respondents for the inconveniences they experienced due to their involvement in the research project. However, the researcher ensured that the compensation would not put the respondents to the risk of financial gain.

<u>**Truthfulness.</u>** The researcher made sure that there is no dishonesty in the conduct of the study at any phase.</u>

Integrity. The researcher took the interpretation of the data according to the standard way of analysis. Also, the researcher consulted a statistician to verify the accuracy of the result from the assessment that was conducted.

Privacy and Confidentiality. The researcher ensured that the personal data of the respondents are kept confidential and private. Respondents guarantee that their identity would not be disclosed, from the collection of data, managing and storage processes would protect anonymity such as: (1) respondents did not ask to disclose their names on the questionnaire; (2) data collected from the respondents were kept in private wherein only the researcher can access and; (3) answered questionnaires were disposed through shredding.

Chapter 4

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This section presents the result and discussion of the study. This chapter is divided into profile of SIAS, status of implementation, level of effectiveness and level of user satisfaction, relationship between the level of effectiveness and the factors affecting the user satisfaction of SIAS, relationship between the status of implementation and the factors affecting the level of effectiveness of SIAS, and relationship between the status of implementation and the factors affecting the user satisfaction of SIAS.

Profile of Student Information and Accounting System

The following are the profile of SIAS in terms of its software, hardware and features:

Software

The programming language used in the development of SIAS is C#.NET. C#.NET is a simple, modern, object – oriented, and type – safe programming language and a free, cross-platform, open source developer platform for building many different types of applications. For its database, it utilized MySQL/MariaDB. This database server is one of the most popular database servers in the world that was made by the original developers of MySQL and guaranteed to stay open source. Notable users include Wikipedia, WordPress.com and Google. Using this kind of technology guarantees that the system would be more robust and fail-proof, and is supported to last since it is supported by big companies.

Hardware

Student Information and Accounting System of Samar State University is not network and resource hogging application, thus, it only requires a minimum of computer and network to operate. In spite of the low requirements of the system in terms of its hardware, still the university had structured cabling installed using category 6 cables as the main backbone of the system. With this, the university is more than capable of running the system including other network operation within the university.

Network Infrastructure

As shown in figure 1, the blue lines represent the network backbone connectivity of the university. SIAS is installed and located in the Research Office Building which is shown with data symbol, and from then, each colleges building including the administration building are interconnected in the backbone of the network as represented by the square boxes that serves as the main hub of the network connectivity. Further, those computers in each department and offices are connected to the building hub to enable the user to connect to the university's backbone network.

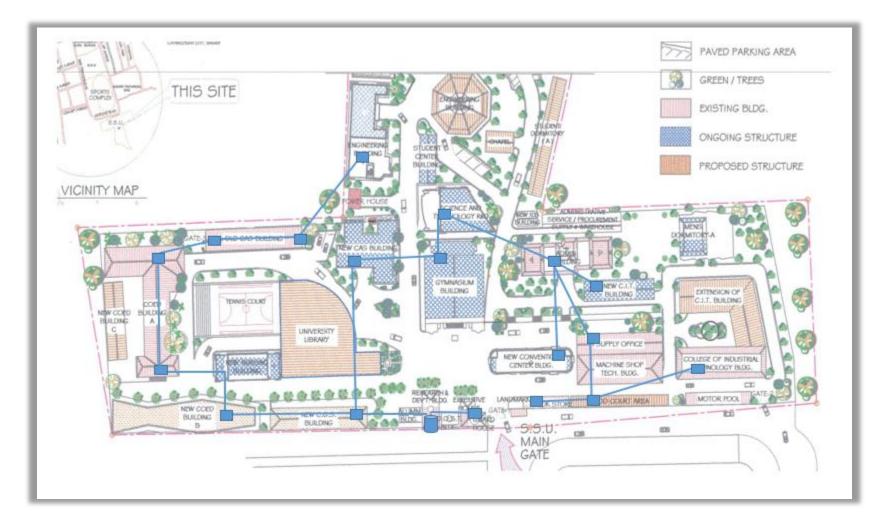


Figure 2. SIAS Network Infrastructure

Features

Student Information and Accounting System of Samar State University is a fully integrated registrar, cashiering, budget and accounting software. The said system can utilize TCP/IP LAN Server or HTTP Internet/Cloud Server, 100% upgradable to SIAS Online 3.x without migration. In addition, updates of SIAS can be uploaded to the server from one workstation (or server itself), workstations automatically detects, downloads and installs the latest version from server, user passwords are stored in at least Hash-256bit standard algorithm, encrypted data are stored in at least AES-256-bit standard algorithm. Further, all reports that the SIAS generated can be exported to MS Excel 5.0, 2003 and 2007 formats, can be previewed on screen before printing, and all custom reports are stored in the database. Moreover, the said system has the following specific features:

Table 1

	Integrated information kiosk system for viewing grades, accounts & queue using smartcards IDs Integrated online real-time cloud queuing system using smartcards IDs
Features of Smartcard Information Kiosk	Smartcard or biometric touch screen wall-mounted information kiosk
	Integrated teller/counter module using smartcard IDs for more efficient
	Updates on queue status are real-time in all information kiosks
	Can add/delete/enable/disable offices which is reflected in kiosks in real-time.
	Caters to all offices such Registrar, Cashier, Enrollment, Guidance, Scholarship,
	Promissory, Deans, etc.
	User-defined credentials/admission documents
Features for Registrar	Monitoring of submission of credentials/admission documents
	Summary report on submitted/unsubmitted documents required for
	graduation
A. Set – up	User-defined periods on code, description, enrollment, adding/dropping & validation

Specific Features of Student Information and Accounting System

	User-defined grading terms for any period like Prelim, Midterm, etc.
	User-defined table for the transmutation of grades from other grading systems like SUC (1.0, 3.0, etc), Percentile (75, 98, etc), Ateneo (A+,B-, etc), La Salle (4.0, 3.0, etc), and others
	User-defined courses and form-9 categorization per course
	User-defined subjects on code, course no., description, units, tuition, lec, lab, hours
	Facility to easily arrange the subjects globally based on classification
	Pre-requisites, co-requisites, equivalence can be defined on each subject
	Easy access to shared/synchronized subjects among all courses and curricula
	User-defined curricula with support effectivity year
	Change of Code/Name Authorization Protection
	Entry of class schedule which automatically detects conflicts
	Class schedule supports multiple rooms and/or teachers per class
	Facility to copy schedules of one class or whole period to another period
	Automatic generation of minimal class codes for fast encoding of enrollment
	Facility to limit, freeze, unfreeze or dissolve enrollment in any section or class
	Generates rooms assignment (tabular) and utilization (color coded) reports
	Creation of student accounts with automatic permanent or temporary ID
	Facility to merge a duplicate student account (including all its transactions) into the original account so that the duplicate account can then be deleted.
B. Class Schedule/	Integrated smartcard reader for student identification (no need to type student ID)
Enrollment	Facility to import all student ID pictures stored in a folder
	Enrollment: Identification for New, Freshman, Returnee, Shiftee, Graduating, Transferee, Cross Enrollee, Foreigner, etc.
	Encoding of enrolled subjects by block section for regular students
	Use class codes (separated by space entered in one line only) for irregular students
	Automatically finds available schedules for the problematic subjects of student
	Automatically computes and prints student assessment after encoding
	Adding and dropping of subjects with automatic re-assessment
	Transfer students from one class to another or subjects of student to another section
	Saves student performance, absences and violations
	Viewing and printing of Student Profile
	Reports on absences from student-attendance monitoring system.
	Entry of grades by teacher or registrar through network
C. Grades	Entry of grades by teacher or registrar through network Controlled editing of grades through authorization and privilege

Supports standard grading systems of SUCs, Ateneo, La Salle, Percentile, etc. Can input grades in all terms such as Prelim, Midterm & Finals with option to automatically compute the Final Grade Entry of external grades (transferees) using original codes, descriptions, grades and grading system Generates periodic average for the determination of academic achievers Generates general weighted average (GWA) from any period to any period Monitoring and replacement of incomplete (INC) to a failed grade value Monitoring of teacher's progress in grade entry (finished/unfinished) with pass/fail statistics for management action Automatic crediting of internal and equivalent subjects System assisted crediting of external subjects (from other schools) Generates report on encoded grades that were not enrolled by students Generates report on candidates for graduation with summary on unfinished subjects and lacking documents. Prints diploma of all graduating students on the fly Prints all enrollment reports like masterlist, enrollment list, etc. Masterlist provides additional info on units (lec/lab) with filter options by level, department, course, year, gender, classifications (new, old, freshmen, returnee, shifter, regular, graduating, cross enrollee, transfee, etc.) Generates official class list or control sheet by department, teacher or subject Report on all enrolled students on a particular subject(s) Generates instructors loads and teacher's programs with		Export and import grades encoded in MS Excel by teacher or department
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D. Reports Generates D. Reports Generates Statistical reports on enrollment by subject, credits earned, lecture/laboratory units and head count (FTE)		Generates report on encoded grades that were not enrolled by students
subjects and lacking documents.Prints diploma of all graduating students on the flyPrints all enrollment reports like masterlist, enrollment list, etc.Masterlist provides additional info on units (lec/lab) with filter options by level, department, course, year, gender, classifications (new, old, freshmen, returnee, shifter, regular, graduating, cross enrollee, transfee, etc.)Generates official class list or control sheet by department, teacher or subjectReport on all enrolled students on a particular subject(s)Generates instructors loads and teacher's programs with info on class sizesReport on laboratory/professional subjects with info on related chargesReal-time statistics on enrollment data for management monitoringPrints general schedule with filter on open, closed, newly open, dissolved classesStatistical reports on enrollment by subject, credits earned, lecture/laboratory units and head count (FTE)Summary reports on reserved/confirmed, old/new and gender all can be displayed by course, department with year level in columns		
Prints all enrollment reports like masterlist, enrollment list, etc.Masterlist provides additional info on units (lec/lab) with filter options by level, department, course, year, gender, classifications (new, old, freshmen, returnee, shifter, regular, graduating, cross enrollee, transfee, etc.)Generates official class list or control sheet by department, teacher or subjectReport on all enrolled students on a particular subject(s)Generates instructors loads and teacher's programs with info on class sizesReport on laboratory/professional subjects with info on related chargesReal-time statistics on enrollment data for management monitoringPrints general schedule with filter on open, closed, newly open, dissolved classesStatistical reports on enrollment by subject, credits earned, lecture/laboratory units and head count (FTE)Summary reports on reserved/confirmed, old/new and gender all can be displayed by course, department with year level in columns		
Masterlist provides additional info on units (lec/lab) with filter options by level, department, course, year, gender, classifications (new, old, freshmen, returnee, shifter, regular, graduating, cross enrollee, transfee, etc.)Generates official class list or control sheet by department, teacher or subjectReport on all enrolled students on a particular subject(s)Generates instructors loads and teacher's programs with info on class sizesReport on laboratory/professional subjects with info on related chargesReal-time statistics on enrollment data for management monitoringPrints general schedule with filter on open, closed, newly open, dissolved classesStatistical reports on enrollment by subject, credits earned, lecture/laboratory units and head count (FTE)Summary reports on reserved/confirmed, old/new and gender all can be displayed by course, department with year level in columns		Prints diploma of all graduating students on the fly
D. Reportsdepartment, course, year, gender, classifications (new, old, freshmen, returnee, shifter, regular, graduating, cross enrollee, transfee, etc.)Generates official class list or control sheet by department, teacher or subjectReport on all enrolled students on a particular subject(s)Generates instructors loads and teacher's programs with info on class sizesReport on laboratory/professional subjects with info on related charges Real-time statistics on enrollment data for management monitoringPrints general schedule with filter on open, closed, newly open, dissolved classesStatistical reports on enrollment by subject, credits earned, lecture/laboratory units and head count (FTE)Summary reports on reserved/confirmed, old/new and gender all can be displayed by course, department with year level in columns		
D. Reports Report on all enrolled students on a particular subject(s) Generates instructors loads and teacher's programs with info on class sizes Report on laboratory/professional subjects with info on related charges Real-time statistics on enrollment data for management monitoring Prints general schedule with filter on open, closed, newly open, dissolved classes Statistical reports on enrollment by subject, credits earned, lecture/laboratory units and head count (FTE) Summary reports on reserved/confirmed, old/new and gender all can be displayed by course, department with year level in columns		department, course, year, gender, classifications (new, old, freshmen, returnee,
D. Reports Generates instructors loads and teacher's programs with info on class sizes Report on laboratory/professional subjects with info on related charges Real-time statistics on enrollment data for management monitoring Prints general schedule with filter on open, closed, newly open, dissolved classes Statistical reports on enrollment by subject, credits earned, lecture/laboratory units and head count (FTE) Summary reports on reserved/confirmed, old/new and gender all can be displayed by course, department with year level in columns		Generates official class list or control sheet by department, teacher or subject
D. Reports Report on laboratory/professional subjects with info on related charges Real-time statistics on enrollment data for management monitoring Prints general schedule with filter on open, closed, newly open, dissolved classes Statistical reports on enrollment by subject, credits earned, lecture/laboratory units and head count (FTE) Summary reports on reserved/confirmed, old/new and gender all can be displayed by course, department with year level in columns		Report on all enrolled students on a particular subject(s)
D. Reports Real-time statistics on enrollment data for management monitoring Prints general schedule with filter on open, closed, newly open, dissolved classes Statistical reports on enrollment by subject, credits earned, lecture/laboratory units and head count (FTE) Summary reports on reserved/confirmed, old/new and gender all can be displayed by course, department with year level in columns		Generates instructors loads and teacher's programs with info on class sizes
D. Reports Prints general schedule with filter on open, closed, newly open, dissolved classes Statistical reports on enrollment by subject, credits earned, lecture/laboratory units and head count (FTE) Summary reports on reserved/confirmed, old/new and gender all can be displayed by course, department with year level in columns		Report on laboratory/professional subjects with info on related charges
D. Reports classes Statistical reports on enrollment by subject, credits earned, lecture/laboratory units and head count (FTE) Summary reports on reserved/confirmed, old/new and gender all can be displayed by course, department with year level in columns		Real-time statistics on enrollment data for management monitoring
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displayed by course, department with year level in columns	D. Reports	
Prints Certifications of Enrollment, Billing and Grades		
Prints Transcript of Records, True Copy of Grades, Scholastic Records, Form-9 and Diploma		1 10
Supports multiple discounts/scholarship grants availed by single student		Supports multiple discounts/scholarship grants availed by single student
Features for	Fastures for	User-defined discounts/scholarships and classifications
Scholarship/Discounts Option to define internal and external scholarships		Option to define internal and external scholarships
Option for grantees that will be automatically validated even without payment		Option for grantees that will be automatically validated even without payment

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	User-defined options on maximum units, rates on tuition, misc, lab, others and for fixed amount.
	Option to include or exclude specific fees in the computation.
	Entry of discount/scholarship grantees with option to automatically compute
	Distribution of payment to grantees from the amount paid by sponsor
	Automatically debits/credits to the receivable ledgers of sponsors
	Reports on List of Grantees, Tuition & Other Discounts, Summary of Discounts/Scholarships, Detailed Report on Discount/Scholarships with distribution on affected fees and Summary on Collected Fees
	User-defined Assessment Setup criteria by level, department, course, year, class code, new, old, freshmen, returnee, shifter, transferee, cross enrollee, graduating, foreigner, exclusive and special
	Assessment Setup for no tuition, sole subject, late enrollees and adding/dropping
	Assessment Setup charges can be configured per unit, per subject, per hour, fixed amount, or packaged
Features for Assessment	Report on laboratory and professional subjects that were not/missed charged
	Automatic assessment of enrollment (no need for a separate step for assessment)
	Automatic re-assessment of students when some fees have changed or corrected
	Generation of Statement of Accounts with options to filter by period, as of date, fee, level, department, course, year and student names.
	Prints reminder slips, examination permits and student clearances
	Detailed Report on Assessments (Fees on columns), Enrollment/Assessment Summary, Assessment by Fee, Summary by Department, Summary of Assessment and Collections
	Schedule Summary Report: No of students, units, tuition, laboratory, miscellaneous, other, all and total fees
	Integrated smartcard reader (no need to type student IDs)
	Automatic computation of required payment for down payment and examinations
	Automatic detection of period based on last transaction of student
	Automatic distribution of paid amount to both assessed and adjusted fees
Features for Cashiering	Automatically posts assessed fee payment to student ledger
reatures for Cashering	Automatically posts collected fees to subsidiary accounts (Publication, Guidance, NSTP, Insurance, etc.)
	Automatically posts discounted fees to sponsor ledgers
	Automatic segregation of funds for deposits
	Entry of deposits to bank accounts with respect to fund segregation
	Supports both cash basis and accrual accounting

Г	
	Generation of reports such as Official Receipts Listing, Collection Details, Summary of Assessment and Collections, Collection of Assessed Fees, Collection by Fee, Summary of Collections, Collection for Deposit, Daily/Monthly Cash Report, Cash Receipts Record, Cash Book, Report of Collections and Deposits, Summary of Report of Collections and Deposits, Daily Cashiers Summary
	User-defined Chart of Accounts on code, description, type, parent account, contra, subsidiary, order no, etc. User-defined Accounts for Allotment and Obligations
	User-defined fees on code, description, type (tuition, miscellaneous, laboratory, other, non-assess and non-school), collection/income account, fund, nature of collection and priority level
	User-defined Funds, Banks and Bank Accounts
	User-defined Assessment Setup criteria by level, department, course, year, class code, new, old, freshmen, returnee, shifter, transferee, cross enrollee, graduating, foreigner, exclusive and special
	Assessment Setup for no tuition, sole subject, late enrollees and
Features for Accounting	adding/dropping
	Assessment Setup charges can be configured per unit, per subject, per hour,
	fixed amount, or packaged Added laboratory and other charges for laboratory/professional subjects
	User-defined down payment options by level, department, course or year where
	required down payment, charge rate, distribution and computation can be
	defined
	Configuration of periodic exams with inclusive dates for collection purposes
	Report on laboratory and professional subjects that were not/missed charged
	Automatic assessment of enrollment (no need for a separate step for assessment)
	Automatic re-assessment of students when some fees have changed or corrected
	Generation of Statement of Accounts with options to filter by period, as of date, fee, level, department, course, year and student names.
	Prints reminder slips, examination permits and student clearances
	Detailed Report on Assessments (Fees on columns), Enrollment/Assessment Summary, Assessment by Fee, Summary by Department, Summary of Assessment and Collections
	Schedule Summary Report: No of students, units, tuition, laboratory, miscellaneous, other, all and total fees
	Reports on Detailed Transactions, Inactive Accounts, Cumulative Ledger, Periodic Exam Accounts, Exam Accounts Summary, Due Accounts, Summary of Accounts, Accounts Balances, Adjustments, Masterlist of Student Receivable, Balance Forwarded and Aging of Student Receivables
	Entry and monitoring of Promisory Notes
	Entry of Adjustments which automatically updates student ledger
	Posting of Reminders to cashier
	Prints periodic examination summary of collectibles
	Entry for Vouchers Payable
L	

Entry for Allotments and Obligation Requests
Transaction entries for cash and check disbursements
Transaction entries for Check Issuance, Encashment, Cancellation and other Bank transactions
Breakdown/Summary of Obligations, Statement of Allotment and Obligations
Reports on Check Register, Check Disbursement Record, and Check Disbursement Journal
Transaction entries for general journal and journal entry voucher
Reports on Journal Entries, General Ledger, Receivables Ledger and Payables Ledger
Generates Summary of Debits and Credits
Generates Trial Balance, Income Statement and Balance Sheet



Figure 3. Smartcard Information Kiosk of Samar State University



Figure 4. Actual Use of Smartcard Information Kiosk of Samar State University

Status of the Implementation of Student Information and Accounting System

The following are the status of the implementation of SIAS in terms of the knowledge learned of the participants about the SIAS feature, attendance to training of the participants and the extent of utilization of the said system:

Knowledge Learned about the SIAS features

Table 2

Status of Implementation of SIAS in terms of the Knowledge Learned about the Features by the Assessment Office Staff

	Indicators		Xw/Interpretation	
1.	User-defined Assessment Setup criteria by level, department, course, year, class code, new, old, freshmen, returnee, shifter, transferee, cross enrollee, graduating, foreigner, exclusive and special	5.00	E	
2.	Assessment Setup for no tuition, sole subject, late enrollees and adding/dropping	5.00	Е	
3.	Assessment Setup charges can be configured per unit, per subject, per hour, fixed amount, or packaged	5.00	Е	
4.	Report on laboratory and professional subjects that were not/missed charged	5.00	Е	
5.	Automatic assessment of enrollment (no need for a separate step for assessment)	5.00	Е	
6.	Automatic re-assessment of students when some fees have changed or corrected	5.00	Е	
7.	Generation of Statement of Accounts with options to filter by period, as of date, fee, level, department, course, year and student names.	5.00	Е	
8.	Prints reminder slips, examination permits and student clearances	4.00	G	
9.	Detailed Report on Assessments (Fees on columns), Enrollment/Assessment Summary, Assessment by Fee, Summary by Department, Summary of Assessment and Collections	5.00	Е	
10.	Schedule Summary Report: No of students, units, tuition, laboratory, miscellaneous, other, all and total fees	5.00	Е	
	Grand Mean	4.90	Ε	

4.51-5.00 Excellent (E) / Able to teach someone else
3.51-4.50 Good (G) / Able to practice independently
2.51-3.50 Average (A) / Has some experience but needs supervision
1.51-2.50 Fair (F) / Know something but no experience
1.00-1.50 Poor (P) / Know nothing

In this table, it shows that the participants perceived excellent/able to teach someone else with a score of 5.00 as to nine (9) out of ten (10) indicators. Indeed, it is evident that the staff from the assessment office was able to teach someone else with the indicators below as the grand mean resulted 4.90.

Table 2

Status of Implementation of SIAS in terms of the Knowledge Learned about the Features by the Faculty

	Indicators	Xw/Interpretation	
1.	Entry of grades by teacher or registrar through network.	4.16	G
2.	Controlled editing of grades through authorization and privileged.	3.88	G
3.	Changes to grades are logged by the system for auditing.	3.62	G
4.	Exports and import grades encoded in MS Excel by teacher or department.	3.23	А
5.	Supports standard grading systems of SUCs (Ateneo, La Salle, Percentile, etc.).	3.05	А
6.	Can input grades in all terms such as Prelim, Midterm and Finals with option to automatically compute the Final Grade.	3.77	G
7.	Entry of external grades (transferees) using original codes, descriptions, grades and grading system.	3.07	А
8.	Generates periodic average for the determination of academic achievers.	3.04	А
9.	Generates general weighted average (GWA) from any period to any period.	3.21	А
10.	Monitoring and replacement of incomplete (INC) to a failed grade value.	3.34	А
11.	Monitoring of teachers' progress in grade entry (finished/unfinished) with pass/fail statistics for management action.	3.29	А
12.	Automatically evaluate students based on their respective curriculum.	3.07	А
13.	Automatic crediting of internal and equivalent subjects.	2.99	А
14.	System assisted crediting of external subjects (from other schools).	3.01	А
	Grand Mean	3.34	Α

Legend:

4.51-5.00 Excellent (E) / Able to teach someone else
3.51-4.50 Good (G) / Able to practice independently
2.51-3.50 Average (A) / Has some experience but needs supervision
1.51-2.50 Fair (F) / Know something but no experience
1.00-1.50 Poor (P) / Know nothing

This table presents the status of the implementation of Student Information and Accounting System in terms of the knowledge learned by the faculty from different colleges/department of the different features of the said system. Participants perceived good/able to practice independently as to the indicators, "Entry of grades by teacher or registrar through network", "Controlled editing of grades through authorization and privileged", "Changes to grades are logged by the system for auditing", and "Can input grades in all terms such as Prelim, Midterm and Finals with option to automatically compute the Final Grade". Meanwhile, participants scored average/has some experience but still requires supervision with the rest of the indicators. Therefore, this result implied that majority of the faculty members have some experienced but requires supervision of the features of SIAS as the grand mean resulted 3.34.

Table 2

Status of Implementation of SIAS in terms of the Knowledge Learned about the Features by the Students

	Indicators	Xw/Interpretation	
1.	Integrated information kiosk system for viewing grades, accounts & queue using smartcards IDs	4.47	Е
2.	Integrated online real-time cloud queuing system using smartcards IDs	4.01	G
3.	Smartcard or biometric touch screen wall-mounted information kiosk	4.15	G
4.	Integrated teller/counter module using smartcard IDs for more efficient	4.03	G

5.	Updates on queue status are real-time in all information kiosks	3.91	G
6.	Can add/delete/enable/disable offices which is reflected in kiosks in real- time.	3.51	G
7.	Caters to all offices such Registrar, Cashier, Enrollment, Guidance, Scholarship, Promissory, Deans, etc.	4.03	G
	Grand Mean	4.02	G

4.51-5.00 Excellent (E) / Able to teach someone else
3.51-4.50 Good (G) / Able to practice independently
2.51-3.50 Average (A) / Has some experience but needs supervision
1.51-2.50 Fair (F) / Know something but no experience
1.00-1.50 Poor (P) / Know nothing

This table illustrates the status of the implementation of Student Information and Accounting System in terms of the knowledge learned by the students from different colleges/department of the different features of the said system. Participants scored 4.47 as they perceived excellent/able to teach someone else with the indicator Integrated information kiosk system for viewing grades, accounts & queue using smartcards IDs. However, majority of the participants scored good/able to practice independently with the six (6) indicators. Hence, students were able to practice independently with the features of SIAS as the grand mean resulted 4.02.

Table	2
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Status of Implementation of SIAS in terms of the Knowledge Learned by the Student Affairs and Services' Office Employees and Staff

	Indicators	Xw/Interpret	ation
1.	Supports multiple discounts/scholarship grants availed by single student	3.17	А
2.	User-defined discounts/scholarships and classifications	3.17	А
3.	Option to define internal and external scholarships	3.17	А
4.	Option for grantees that will be automatically validated even without payment	3.17	А
5.	User-defined options on maximum units, rates on tuition, misc, lab, others and for fixed amount.	3.17	А

6.	Option to include or exclude specific fees in the computation.	3.17	А
7.	Entry of discount/scholarship grantees with option to automatically compute	3.00	А
8.	Distribution of payment to grantees from the amount paid by sponsor	3.17	А
9.	Automatically debits/credits to the receivable ledgers of sponsors	3.00	А
10.	Reports on List of Grantees, Tuition & Other Discounts, Summary of Discounts/Scholarships, Detailed Report on Discount/Scholarships with distribution on affected fees and Summary on Collected Fees	3.00	А
	Grand Mean	3.12	Α

4.51-5.00 Excellent (E) / Able to teach someone else
3.51-4.50 Good (G) / Able to practice independently
2.51-3.50 Average (A) / Has some experience but needs supervision
1.51-2.50 Fair (F) / Know something but no experience
1.00-1.50 Poor (P) / Know nothing

As presented in this table, participants perceived "average/has some experience

but still requires supervision" to all the features of SIAS. Therefore, it is evident that all

staff and employee from OSAS has some experience but still requires supervision in

manipulating the aforementioned indicators as the grand mean resulted 3.12.

Table 2

Status of Implementation of SIAS in terms of the Knowledge Learned about SIAS Features by the Cashier's Office Employees and Staff

	Indicators	Xw/Interpre	etation	
1.	Integrated smartcard reader (no need to type student IDs)	3.40	А	
2.	Automatic computation of required payment for down payment and examinations	3.80	G	
3.	Automatic detection of period based on last transaction of student	3.60	G	
4.	Automatic distribution of paid amount to both assessed and adjusted fees	4.60	Е	
5.	Automatically posts assessed fee payment to student ledger	4.80	Е	
6.	Automatically posts collected fees to subsidiary accounts (Publication, Guidance, NSTP, Insurance, etc.)	4.80	Е	
7.	Automatically posts discounted fees to sponsor ledgers	3.00	А	
8.	Automatic segregation of funds for deposits	5.00	G	

9.	Entry of deposits to bank accounts with respect to fund segregation	5.00	G
10.	Supports both cash basis and accrual accounting	4.00	А
11.	Generation of reports such as Official Receipts Listing, Collection Details, Summary of Assessment and Collections, Collection of Assessed Fees, Collection by Fee, Summary of Collections, Collection for Deposit, Daily/Monthly Cash Report, Cash Receipts Record, Cash Book, Report of Collections and Deposits, Summary of Report of Collections and Deposits, Daily Cashiers Summary	5.00	E
	Grand Mean	4.36	G

4.51-5.00 Excellent (E) / Able to teach someone else
3.51-4.50 Good (G) / Able to practice independently
2.51-3.50 Average (A) / Has some experience but needs supervision
1.51-2.50 Fair (F) / Know something but no experience
1.00-1.50 Poor (P) / Know nothing

This table presents the status of the implementation of Student Information and Accounting System in terms of the knowledge learned about the different features of the said system by the staff and employees from the Cashier's Office. Participants are able to practice independently with the features 'Automatic detection of period based on last transaction of student', 'Automatic detection of period based on last transaction of student', 'Automatic segregation of funds for deposits', and 'Entry of deposits to bank accounts with respect to fund segregation' as they scored 'good'. Indeed, this result implied that majority of the participants were able to practice independently with the aforementioned indicators as the grand mean resulted 4.36.

Table 2

Status of Implementation of SIAS in terms of the Knowledge Learned about the Features by the Registrar's Office Employees and Staff

	Indicators	Xw/Interpre	tation
A.	Setup	·	
1.	User-defined credentials/admission documents	4.10	G
2.	Monitoring of submission of credentials/admission documents	3.20	А
3.	Summary report on submitted/unsubmitted documents required for graduation	2.60	А
4.	User-defined periods on code, description, enrollment, adding/dropping & validation	4.00	G
5.	User-defined grading terms for any period like Prelim, Midterm, etc.	4.10	G
6.	User-defined table for the transmutation of grades from other grading systems like SUC (1.0, 3.0, etc), Percentile (75, 98, etc), Ateneo (A+,B-, etc), La Salle (4.0, 3.0, etc), and others	3.70	G
7.	User-defined courses and form-9 categorization per course	3.00	А
8.	User-defined subjects on code, course no., description, units, tuition, lec, lab, hours	3.80	G
9.	Facility to easily arrange the subjects globally based on classification	3.10	А
10.	Pre-requisites, co-requisites, equivalence can be defined on each subject	2.80	А
11.	Easy access to shared/synchronized subjects among all courses and curricula	3.90	G
12.	User-defined curricula with support effectivity year	3.10	А
13.	Change of Code/Name Authorization Protection	3.80	C
Sub	o-mean	3.48	A

B.	Class Schedule / Enrollment		
1.	Entry of class schedule which automatically detects conflicts	4.10	G
2.	Class schedule supports multiple rooms and/or teachers per class	3.00	А
3.	Facility to copy schedules of one class or whole period to another period	3.10	А
4.	Automatic generation of minimal class codes for fast encoding of enrollment	4.20	G
5.	Facility to limit, freeze, unfreeze or dissolve enrollment in any section or class	3.10	А
6.	Generates rooms assignment (tabular) and utilization (color coded) reports	3.10	А
7.	Creation of student accounts with automatic permanent or temporary ID	4.50	G
8.	Facility to merge a duplicate student account (including all its transactions) into the original account so that the duplicate account can then be deleted.	3.90	G
9.	Integrated smartcard reader for student identification (no need to type student ID)	3.50	G
10.	Facility to import all student ID pictures stored in a folder	2.60	А

Sub	-mean	3.57	G
20.	Reports on absences from student-attendance monitoring system.	2.40	F
19.	Viewing and printing of Student Profile	4.60	Е
18.	Saves student performance, absences and violations	3.20	А
17.	Transfer students from one class to another or subjects of student to another section	3.80	G
16.	Adding and dropping of subjects with automatic re-assessment	4.00	G
15.	Automatically computes and prints student assessment after encoding	4.30	G
14.	Automatically finds available schedules for the problematic subjects of student	3.10	А
13.	Use class codes (separated by space entered in one line only) for irregular students	2.80	А
12.	Encoding of enrolled subjects by block section for regular students	3.60	G
11.	Enrollment: Identification for New, Freshman, Returnee, Shiftee, Graduating, Transferee, Cross Enrollee, Foreigner, etc.	4.50	G

C.	Grades		
1.	Entry of grades by teacher or registrar through network	4.40	G
2.	Controlled editing of grades through authorization and privilege	3.60	G
3.	Changes to grades are logged by the system for auditing	3.90	G
4.	Export and import grades encoded in MS Excel by teacher or department	3.30	А
5.	Supports standard grading systems of SUCs, Ateneo, La Salle, Percentile, etc.	3.30	А
6.	Can input grades in all terms such as Prelim, Midterm & Finals with option to automatically compute the Final Grade	4.30	G
7.	Entry of external grades (transferees) using original codes, descriptions, grades and grading system	3.10	А
8.	Generates periodic average for the determination of academic achievers	2.80	А
9.	Generates general weighted average (GWA) from any period to any period	4.50	G
10.	Monitoring and replacement of incomplete (INC) to a failed grade value	2.90	А
11.	Monitoring of teacher's progress in grade entry (finished/unfinished) with pass/fail statistics for management action	2.80	А
12.	Automatically evaluate students based on their respective curriculum	2.90	А
13.	Automatic crediting of internal and equivalent subjects	2.90	А
14.	System assisted crediting of external subjects (from other schools)	3.00	А
Sub	-mean	3.41	Α

D.	Reports		
1.	Generates report on encoded grades that were not enrolled by students	3.50	А

2.	Generates report unsubmitted credentials/admission documents required	3.00	А
3.	Generates report on candidates for graduation with summary on unfinished subjects and lacking documents.	2.90	А
4.	Prints diploma of all graduating students on the fly	2.60	А
5.	Prints all enrollment reports like masterlist, enrollment list, etc.	4.70	Е
6.	Masterlist provides additional info on units (lec/lab) with filter options by level, department, course, year, gender, classifications (new, old, freshmen, returnee, shifter, regular, graduating, cross enrollee, transfee, etc.)	4.30	G
7.	Generates official class list or control sheet by department, teacher or subject	4.70	Е
8.	Report on all enrolled students on a particular subject(s)	4.50	G
9.	Generates instructors loads and teachers programs with info on class sizes	4.50	G
10.	Report on laboratory/professional subjects with info on related charges	3.40	А
11.	Real-time statistics on enrollment data for management monitoring	4.40	G
12.	Prints general schedule with filter on open, closed, newly open, dissolved classes	3.70	G
13.	Statistical reports on enrollment by subject, credits earned, lecture/laboratory units and head count (FTE)	3.80	G
14.	Summary reports on reserved/confirmed, old/new and gender all can be displayed by course, department with year level in columns	4.60	Е
15.	Prints Certifications of Enrollment, Billing and Grades	3.70	G
16.	Prints Transcript of Records, True Copy of Grades, Scholastic Records, Form-9 and Diploma	2.70	А
Sub	-mean	3.81	G
Gra	nd Mean	3.57	G

4.51-5.00 Excellent (E) / Able to teach someone else

3.51-4.50 Good (G) / Able to practice independently

2.51-3.50 Average (A) / Has some experience but needs supervision

1.51-2.50 Fair (F) / Know something but no experience

1.00-1.50 Poor (P) / Know nothing

This table illustrates the status of the implementation of Student Information and Accounting System in terms of the knowledge learned about the different features of the said system by the staff and employees from the Registrar's Office. In this section, the indicators have four categories: set – up, class schedule/enrollment, grades, and report. In the set – up category, participants perceived good/able to practice independently with the different indicators as it summarizes with the sub – mean of 3.48. On the other hand, features under class schedule/enrollment category summarizes that participants perceived good/able to practice independently as its sub – mean showed 3.57. Furthermore, participants responded average/ has some experience but still requires supervision with the indicators under grades category as its sub – mean showed 3.41. Moreover, participants perceived good/able to practice independently with the indicators under grades category as its sub – mean showed 3.41. Moreover, participants perceived good/able to practice independently with the indicators under report category as its sub – mean summarizes 3.81. In general, the result implied that participants were able to practice independently with the different indicators in this section as the grand mean resulted 3.57.

Table 2

Status of Implementation of SIAS in terms of the Knowledge Learned about the Features by the Colleges' Staff

	Indicators	Xw/Interpret	ation
А.	Setup		
1.	User-defined credentials/admission documents	3.63	G
2.	Monitoring of submission of credentials/admission documents	3.50	А
3.	Summary report on submitted/unsubmitted documents required for graduation	3.44	А
4.	User-defined periods on code, description, enrollment, adding/dropping & validation	3.63	G
5.	User-defined grading terms for any period like Prelim, Midterm, etc.	3.69	G
6.	User-defined table for the transmutation of grades from other grading systems like SUC (1.0, 3.0, etc), Percentile (75, 98, etc), Ateneo (A+,B-, etc), La Salle (4.0, 3.0, etc), and others	2.69	А
7.	User-defined courses and form-9 categorization per course	3.56	G
8.	User-defined subjects on code, course no., description, units, tuition, lec, lab, hours	3.81	G
9.	Facility to easily arrange the subjects globally based on classification	3.56	G

10.	Pre-requisites, co-requisites, equivalence can be defined on each subject	3.31	А
11.	Easy access to shared/synchronized subjects among all courses and curricula	3.81	G
12.	User-defined curricula with support effectivity year	3.69	G
13.	Change of Code/Name Authorization Protection	3.56	G
Sub	-Mean	3.53	G

B.			
	Class Schedule / Enrollment	4 1 2	
1.	Entry of class schedule which automatically detects conflicts	4.13	G
2.	Class schedule supports multiple rooms and/or teachers per class	4.00	G
3.	Facility to copy schedules of one class or whole period to another period	3.56	G
4.	Automatic generation of minimal class codes for fast encoding of enrollment	3.81	G
5.	Facility to limit, freeze, unfreeze or dissolve enrollment in any section or class	3.75	G
6.	Generates rooms assignment (tabular) and utilization (color coded) reports	3.69	G
7.	Creation of student accounts with automatic permanent or temporary ID	3.50	А
	Facility to merge a duplicate student account (including all its		
8.	transactions) into the original account so that the duplicate account can then be deleted.	3.69	G
9.	Integrated smartcard reader for student identification (no need to type student ID)	2.81	А
10.	Facility to import all student ID pictures stored in a folder	2.44	F
11.	Enrollment: Identification for New, Freshman, Returnee, Shiftee, Graduating, Transferee, Cross Enrollee, Foreigner, etc.	3.31	А
12.	Encoding of enrolled subjects by block section for regular students	3.00	А
13.	Use class codes (separated by space entered in one line only) for irregular students	2.69	А
14.	Automatically finds available schedules for the problematic subjects of student	3.00	А
15.	Automatically computes and prints student assessment after encoding	3.75	G
16.	Adding and dropping of subjects with automatic re-assessment	3.50	А
17.	Transfer students from one class to another or subjects of student to another section	3.63	G
18.	Saves student performance, absences and violations	2.50	F
19.	Viewing and printing of Student Profile	3.00	А
Sub	Mean	3.36	Α
C.	Grades		
1.	Entry of grades by teacher or registrar through network	3.25	А
2.	Controlled editing of grades through authorization and privilege	3.44	А

3.	Changes to grades are logged by the system for auditing	3.19	А
4.	Export and import grades encoded in MS Excel by teacher or department	2.94	А
5.	Supports standard grading systems of SUCs, Ateneo, La Salle, Percentile, etc.	2.88	А
6.	Can input grades in all terms such as Prelim, Midterm & Finals with option to automatically compute the Final Grade	3.13	А
7.	Entry of external grades (transferees) using original codes, descriptions, grades and grading system	2.63	А
8.	Generates periodic average for the determination of academic achievers	2.75	А
9.	Generates general weighted average (GWA) from any period to any period	2.94	А
10.	Monitoring and replacement of incomplete (INC) to a failed grade value	3.25	А
11.	Monitoring of teacher's progress in grade entry (finished/unfinished) with pass/fail statistics for management action	2.69	А
Sub	Mean	3.01	Α

D.	Reports		T
1.	Generates report on encoded grades that were not enrolled by students	2.50	F
2.	Generates report on candidates for graduation with summary on unfinished subjects and lacking documents.	2.63	А
3.	Prints all enrollment reports like masterlist, enrollment list, etc.	3.88	G
4.	Masterlist provides additional info on units (lec/lab) with filter options by level, department, course, year, gender, classifications (new, old, freshmen, returnee, shifter, regular, graduating, cross enrollee, transfee, etc.)	3.50	А
5.	Generates official class list or control sheet by department, teacher or subject	3.81	G
6.	Report on all enrolled students on a particular subject(s)	3.56	G
7.	Generates instructors loads and teachers' programs with info on class sizes	3.94	G
8.	Report on laboratory/professional subjects with info on related charges	3.13	А
9.	Real-time statistics on enrollment data for management monitoring	3.56	G
10.	Prints general schedule with filter on open, closed, newly open, dissolved classes	3.63	G
11.	Statistical reports on enrollment by subject, credits earned, lecture/laboratory units and head count (FTE)	3.44	А
12.	Summary reports on reserved/confirmed, old/new and gender all can be displayed by course, department with year level in columns	3.69	G
13.	Prints Certifications of Enrollment, Billing and Grades	3.50	А
Sub	-mean	3.44	Α

4.51-5.00 Excellent (E) / Able to teach someone else
3.51-4.50 Good (G) / Able to practice independently
2.51-3.50 Average (A) / Has some experience but needs supervision
1.51-2.50 Fair (F) / Know something but no experience
1.00-1.50 Poor (P) / Know nothing

In this section, indicators have four categories: set – up, class schedule/enrollment; grades and report. In the set – up category, it summarizes that participants are able to practice independently with the different indicators as the sub – mean resulted 3.53. Meanwhile, in the class schedule/enrollment category, participants perceived average/has some experience but still needs supervision with the different indicators under this section as the sub – mean showed 3.36. On the other hand, participants responded average/has some experience but still needs supervision with the different indicators under the grades category as its sub – mean resulted 3.01. Furthermore, participants have some experience but still needs supervision with the different indicators under the reports category, as its sub – mean showed 3.44. Generally, the result implied that the participants have some experience but still needs supervision with the different indicators as the grand mean resulted 3.33.

Attendance to Training

Α

3.33

	Responses												
Indicators		Yes	No	t Sure	No								
	F	F Percent		Percent	f	Percent							
Did the administration conducted training on how to manipulate/use the system?	187	42.2	120	27.1	136	30.7							
Did you attend the training?	83	18.7	21	4.7	339	76.5							

Status of Implementation of SIAS in Terms of Attendance to Training by the Respondents

Table 3 presents the status of implementation of Student Information and Accounting System in terms of the attendance to training of the participants. The result implied that, out of 443 participants, 187 or 42.2% of them perceived that the administration conducted the training, 120 or 27.1% were not sure if the administration conducted training while 136or 30.7% perceived that the administration did not conducted training on how to manipulate/use the system. On the contrary, as to the attendance to training of the faculty, staff and students, result implied that out of 443 participants, there were 83 or 18.7% attended the training, 21 or 4.7% were not sure if they attended the training, while 339 or 76.5% did not attend the training.

Extent of Utilization

Table 4

	Responses												
Features of SIAS	Regularl	y Used	Seldom	Used	Not Used								
reatures of SIAS	frequency	Percent	frequency	Percent	frequency	Percent							
Smartcard Information Kiosk	0	0.0	3	42.9	4	57.1							
Registrar – SETUP	7	53.8	6	46.2	0	0.0							
Registrar- Class Schedule/ Enrollment	11	52.4	5	23.8	5	23.8							
Registrar- Grades	4	26.7	6	40.0	5	33.3							
Registrar- Reports	13	76.5	3	17.6	1	5.9							
Assessment	14	93.3	1	6.7	0	0.0							
Discounts/Scholarships	10	100.0	0	0.0	0	0.0							
Cashiering	10	76.9	1	7.7	2	15.4							
Accounting	0	0.0	0	0.0	31	100.0							
Total	69	48.6	25	17.6	48	33.8							

Status of the Implementation of Student Information and Accounting System along Extent of Utilization

Further, there were 142 features of Student Information and Accounting System, seven (7) were smartcard information kiosk, 13 were registrar – setup, 21 were registrar – class schedule/enrollment, 15 were registrar – grades, 15 were assessment, ten (10) discounts/scholarships, 13 were for cashiering and 31 were for accounting. The result implied that out of 142 features, 69 or 48.6% were regularly used, 25 or 17.6% were seldom used, and 48 or 33.8% were not used.

Level of Effectiveness of Student Information and Accounting System in terms of System Quality

Table 5

Level of Effectiveness of SIAS concerning System Quality as Assessed by the Participants

	Respondent's Category																
Indicators		Assessment		Faculty		OSAS		Students		Cashier		Colleges		es Registr		Com-	T
		Xw/I preta		Xw/Inter pretation		bined Mean	Interpretation										
1.	The system presents integrated reports.	5.00	Е	4.07	HE	2.67	ME	4.38	HE	3.40	ME	4.25	HE	4.60	EE	4.05	HE
2.	The system limits to unauthorized access.	5.00	Е	4.07	HE	2.83	ME	4.24	HE	5.00	EE	4.06	HE	4.20	HE	4.20	HE
3.	The system generates result according to the request.	5.00	Е	3.88	HE	3.00	ME	4.20	HE	4.00	HE	3.81	HE	4.30	HE	4.03	HE
4.	The results generated by the system is accurate	5.00	Е	4.01	HE	3.00	ME	4.28	HE	4.20	HE	3.88	HE	4.40	HE	4.11	HE
5.	The system is capable to interact with one or more specified systems.	5.00	E	3.74	HE	2.67	ME	4.11	HE	3.00	ME	3.75	HE	4.40	HE	3.81	HE
	Grand Mean	5.00	EE	3.95	HE	2.83	ME	4.24	HE	3.92	HE	3.95	HE	4.38	HE	4.04	HE

Legend:

4.51-5.00 Extremely Effective (EE)

3.51-4.50 Highly Effective (HE)

2.51-3.50 Moderately Effective (ME)

1.51-2.50 Slightly Effective (SE)

1.00-1.50 Not Effective (NE)

Table 5 illustrates the level of effectiveness of Student Information and Accounting System concerning system quality as it was assessed by the participants. It summarizes that participants from Assessment Office perceived 'extremely effective' as the grand mean resulted 5.00. On the other, participants from the faculty, staff from Cahier's Office, colleges and departments, Registrar's Office, and student responded 'highly effective' as the grand mean resulted higher than 3.51 but not lesser than 4.50 while staff from Office of the Student Affairs responded 'moderately effective'. Hence, the result implied that in general, system quality of SIAS is 'highly effective' based on the evaluation of the participants.

Level of Effectiveness of Student Information and Accounting System in terms of Information Quality

Table 6

Level of Effectiveness of SIAS concerning Information Quality as Assessed by the Participants

	Respondent's Category																
Indicators		Assess -ment		Faculty		OSAS		Students		Cashier		Colleges		Registrar		Com-	Televentelier
		Xw/In preta		Xw/Inter pretation		bined Mean	Interpretation										
1.	The information provided by the system is accurate.	5.00	Е	3.90	HE	3.00	ME	4.28	HE	4.20	HE	3.75	HE	4.50	HE	4.09	HE
2.	The information provided by the system is complete.	4.00	HE	3.90	HE	3.00	ME	4.16	HE	4.00	HE	3.38	ME	4.10	HE	3.79	HE
3.	The information provided by the system is on time.	5.00	Ε	3.97	HE	3.17	ME	4.12	HE	5.00	EE	4.06	HE	4.40	HE	4.25	HE
4.	The information provided by the system is understandable.	5.00	Е	3.85	HE	2.83	ME	4.42	HE	5.00	EE	4.25	HE	4.40	HE	4.25	HE
5.	The volume of information provided by the system is appropriate.	5.00	E	3.78	HE	2.83	ME	4.27	HE	4.80	EE	3.88	HE	4.60	EE	4.17	HE
	Grand Mean	4.80	EE	3.88	HE	2.97	ME	4.25	HE	4.60	EE	3.86	HE	4.40	HE	4.11	HE

Legend:

4.51-5.00 Extremely Effective (EE)

3.51-4.50 Highly Effective (HE)

2.51-3.50 Moderately Effective (ME)

1.51-2.50 Slightly Effective (SE)

1.00-1.50 Not Effective (NE)

Table 6 presents the level of effectiveness of Student Information and Accounting System concerning system quality as it was assessed by the participants. The result summarizes that the participant from the Assessment Office and Cashier's Office responded 'extremely effective'. Furthermore, faculty, students and staff from staff from colleges and Registrar's Office perceived 'highly effective'. However, participants from Office of the Student Affairs and Services responded 'moderately effective'. Therefore, the result implied that the information quality of SIAS is "highly effective" based on the response of the participants as the grand mean resulted 4.11.

Level of Effectiveness of Student Information and Accounting System in terms of System Usability

Table 7

Level of Effectiveness of SIAS concerning System Usability as Assessed by the Participants

	Respondent's Category																
	Indicators		ess ent	Fact	ulty	OS	AS	Stud	ents	Casl	hier	Coll	eges	Regi	strar	Com-	T
			v/Inter Xw/Inter etation pretation			Xw/Inter pretation		Xw/Inter pretation		Xw/Inter pretation		Xw/Inter Pretation		Xw/Inter pretation		bined Mean	Interpretation
1.	The system is simple to use.	5.00	Е	3.95	HE	2.83	ME	4.43	HE	4.00	HE	3.81	HE	4.40	HE	4.06	HE
2.	Using the system, user can effectively complete their work.	4.00	HE	3.84	HE	3.00	ME	4.28	HE	4.80	EE	3.31	ME	3.90	HE	3.88	HE
3.	Using the system, user is able to complete their work quickly.	5.00	Ε	3.88	HE	2.83	ME	4.22	HE	4.80	EE	3.81	HE	4.20	HE	4.11	HE
4.	It was easy to learn to use the system.	5.00	Ε	3.89	HE	3.00	ME	4.46	HE	3.20	ME	3.50	ME	4.10	HE	3.88	ME
5.	The information (such as online help, on-screen messages, and other documentation) provided with this system is clear	4.00	HE	3.60	HE	2.83	ME	4.19	HE	3.20	ME	3.25	ME	3.50	ME	3.51	HE
	Grand Mean	4.60	EE	3.83	HE	2.90	ME	4.32	HE	4.00	HE	3.54	HE	4.02	HE	3.89	HE

Legend:

4.51-5.00 Extremely Effective (EE)
3.51-4.50 Highly Effective (HE)
2.51-3.50 Moderately Effective (ME)
1.51-2.50 Slightly Effective (SE)
1.00-1.50 Not Effective (NE)

Table 7 shows the level of effectiveness of Student Information and Accounting System concerning system usability as it was assessed by the participants. The summary of result showed that participant from the Assessment Office responded 'extremely effective' as the grand mean indicates 4.60. Furthermore, participants from the faculty, students, and staff from the Cashier's Office, colleges, and Registrar's Office answered 'highly effective' as the grand mean leads to greater than 3.51 but not lesser than 4.50. However, staff from the Office of the Student Affairs and Services answered 'moderately effective'. In general, the result implied that the system usability of SIAS is 'highly effective' based on the assessment of the participants.

Level of User Satisfaction of Student Information and Accounting System in terms of System Quality

Table 8

Level of User Satisfaction of SIAS concerning System Quality as Assessed by the Participants

		Respondent's Category															
	Indicators		ess ent	Facu	ılty	OS	AS	Stud	ents	Casl	nier	Colle	eges	Regi	strar	Com-	T
			nter tion	Xw/I preta		Xw/l preta		Xw/I preta		Xw/I preta		Xw/I preta			Inter ation	bined Mean	Interpretation
1.	I am satisfied with the functionality of the system.	4.20	HS	3.81	HS	2.83	MS	4.28	HS	4.00	HS	3.88	HS	4.20	HS	3.89	HS
2.	I am satisfied with the reliability of the system.	4.30	HS	3.89	HS	2.83	MS	4.33	HS	4.80	ES	3.69	HS	4.30	HS	4.02	HS
3.	I am satisfied with the efficiency of the system.	4.20	HS	3.81	HS	2.67	MS	4.21	HS	4.80	ES	3.81	HS	4.20	HS	3.96	HS
	Grand Mean	4.23	HS	3.84	HS	2.78	MS	4.27	HS	4.53	ES	3.79	HS	4.23	HS	3.95	HS

Legend:

4.51-5.00 Extremely Satisfied (ES)3.51-4.50 Highly Satisfied (HS)2.51-3.50 Moderately Satisfied (MS)1.51-2.50 Slightly Satisfied (SS)

1.00-1.50 Not Satisfied (NS)

Table 8 illustrates the level of user satisfaction of the Student Information and Accounting System in terms of its system quality as evaluated by the participants. The result summarizes that participants from the Cashier's Office were 'extremely satisfied' as the grand mean indicated 4.53. On the other hand, participants from the faculty, students, and staff from different colleges and department, Registrar's Office, and Assessment Office were 'highly satisfied' as the grand mean resulted higher that 3.51 and not lower than 4.50. Further, participants from the Office of the Student Affairs and Services (OSAS) perceived 'moderately satisfied' as the grand mean resulted 2.78. With the combined responses of all participants, the result implied that the users were 'highly satisfied' in terms of the system quality of SIAS as the grand mean resulted 3.95.

Level of User Satisfaction of Student Information and Accounting System in terms of Information Quality

Table 9

Level of User Satisfaction of SIAS concerning Information Quality as Assessed by the Participants

									Respo	ndent's	s Cate	gory					
	To Bastana	Asso -me		Facu	ılty	OS.	AS	Stud	ents	Casl	nier	Coll	eges	Regi	strar	Com-	T
	Indicators	Xw/I: preta		Xw/I preta		Xw/I preta		Xw/I preta		Xw/I preta		Xw/l preta	Inter ation	Xw/l preta		bined Mean	Interpretation
1.	The information on the system is always timely.	4.20	HS	3.93	HS	2.83	MS	4.09	HS	4.80	ES	3.75	HS	4.20	HS	3.97	HS
2.	The information on the system is always accurate.	4.40	HS	3.92	HS	2.67	MS	4.22	HS	4.00	HS	3.81	HS	4.40	HS	3.92	HS
3.	The information on the system is usually relevant.	4.10	HS	4.07	HS	3.00	MS	4.38	HS	4.80	ES	3.50	MS	4.10	HS	3.99	HS
	Grand Mean	4.23	HS	3.97	HS	2.83	MS	4.23	HS	4.53	ES	3.69	HS	4.23	HS	3.96	HS
	Legend:																
	4.51-5.00 Extrem	mely Sat	isfied	(ES)													
	3.51-4.50 Highl	y Satisfi	ed (HS	5)													
	2.51-3.50 Mode	erately S	atisfied	d (MS)													
		1 0	• 1 /00	~													

1.51-2.50 Slightly Satisfied (SS)

1.00-1.50 Not Satisfied (NS)

Table 9 presents the level of user satisfaction of the Student Information and Accounting System in terms of its information quality as evaluated by the participants. The result sums up that the participants from the Cashier's Office were 'extremely satisfied', faculty, staff from Assessment Office, colleges and Registrar's Office were 'highly satisfied' as grand mean of their responds were higher than 3.51 but not lesser than 4.50, and staff from the Office of the Student Affairs and Services (OSAS) were 'moderately satisfied'. Generally, the result implied that the users were 'highly satisfied' in terms of the information quality of SIAS based on the responds of the participants.

Level of User Satisfaction of Student Information and Accounting System in terms of System Usability

Table 10

Level of User Satisfaction of SIAS concerning System Usability as Assessed by the Participants

									Resp	ondent	's Cate	egory					
	In directory	Ass -me		Fact	ulty	OS	AS	Stud	ents	Casl	hier	Colle	eges	Regi	strar	Com-	Televenteliev
	Indicators	Xw/I preta		Xw/Inter pretation		-	Xw/Inter pretation		nter	Xw/I preta		Xw/I preta		Xw/l preta	Inter Ition	bined Mean	Interpretation
1.	I am satisfied with how the system is easy to use.	4.40	HS	3.90	HS	2.67	MS	4.48	HS	4.00	HS	3.94	HS	4.40	HS	3.97	HS
2.	I am satisfied with the interface of the system.	4.00	HS	3.86	HS	2.67	MS	4.32	HS	4.80	ES	3.56	HS	4.00	HS	3.89	HS
3.	I am satisfied with the purpose of the system.	4.40	HS	4.01	HS	2.83	MS	4.44	HS	4.00	HS	3.75	HS	4.40	HS	3.98	HS
	Grand Mean	4.27	HS	3.92	HS	2.72	MS	4.41	HS	4.27	HS	3.75	HS	4.27	HS	3.94	HS
	Legend:																
	4.51-5.00 Extrem	ely Sati	isfied	(ES)													
	3.51-4.50 Highly		•	<i>,</i>													
	2.51-3.50 Moder	2		. ,													
	1.51-2.50 Slightly		•	5)													
	1.00-1.50 Not Sa	atisfied	(NS)														

Table 10 shows the level of user satisfaction of the Student Information and Accounting System in terms of its system quality as assessed by the participants. The result summarizes that majority of the participants perceived 'highly satisfied'. Hence, the result implied that the users were 'highly satisfied' in terms of the system usability of SIAS based on the assessment of the participants.

Relationship Between the Level of Effectiveness and Level of User Satisfaction of Student Information and Accounting System

Table 11

				Level	of User Sat	tisfaction			
Level of	S	System Qua	ality	Inf	ormation Q	Quality	S	ystem Usał	oility
Effectiveness	r-value	p-value (2- tailed)	Evaluation	r-value	p-value (2- tailed)	Evaluation	r-value	p-value (2- tailed)	Evaluation
System Quality	.664**	.000	S	.670**	.000	S	.662**	.000	S
Info Quality	.671**	.000	S	.725**	.000	S	.676**	.000	S
System Usability	.744**	.000	S	.650**	.000	S	.771**	.000	S

Relationship Between the Level of Effectiveness of SIAS and the Level of User Satisfaction

**. Correlation is significant at the 0.01 level (2-tailed).

Table 11 illustrates the relationship between the level of effectiveness and level of user satisfaction of Student Information and Accounting System. The result implied that there is a significant correlation between the level of effectiveness and the satisfaction of the user of the said system since system quality (r=0.664, p<0.05), information quality

(r=0.671, p<0.05), and system usability (r=0.744, p<0.05). The result of this study agreed with the study of Gürkut & Nat (2017) and Ajoye (2014) who found out that effectiveness of system quality and information quality of an information system has a good influence on user satisfaction.

Relationship Between the Status of Implementation and the Factors Affecting the Level of Effectiveness of Student Information and Accounting System

Table 12

Relationship Between the Status of Implementation of SIAS in Terms of the Knowledge Learned About SIAS Features and the Level of Effectiveness

Level of Effectiveness Dimension	r-value	p-value (2- tailed)	Evaluation
System Quality	.446**	.000	Significant
Information Quality	.407**	.000	Significant
System Usability	.486**	.000	Significant

**. Correlation is significant at the 0.01 level (2-tailed).

Table 12 denotes that the relationship between the status of implementation concerning the knowledge learned of the participants about the SIAS features and the level of effectiveness of the said system. The r computed value of the system quality is 0.446 and p value is lower than significance (alpha) level, information quality r value computed as 0.407, p-value is lesser than significance level, and system usability r value computed as 0.486 and p-value is lesser than 0.05. Therefore, correlation was significant

between the level of effectiveness of SIAS along system quality, information quality and system usability, and the knowledge learned of the participants about the said system's features.

Table 13

Relationship Between the Status of Implementation of SIAS in Terms of the Attendance to Training and the Level of Effectiveness

Indicator	Level of Effectiveness Dimension	Level of Effectiveness	Degree of Freedom	p-value	Evaluation	Interpretation
Did the administration	System Quality	Highly Effective	8	0.475	Not Significant	No significant relationship
conducted training on how	Information Quality	Highly Effective	8	0.177	Not Significant	No significant relationship
to manipulate/use the system?	System Usability	Highly Effective	8	0.417	Not Significant	No significant relationship
-	System Quality	Highly Effective	8	0.000	Significant	Correlation is significant
Did you attend the training?	Information Quality	Highly Effective	8	0.000	Significant	Correlation is significant
	System Usability	Highly Effective	8	0.022	Significant	Correlation is significant

Table 13 also denotes that the relationship between the status of implementation of in terms of the attendance to training of the participants and the level of effectiveness of Student Information and Accounting System. The result summarizes that there is no significant relationship between the indicator 'Did the administration conducted training on how to manipulate/use the system?' and the level of effectiveness of SIAS along system quality, information quality and system usability of the said system. On the other hand, the result sums up that there is significant relationship between the indicator 'Did you attend the training?' and the level of effectiveness of SIAS in terms of its system quality, information quality and system usability.

Relationship Between the Status of Implementation and the Factors Affecting the Level of User Satisfaction of Student Information and Accounting System

Table 14

Relationship Between the Status of Implementation of SIAS in Terms of the Knowledge Learned About SIAS Features and the Level of User Satisfaction

Level of Satisfaction Dimension	r-value	p-value (2- tailed)	Evaluation
System Quality	.373**	.000	Significant
Information Quality	.343**	.000	Significant
System Usability	.391**	.000	Significant

**. Correlation is significant at the 0.01 level (2-tailed).

As illustrated in Table 14, the level of user satisfaction along system quality computed with an r-value of 0.373 and p-value of .000, information quality with an r-value of 0.343 and p-value of .000, and system usability with an r-value of 0.343 and p-value of .000. The p value is higher than 0.05 significance (alpha) level. Therefore, the relationship between the level of user satisfaction concerning system quality, information quality, and user and the knowledge learned of the participants about the said system's features was significant.

Table 15

Relationship Between the Status of Implementation of SIAS in terms of the Attendance to Training and the Level of User Satisfaction

Attendance to Training Indicator	Level of User Satisfaction Dimension	Level of User Satisfaction	Degree of Freedom	p-value	Evaluation	Interpretation
Did the administration	System Quality	Highly Satisfied	8	0.964	Not Significant	No significant relationship
conducted training on how	Information Quality	Highly Satisfied	8	0.280	Not Significant	No significant relationship
to manipulate/use the system?	System Usability	Highly Satisfied	8	0.001	Significant	Correlation is significant
·	System Quality	Highly Satisfied	8	0.006	Significant	Correlation is significant
Did you attend the training?	Information Quality	Highly Satisfied	8	0.314	Not Significant	No significant relationship
	System Usability	Highly Satisfied	8	0.000	Significant	Correlation is significant

Table 15 presents the relationship between the status of implementation in terms of the attendance to training of the participants and the level of user satisfaction of the Student Information and Accounting System. The result gives an idea that there was no significant relationship between the indicator 'Did the administration conducted training on how to manipulate/use the system?', and the level of user satisfaction of the SIAS along system quality and information quality, while in terms of system usability, there is significant relationship. On the other hand, the result summarizes that there is significant relationship between the indicator 'Did you attend the training?' and the level of user satisfaction along system quality and system usability, while there was a significant relationship along information quality.

Chapter 5

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This section presents the summary of findings, conclusions, and recommendations.

Summary of Findings

The following were the findings of the study:

- 1. Student Information and Accounting System was created using C#.NET. C#.NET as its programming languages and MySQL/MariaDB for its database.
- Student Information and Accounting System is not network and resource hogging application, thus, it only requires a minimum of computer and network to operate.
- 3. SIAS has features for smartcard information kiosk usage, registrar, class schedule/enrollment, grades, reports, scholarship/discounts, assessment, accounting, and cashiering.
- 4. Status of implementation of SIAS in terms of the knowledge learned about its features by the staff from the Assessment Office resulted a grand mean of 4.90 or excellent/able to teach someone else.
- 5. Faculty perceived average/has some experience but requires supervision of the features of SIAS as the grand mean resulted 3.34.

- 6. Students were able to practice independently with the features of SIAS as the grand mean resulted 4.02.
- 7. Staff from Office of Student Affairs and Services have some experiences but still requires supervision in manipulating the SIAS features as the grand mean resulted 3.12.
- 8. Staff from Cashier's Office were able to practice independently with the SIAS features as the grand mean resulted 4.36.
- 9. Registrar's Office Staff participants were able to practice independently with the SIAS features as the grand mean resulted 3.57.
- 10. Staff from the different departments have some experience but still need supervision with the SIAS features as the grand mean resulted 3.33.
- 11. Out of four hundred forty-three (443) faculty, staff, and students, one hundred eighty-seven (187) or 42.2% of them perceived that the administration conducted training, one hundred twenty (120) or 27.1% were not sure if the administration conducted training while one hundred thirty-six (136) or 30.7% perceived that the administration did not conducted training on how to manipulate/use the system.
- 12. Attendance to training of the faculty, staff, and students were; out of four hundred forty-three (443) participants, eighty-three (83) or 18.7% attended the training, twenty-one (21) or 4.7% were not sure if they attended the training, while three hundred thirty-nine (339) or 76.5% did not attend the training.

- 13. Extent of utilization of SIAS features were; all features of SIAS has been utilized but differs in the participants' level of knowledge learned about its features.
- 14. The level of effectiveness of SIAS in terms of its system quality was "highly effective" as the grand mean resulted to 4.04.
- 15. The level of effectiveness of SIAS in terms of its information quality was "highly effective" as the grand mean leads to 4.04.
- 16. The level of effectiveness of SIAS in terms of its system usability was "highly effective" as the grand mean resulted to 3.89.
- 17. The level of user satisfaction of SIAS concerning system quality was "highly satisfied" as the grand mean resulted to 3.95.
- 18. The level of user satisfaction of SIAS concerning information quality was "highly satisfied" as the grand mean resulted to 3.96.
- 19. The level of user satisfaction of SIAS concerning system usability was "highly satisfied" as the grand mean resulted to 3.94.
- 20. The relationship between the level of effectiveness and user satisfaction of SIAS in terms of system quality, information quality, and system usability was significant.
- 21. The relationship between the status of implementation of SIAS in terms of knowledge learned of SIAS features by the participants and the level of effectiveness concerning system quality, information quality, and system usability was significant.

- 22. The relationship between the status of implementation of SIAS as to if the administration conducted training on how to use/manipulate the system and the level of effectiveness of SIAS concerning system quality, information quality, and system usability was not significant.
- 23. The relationship between the status of implementation of SIAS in terms of the attendance to training of the faculty, staff and students as to if the administration conducted training on how to use/manipulate the system and the level of effectiveness of SIAS concerning system quality, information quality, and system usability was significant.
- 24. The relationship between the status of implementation of SIAS in terms of knowledge learned of SIAS features by the faculty, staff and students, and the level of user satisfaction concerning system quality, information quality, and system usability was significant.
- 25. The relationship between the status of implementation of SIAS as to if the administration conducted training on how to use/manipulate the system and the level of user satisfaction of SIAS concerning system quality, and information quality was not significant while between system usability was significant.
- 26. The relationship between the status of implementation of SIAS in terms of the attendance to training of the faculty, staff and students as to if the administration conducted training on how to use/manipulate the system and the level of user satisfaction of SIAS concerning system quality, and system usability was significant while between information quality was not significant.

Conclusions

Based on the findings in this study, the following conclusions was drawn:

- 1. Student Information and Accounting System of Samar State University is highly effective in terms of its system quality, information quality, and system usability.
- 2. Computer literacy of the user is a major factor for the effectiveness of the operation of the system. Also, it contributes to the higher level of satisfaction of the user.
- 3. One factor that could affect the acceptability of the system is the lack of involvement of the user in the training for the operation of the system, which leads to the absence of knowledge of the user on its system's features and capability.

Recommendations

Based on the findings of the study, the following recommendations were considered:

1. Since effectiveness of Student Information and Accounting System was significant to the user satisfaction, the university authority may implement an IT policy that will ensure an efficient management and timely maintenance of the system to maximize the user satisfaction.

- 2. Since attendance to training of the participants was significant to the level of effectiveness and user satisfaction of the system, the university may implement a policy to conduct annual training on the operation of the Student Information and Accounting System, specifically that there are newly hired staff and faculty, and newly enrolled students every school year.
- 3. In addition, students must be included as participants in the training since they also use the system.
- 4. In order to maximize the knowledge of the faculty, staff, and students with the different features of SIAS, each usage of the said system's features must be clearly explained and demonstrated during training, specially to the staff from different colleges and Office of the Student Affairs and Services since they still need supervision in manipulating the system's features.
- 5. To fully assess the effectiveness and user satisfaction of SIAS by the faculty, all faculty must personally input their grades on the system.
- 6. Since the study was conducted one year after the implementation of the Student Information and Accounting System and some features are not yet fully implemented, it is recommended to conduct comparable studies after the full implementation of the said system to attain all – out sustainability.

BIBLIOGRAPHY

BIBLIOGRAPHY

- Ajoye, M. B., & Nwagwu, W. E. (2014). Information Systems User Satisfaction: A survey of the Postgraduate School Portal, University of Ibadan, Nigeria. *Library Philosophy and Practice (e-journal)*.
- Al-Hudhaif, S. A. (2010). Measuring Quality of Information System Services in Manufacturing Organizations in Riyadh. *JKAU: Econ. & Adm., Vol. 24 No.* 1, 151 - 171.
- Al-Mamary, Y. H., Shamsuddin, A., & Aziati, N. (2014). The Relationship between System Quality, Information Quality, and Organizational Performance. International Journal of Knowledge and Research in Management & E-Commerce Vol.4, Issue 3, 7-10.
- Arazy, O., Nov, O., Patterson, R., & Yeo, L. (2011). Information Quality in Wikipedia: The Effects of Group Composition and Task Conflict. *Journal of Management Information Systems*, Vol. 27, No. 4, 71 - 98.
- Arshad, Y., Azrin, M., & Afiqah, S. N. (2015). The Infleunce of Information System Success Factors towards Users' Satisfaction in Universiti Teknikal Malaysia Melaka . *ARPN Journal of Engineering and Applied Sciences VOL*. 10, NO. 23, 18156 - 18164.

- Au, N., Ngai, W., & Cheng, T. (2008). Extending the understanding of end user information systems satisfaction formation: an equitable needs fulfillment model approach. *MIS Quarterly, vol. 32, no. 1*, 43-66.
- Baraka, H. A., Baraka, H. A., & EL-Gamily, I. H. (2013). Assessing call centers' success: A validation of the DeLone and Mclean model for information system. *Egyptian Informatics Journal*, 99–108.
- *Cambridge Dictionary.* (2019, May). Retrieved from https://dictionary.cambridge.org/us/dictionary/english/knowledge
- Chong, A., & Romkey, L. (2016). Testing Inter-Rater Reliability in Rubrics for Large Scale Undergraduate Independent Projects. *Canadian Engineering Education Association*.
- Cohen, J. (1968). Weighed kappa: Nominal scale agreement with provision for scaled disagreement or partial credit. *Psychological Bulletin*, 70, 213-220.
- Cosidon, E. B. (2016). Student Information System for Kalinga State University-Rizal Campus. *International Journal of Computer Science and Information Technology Research*, Vol. 4, Issue 2, pp: (223-229).
- De Guzman, M. D., Arenas, J. L., Gutierrez, J. M., Reblora, J. A., & Ventayen, R. J. (2017). Users' Perspective on the Utilization of Student Information Management System. *ResearchGate*.

- DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean Model of Information Systems Success: A Ten-Year Update. *Journal of Management Information Systems*, 9-30.
- Fenton, R. (1996). Performance assessment system development. *Alaska Educational Research Journal*, 13-22.
- Fleiss, J. (1971). Measuring nominal scale agreement among many raters. *Psychological Bulletin*, *76*, 378–382.
- Gatian, A. W. (1994). Is user satisfaction a valid measure of system effectiveness? Information & Management 26, 119-131.
- Ghani, A. A. (2012). Adaptation of the Internal Control Systems with the Use of Information Technology. *International Management Review*.
- Gorla, N., Somers, T., & Wong, B. (2010). Organisational impact of system quality, information quality, and service quality. *The Journal of Strategic Information Systems*, 207-228.
- Guimaraes, T., Armstrong, C. P., Jones, & M., J. J. (2017). A New Approach to Measuring Information Systems Quality. *Quality Management Journal*, 16, 42-51.
- Gürkut, C., & Nat, M. (2017). Important Factors Affecting Student Information System Quality and Satisfaction. *EURASIA Journal of Mathematics, Science and Technology Education*, 923-932.

- Gustavsson, M., & Jonsson, P. (2008). Perceived Quality Deficiencies of Demand
 Information and Their Consequences. *International Journal of Logistics: Research & Applications*, 11, 295 312.
- Gutwin, C., & Greenberg, S. (1999). A Framework of Awareness for Small Groups in Sharedworkspace Groupware. Technical Report.
- Hakimpoor, H., & Khairabadi, M. (2018). Management Information Systems,
 Conceptual Dimensions of Information Quality and Quality of Managerial
 Decisions: Modelling Artificial Neural Networks. Universal Journal of
 Management , 127-133.
- Halkos, G., & Bousinakis, D. (2010). TheEeffect of Stress and Satisfaction on Productivity. *International Journal of Productivity and Performance*, 59, 415-431.
- Hashim, N. M., & Mohamed, S. N. (2013). Development of Student Information System. International Journal of Science and Research (IJSR), India Online ISSN: 2319-7064, 256.
- Hashim, N. M., & Mohamed, S. N. (2013). Development of Student Information System. International Journal of Science and Research (IJSR), India Online ISSN: 2319-7064, 256-260.
- Horsky, J., McColgan, K., Pang a, J. E., Melnikas, A. J., Linder, J. A., Schnipper, J. L., & Middleton, B. (2010). Complementary methods of system usability

evaluation: Surveys and observations during software design and development cycles. *Journal of Biomedical Informatics*, 72 - 79.

- Ika, L. (2009). Project success as a topic in project management journals. *Project Managemnet Journal*, Vol. 40 No. 4, pp. 6–19.
- Jonsson, A., & Svingby, G. (2007). The Use of Scoring Rubrics: Reliability, Validity and Educational Consequences. *Educational Research Review*, 2, 130-144.
- Kassim, E. S., Jailani, S. F., Hairuddin, H., & Zamzuri, N. (2012). Information system acceptance and user satisfaction: The mediating role of trust . *Elsevier*, 412 – 418.
- Kom, H. S., & Kom, Y. A. (2018). Web-based Usability Measurement for Student Grading Information System. *Procedia Computer Science*, 238 - 247.
- Mifsud, J. (2015, June 22). *UsabilityGeek*. Retrieved from UsabilityGeek : <u>https://usabilitygeek.com/usability-metrics-a-guide-to-quantify-system-usability/</u>
- Norfazlina, G., Sharidatul Akma, A., Nurul Adrina, S., & Noorizan, M. (2016). Customer Information System Satisfaction and Task Productivity: The Moderating Effect of Training. *Procedia Economics and Finance*, 7-12.
- Oliver, R. L. (2010). Satisfaction: A Behavioral Perspective on the Consumer. *Armonk: NY: M.E. Sharpe*.

- Olsson, N. (2008). Conflicts related to effectiveness and efficiency in Norwegian rail and hospital projects. *Project Perspectives*, pp 81–85.
- Petter, S., DeLone, W., & McLean, E. (2008). Measuring Information Systems Success: Models, Dimensions, Measures, and Interrelationships. *EJIS*, 236– 263.
- Rusli, N. M., Hassan, S., & Liau, N. E. (2013). Usability Analysis of Students Information System in a Public University. *Journal of Emerging Trends in Engineering and Applied Sciences (JETEAS)*, 806 - 810.
- S, P., W, D., & E., M. (2008). Measuring Information Systems Success: Models, Dimensions, Measures, and Interrelationships. *EJIS*, 236–263.
- Sagar, K., & Saha, A. (2017). A systematic review of software usability studies. Int. j. inf. tecnol.
- Sahawneh, N., Hayek, D. A., & Bshayreh, M. M. (2016). Evaluation of Accounting Information Systems in Meeting the Requirements of Financial and Managerial Performance: "Field Study in the United Arab Emirates". *International Journal of Humanities and Social Science*, 170.
- Secreto, P., & Pamulaklakin, R. L. (2015). Learners' Satisfaction Level with Online Student Portal as a Support System in an Open and Distance eLearning Environment (ODEL). *Turkish Online Journal of Distance Education*.

- Semeon, G., Musa, P., & Negash, S. (2015). The Success of Student Information Management System: The Case of Higher Education Institution in Ethiopia. Americas Conference on Information Systems, 1.
- Sharabati, M. M., Sulaiman, A., & Salleh, N. A. (2015). End User Satisfaction and Individual Performance Assessments in e-Procurement Systems. *International Journal of Computer Theory and Engineering, Vol. 7, No. 6,* 503 -509.
- Sherifi, I. (2015). Impact of Information Systems in Satisfying Students of the University: Case Study from Epoka University. *European Journal of Business and Social Sciences, Vol. 4, No.* 04, 167 - 175.
- Suduc, A.-M., Bizoi, M., & Filip, F. G. (2010). User Awareness about Information Systems. *Usability Studies in Informatics*, 19.
- Thi, L.-S., & Adnan, C. W. (2016). Determinants of Information System Effectiveness in Managing Agro-based Projects. *International Journal of Business and Society, Vol. 17 No. 3,* 447-460.
- Wiechetek, Ł. (2012). Effectiveness of information systems implementation: The case of the polish small and medium enterprises . *ResearchGate*, 193 202.
- Zulu, C. D. (2016). An Assessment of the Impact of the Centralised Electronic Student Records Management System at Africa University, Mutare, Zimbabwe. International Economics and Business, Vol. 2, No. 2.

APPENDICES

LETTER OF APPROVAL

Republic of the Philippines Samar State University COLLEGE OF GRADUATE STUDIES Catbalogan, City

April 4, 2019

DR. MARILYN D. CARDOSO

University President Samar State University Catbalogan City, Samar

Madam:

The undersigned, a Master of Science in Information Technology student, is currently conducting a research entitled, "EXTENT OF IMPLEMENTATION AND EVALUATION OF STUDENT INFORMATION AND ACCOUNTING SYSTEM (SIAS) OF SAMAR STATE UNIVERSITY".

In this regard, the undersigned would like to seek an approval from your good office to conduct a survey/data gathering to the following faculty, staff and students from the different colleges and offices in this institution since they are the identified participants of the said study.

Further, the undersigned would like to ask assistance from the office of the Dean of the different colleges for the distribution of the questionnaire to the faculty and students in their respective colleges.

Thank you very much and more power!

Sincerely yours,

(SGD.) ANNA MONICA C. PACULABA Researcher

Noted:

(SGD.) ENGR. ESTEBAN A. MALINDOG, JR., Ph. D. Dean, College of Graduate Studies

APPENDIX B

COVER LETTER FOR THE RESEARCH INSTRUMENT

Republic of the Philippines Samar State University COLLEGE OF GRADUATE STUDIES Catbalogan, City

Dear Respondents,

Greetings!

The undersigned is currently conducting a study entitled "EXTENT OF IMPLEMENTATION AND EVALUATION OF STUDENT INFORMATION AND ACCOUNTING SYSTEM (SIAS) OF SAMAR STATE UNIVERSITY" as a requirement to complete her degree leading to Master of Science in Information Technology.

In relation to this, the undersigned humbly asks your assistance in answering the questionnaire and hoping that you will take time answering the questions honestly. Rest assured that all data gathered will be treated with utmost confidentiality and will be used for the purpose of this research endeavor.

Thank you very much for your patience, support and cooperation!

Very truly yours,

(SGD.) ANNA MONICA C. PACULABA Researcher

APPENDIX C

QUESTIONNAIRE FOR ASSESSMENT OFFICE

I. Personal Background

Direction: Kindly provide the necessary data asked by writing your answers on the space provided.

Department/Office: _____

II. Knowledge Learned about the SIAS Feature

Direction: Please indicate your response on the box by putting a check (/) on the space provided.

- 5 Excellent (Able to teach someone else)
- 4 Good (Able to practice independently)
- 3 Average (Has some experience but still requires supervision)
- 2 Fair (Know something but no experience)
- 1 Poor (Know nothing)

Α.	Assessment	5	4	3	2	1
1. Use	er-defined Assessment					
Set	up criteria by level,					
dep	partment, course, year,					
clas	ss code, new, old,					
free	shmen, returnee,					
shi	fter, transferee, cross					
enr	collee, graduating,					
for	eigner, exclusive and					
spe	ecial					
2. Ass	sessment Setup for no					
tuit	tion, sole subject, late					
enr	collees and					
ado	ding/dropping					

3. Assessment Setup charges can be configured per unit, per subject, per hour, fixed amount, or packaged 4. Report on laboratory and professional subjects that
unit, per subject, per hour, fixed amount, or packaged4. Report on laboratory and professional subjects that
fixed amount, or packaged 4. Report on laboratory and professional subjects that
packaged
4. Report on laboratory and professional subjects that
professional subjects that
-
wore not/missed charged
were not/missed charged
5. Automatic assessment of
enrollment (no need for a
separate step for
assessment)
6. Automatic re-assessment
of students when some
fees have changed or
corrected
7. Generation of Statement
of Accounts with options
to filter by period, as of
date, fee, level,
department, course, year
and student names.
8. Prints reminder slips,
examination permits and
student clearances
9. Detailed Report on
Assessments (Fees on
columns),
Enrollment/Assessment
Summary, Assessment by
Fee, Summary by
Department, Summary of
Assessment and
Collections
10. Schedule Summary
Report: No of students,
units, tuition, laboratory,
miscellaneous, other, all
and total fees

III. Attendance to Training

Direction: Kindly provide the necessary data asked by putting a check (/) on the space provided.

		Yes	No	Not Sure
1.	Did the administration conducted training on how to manipulate/use the system?			
2.	Did you attend the training?			

IV. Effectiveness of the System

Direction: Please indicate your response on the box provided using the following scale:

- 5 Extremely Effective
- 4 Highly Effective
- 3 Moderately Effective
- 2 Slightly Effective
- 1 Not Effective

A. System Quality

	•	5	4	3	2	1	Score
1.	The	Includes all	Includes all	Includes	Includes	Cannot	
	system	the reports	the reports	some of the	basic	integrate	
	presents	needed by	on financial	financial	financial	reports	
	integrate	the	information	reporting but	reporting		
	d reports.	university/	but cannot	cannot be	only		
		students on	be updated	updated			
		financial					
		reporting					
		with future					
		additional					
		report					
		capability					
2.	The	With	With User	With user	With fixed	No User	
	system	Secured	Security	security but	username	Security at	
	limits to	User	and Level	without user	and	all	
	unauthori	security	Access	level access	password		
	zed	and User	Right	right			

	access.	Level Access Right					
3.	The system generates result according to the request.	All expected results are generated according to requests	Almost all expected results are generated but some are missing	Half of the request generates expected results and half are missing or with something wrong	The system generate result which are different from the request	No result at all	
4.	The results generated by the system is accurate.	All generated results are accurate	Almost all generated results are accurate	Only half of the generated results are accurate	Most of the generated results are NOT accurate	No results generated at all	
5.	The system is capable to interact with one or more specified systems	Compatible and upgradable to online version anytime. Future update can be integrated seamlessly	Compatible and upgradable to online version sometime. Difficulties in integrating future updates	Compatible but not upgradable to online version anytime. Has fix functionalities and cannot be updated with future integration	Not compatible but upgradable to online version anytime	Not compatible and not upgradable to online version anytime	

B. System Usability

	5	4	3	2	1	Score
1. The system is simple to use.	Interface is not complex providing quick access to	Menu and functions are somehow group to functionalit	Plain and crude interface and menu navigation	Obscured menu navigation and interfaces	Very crude and obscured interface and system navigation	

2.	Using the system, user can effectivel y complete their work.	common features or command The system can generate report and informatio n effectively	y but still has some navigation difficulties The system can generate report but somehow still need extra work to finalized properly	The system can help complete the work but still requires a lot of manual intervention	The system somehow can help a little bit to complete work	The system cannot help effectively to complete work	
3.	Using the system, user is able to complete their work quickly.	The system can complete work quickly	The system can complete their work but somehow still need extra effort to finalized properly	The system can help complete the work but still requires a lot of manual intervention	The system somehow can help a little bit complete their work slowly	The system cannot complete their work	
4.	It was easy to learn to use the system	Has bigger distinct clickable buttons/a reas. User can easily navigate/ use even without the help of an IT assistant	Has small distinct clickable buttons/ar eas that the user can easily to navigate/us e even without the help of an IT assistant	Has lots of small distinct clickable buttons/area s that the user can easily to navigate/use even without the help of an IT assistant	Has lots of small clickable buttons/are as but not that the user can easily to navigate/us e even without the help of an IT assistant	There are lots of complicat ed clickable buttons/ areas. User has difficulty in navigatin g/using the system and needs help of an IT assistant	
5.	The informati	Provides hints/info	Provides hints/infor	Provides hints/inform	Cryptic and ambiguous	No messages	

on (such	rmation	mation	ation about	error	at all	
as online	about the	about the	the usage of	messages		
help, on-	usage of	usage of	every fields.	and		
screen	every	every fields	Also, it has	information		
messages	fields,	and forms,	help files that	are		
, and	form and	and has	contain some	displayed by		
other	clickable	help files	information	the system		
documen	area, and	that contain	and			
tation)	has help	most of the	instruction			
provided	files that	information				
with this	contain	and				
system is	general	instruction.				
clear	informatio					
	n and					
	instructio					
	n.					

Based on: Ramezan, M. (2009) *Measuring the effectiveness of human resource information systems in national iraninan oil company and impirical assessment.* **Iranian Journal of Management Studies (IJMS)** 2:2, 129-145.

C. Information Quality

		5	4	3	2	1	Score
1.	The	Generates	Generates	Generates 60%	Generates	Cannot	
	informatio	100%	80% exact	exact	50% exact	generate	
	n	exact	informatio	information/r	information	accurate	
	provided	informatio	n/report	eport	/report	informatio	
	by the	n/report	according	according to	according to	n / report	
	system is	according	to the	the request.	the request.	according	
	accurate.	to the	request.			to the	
		request.				request.	
2.	The	Generates	Generates	Generates 60%	Generates	Cannot	
	informatio	100%	80%	complete	50%	generate	
	n	complete	complete	information/r	complete	complete	
	provided	informatio	informatio	eport	information	informatio	
	by the	n/report	n/report	according to	/report	n / report	
	system is	according	according	the request	according to	according	
	complete.	to the	to the		the request	to the	
		request.	request			request	
3.	The	Generates	Generates	Generates	Generates	Generates	
	informatio	informatio	informatio	information/r	information	informatio	
	n	n/report	n/report	eport	/report	n/report	

4.	provided by the system is on time. The informatio n provided by the system is understan dable.	according to the request with 30 secs interval Generates informatio n/report that is clearly relates according to the request. It includes several	according to the request with 1- minute interval A little bit of clarity on the reports and informatio n generated by the system	according to the request with 2 minutes interval Plain but understandabl e reporting and system information generated by the system	according to the request with 2- minutes and 30 seconds interval With a little bit of obscurity in the report and information generated by the system	according to the request with 3- minutes interval Obscured reporting and other informatio n generated by the system	
5.	The volume of informatio	supportin g details. Generates 100% appropria	Generates 80% appropriat	Generates 60% appropriate information/r	Generates 50% appropriate	Cannot generate informatio	
	n provided by the system is appropria te.	te informati on/report according to the request	e informatio n/report according to the request	eport according to the request	information /report according to the request	n according to the request	

V. User Satisfaction of the System

Direction: Please indicate your response on the box provided using the following scale:

- 5 Extremely Satisfied
- 4 Highly Satisfied
- 3 Moderately Satisfied
- 2 Slightly Satisfied
- 1 Not Satisfied

	A. System Quality	5	4	3	2	1	Score
1.	I am satisfied with the functionality of the system.	Complete necessary functions and reporting	Minor missing functionality and reporting	Some functionalit y and reports yield different from what is expected	Erroneous functional ity	Not function al at all	
2.	I am satisfied with the reliability of the system.	Correct and reliable reports and information generated by the system	Correct and reliable reports and information generated by the system but in a wrong format/ arrangement	Some reports display different information	Lot of erroneous informatio n with wrong design and format	Not reliable at all	
3.	I am satisfied with the efficiency of the system.	System is efficient and effective	System is efficient and effective with a little bit of manual intervention	System is somehow efficient in the transaction and reporting	Lots of functions and reporting are not efficient	Not efficient at all	
	B. System Usability	5	4	3	2	1	
1.	I am satisfied with how the system is easy to use.	Simple to use, tools are well - organized, requires minimal explanation for how to use it and does not malfunction or crash	Simple to use but needs a little time for familiarity of the menus and functionalities	A lot of time is needed to familiarize the system due to scattered and not organized menus and functions.	Difficult and confusing to use due to not organized menus and functions and not informativ e screens and	Really very difficult to use	

					design-		
	T .1 /1 1 1.4				designs.	T ()	
2.	I am satisfied with the interface of the	Plain, organized	Plain design with minimal	Plain design but	Simple designs	Interface are	
	system.	and self-	learning	menus and	but with	confusin	
	by stelli.	explanatory	curve needed	functions	little	g and	
		design and	to familiarize	are not well	confusing	not well	
		interfaces		organized	interfaces	organize	
		interfaces		orgunized	interfaces	d	
3.	I am satisfied with	System	System meets	System	A lot of	System	
	the purpose of the	meet all its	almost all	meets	features	totally	
	system.	purpose	purpose and	minor	and	did not	
	5	and	intended	purpose	function	meet its	
		intended	results but	and its	did not	intended	
		results and	still missing	intended	meet its	purpose	
		information	some minor	results bit a	purpose	and	
			information	lot of	and	results	
				missing	intended		
				features	results		
	C. Information Quality	5	4	3	2	1	
1.	The information	System can	System needs	Occasionall	Reports	Reports	
	on the system is	generate	a little time	y takes	and	and	
	always timely.	correct	for batch data	some time	informatio	informat	
		report and	sync before it	in	n	ion	
		information	can generate	generating	generated	generate	
		in real-time	report and	reports and	by the	d by the	
			information	information	system	system	
					takes a lot	is really	
					of time	not	
						timely	
2.	The information	Generate	Generate	Most	Some	System	
	on the system is	accurate	accurate	reports	reports	generate	
	always accurate.	reports and	reports but	generated	are not	not	
		information	with some	are accurate	accurate	accurate	
			incorrect	but there		informat	
			design format	are some		ion and	
				which are		reports	
				lacking			
				content and info			
3.	The information	Generates	Generates	Generates	Generates	Informat	
5.	on the system is	relevant	relevant	lacking	lacking	ion	
	usually relevant.	information	information	information	informatio		
1	usually relevant.	mormation	muormation	muormation	muormano	generate	

according to the	but in wrong design format	n in wrong	d are not relevant	
request	0	design format	at all	

Based on: Ajoye, M. B. (2014) *Information Systems User Satisfaction: A Survey of the Postgraduate School Portal, University of Ibadan, Nigeria.* Library and Practice (E-journal).

VI. Recommendations and Suggestions

Thank you for your cooperation and time in answering the evaluation form.

The Researcher

QUESTIONNAIRE FOR CASHIER'S OFFICE

I. Personal Background

Direction: Kindly provide the necessary data asked by writing your answers on the space provided.

Department/Office: _____

II. Knowledge Learned about the SIAS Feature

Direction: Please indicate your response on the box by putting a check (/) on the space provided using the following scale:

- 5 Excellent (Able to teach someone else)
- 4 Good (Able to practice independently)
- 3 Average (Has some experience but still requires supervision)
- 2 Fair (Know something but no experience)
- 1 Poor (Know nothing)

	Cashiering	5	4	3	2	1
1.	Integrated smartcard reader					
	(no need to type student IDs)					
2.	Automatic computation of					
	required payment for down					
	payment and examinations					
3.	Automatic detection of					
	period based on last					
	transaction of student					
4.	Automatic distribution of					
	paid amount to both assessed					
	and adjusted fees					
5.	Automatically posts assessed					
	fee payment to student					
	ledger					
6.	Automatically posts collected					
	fees to subsidiary accounts					
	(Publication, Guidance,					
	NSTP, Insurance, etc.)					

7. Automatically posts			
discounted fees to sponsor			
ledgers			
8. Automatic segregation of			
funds for deposits			
9. Entry of deposits to bank			
accounts with respect to fund			
segregation		 	
10. Supports both cash basis and			
accrual accounting			
11. Generation of reports such as			
Official Receipts Listing,			
Collection Details, Summary			
of Assessment and			
Collections, Collection of			
Assessed Fees, Collection by			
Fee, Summary of Collections,			
Collection for Deposit,			
Daily/Monthly Cash Report,			
Cash Receipts Record, Cash			
Book, Report of Collections			
and Deposits, Summary of			
Report of Collections and			
Deposits, Daily Cashiers			
Summary			

III. Attendance to Training

Direction: Kindly provide the necessary data asked by putting a check (/) on the space provided.

		Yes	No	Not Sure
1.	Did the administration conducted training on			
	how to manipulate/use the system?			
2.	Did you attend the training?			

IV. Effectiveness of the System

Direction: Please indicate your response on the box provided using the following scale:

- 5 Extremely Effective
- 4 Highly Effective
- 3 Moderately Effective
- 2 Slightly Effective
- 1 Not Effective

B. System Quality

		5	4	3	2	1	Score
1.	The system presents integrate d reports.	5 Includes all the reports needed by the university/ students on financial reporting with future additional report capability	Includes all the reports on financial information but cannot be updated	Includes some of the financial reporting but cannot be updated	Includes basic financial reporting only	1 Cannot integrate reports	Score
2.	The system limits to unauthori zed access.	With Secured User security and User Level Access Right	With User Security and Level Access Right	With user security but without user level access right	With fixed username and password	No User Security at all	
3.	The system generates result according to the request.	All expected results are generated according to requests	Almost all expected results are generated but some are missing	Half of the request generates expected results and half are missing or with something wrong	The system generate result which are different from the request	No result at all	

4.	The results generated by the system is accurate.	All generated results are accurate	Almost all generated results are accurate	Only half of the generated results are accurate	Most of the generated results are NOT accurate	No results generated at all	
5.	The system is capable to interact with one or more specified systems	Compatible and upgradable to online version anytime. Future update can be integrated seamlessly	Compatible and upgradable to online version sometime. Difficulties in integrating future updates	Compatible but not upgradable to online version anytime. Has fix functionalities and cannot be updated with future integration	Not compatible but upgradable to online version anytime	Not compatible and not upgradable to online version anytime	

B. System Usability

		5	4	3	2	1	Score
1.	The system is simple to use.	Interface is not complex providing quick access to common features or command	Menu and functions are somehow group to functionalit y but still has some navigation difficulties	Plain and crude interface and menu navigation	Obscured menu navigation and interfaces	Very crude and obscured interface and system navigatio n	
2.	Using the system, user can effectivel y complete their work.	The system can generate report and informatio n effectively	The system can generate report but somehow still need extra work to finalized properly	The system can help complete the work but still requires a lot of manual intervention	The system somehow can help a little bit to complete work	The system cannot help effectively to complete work	

3.	Using the system, user is able to complete their work quickly.	The system can complete work quickly	The system can complete their work but somehow still need extra effort to finalized properly	The system can help complete the work but still requires a lot of manual intervention	The system somehow can help a little bit complete their work slowly	The system cannot complete their work	
4.	It was easy to learn to use the system	Has bigger distinct clickable buttons/a reas. User can easily navigate/ use even without the help of an IT assistant	Has small distinct clickable buttons/ar eas that the user can easily to navigate/us e even without the help of an IT assistant	Has lots of small distinct clickable buttons/area s that the user can easily to navigate/use even without the help of an IT assistant	Has lots of small clickable buttons/are as but not that the user can easily to navigate/us e even without the help of an IT assistant	There are lots of complicat ed clickable buttons/ areas. User has difficulty in navigatin g/using the system and needs help of an IT assistant	
5.	The informati on (such as online help, on- screen messages , and other documen tation) provided with this system is clear	Provides hints/info rmation about the usage of every fields, form and clickable area, and has help files that contain general informatio	Provides hints/infor mation about the usage of every fields and forms, and has help files that contain most of the information and instruction.	Provides hints/inform ation about the usage of every fields. Also, it has help files that contain some information and instruction	Cryptic and ambiguous error messages and information are displayed by the system	No messages at all	

n and			
instructio			
n.			

Based on: Ramezan, M. (2009) *Measuring the effectiveness of human resource information systems in national iraninan oil company and impirical assessment.* **Iranian Journal of Management Studies (IJMS)** 2:2, 129-145.

C. Information Quality

		5	4	3	2	1	Score
1.	The	Generates	Generates	Generates 60%	Generates	Cannot	
	informatio	100%	80% exact	exact	50% exact	generate	
	n	exact	informatio	information/r	information	accurate	
	provided	informatio	n/report	eport	/report	informatio	
	by the	n/report	according	according to	according to	n / report	
	system is	according	to the	the request.	the request.	according	
	accurate.	to the	request.			to the	
		request.				request.	
2.	The	Generates	Generates	Generates 60%	Generates	Cannot	
	informatio	100%	80%	complete	50%	generate	
	n	complete	complete	information/r	complete	complete	
	provided	informatio	informatio	eport	information	informatio	
	by the	n/report	n/report	according to	/report	n / report	
	system is	according	according	the request	according to	according	
	complete.	to the	to the		the request	to the	
		request.	request			request	
3.	The	Generates	Generates	Generates	Generates	Generates	
	informatio	informatio	informatio	information/r	information	informatio	
	n	n/report	n/report	eport	/report	n/report	
	provided	according	according	according to	according to	according	
	by the	to the	to the	the request	the request	to the	
	system is	request	request	with 2	with 2-	request	
	on time.	with 30	with 1-	minutes	minutes and	with 3-	
		secs	minute	interval	30 seconds	minutes	
		interval	interval		interval	interval	
4.	The	Generates	A little bit	Plain but	With a little	Obscured	
	informatio	informatio	of clarity	understandabl	bit of	reporting	
1	n	n/report	on the	e reporting	obscurity in	and other	
1	provided	that is	reports	and system	the report	informatio	
	by the	clearly	and	information	and	n	
	system is	relates	informatio	generated by	information	generated	
	understan	according	n	the system	generated by	by the	

	dable.	to the request. It includes several supportin g details.	generated by the system		the system	system	
5.	The volume of informatio n provided by the system is appropria	Generates 100% appropria te informati on/report according to the	Generates 80% appropriat e informatio n/report according to the	Generates 60% appropriate information/r eport according to the request	Generates 50% appropriate information /report according to the request	Cannot generate informatio n according to the request	
	te.	request	request				

V. User Satisfaction of the System

Direction: Please indicate your response on the box provided using the following scale:

- 5 Extremely Satisfied
- 4 Highly Satisfied
- 3 Moderately Satisfied
- 2 Slightly Satisfied
- 1 Not Satisfied

A. Syst Qua	tem ality	5	4	3	2	1	Score
1. I am	n satisfied	Complete	Minor	Some	Erroneou	Not	
with	h the	necessary	missing	functionalit	S	function	
func	ctionality of	functions and	functionality	y and	functiona	al at all	
the s	system.	reporting	and reporting	reports	lity		
				yield			
				different			
				from what			
				is expected			

2.	I am satisfied with the reliability of the system.	Correct and reliable reports and information generated by the system	Correct and reliable reports and information generated by the system but in a wrong format/ arrangement	Some reports display different information	Lot of erroneou s informati on with wrong design and format	Not reliable at all
3.	I am satisfied with the efficiency of the system.	System is efficient and effective	System is efficient and effective with a little bit of manual intervention	System is somehow efficient in the transaction and reporting	Lots of functions and reporting are not efficient	Not efficient at all
В.	System Usability	5	4	3	2	1
4.	I am satisfied with how the system is easy to use.	Simple to use, tools are well - organized, requires minimal explanation for how to use it and does not malfunction or crash	Simple to use but needs a little time for familiarity of the menus and functionalitie s	A lot of time is needed to familiarize the system due to scattered and not organized menus and functions.	Difficult and confusin g to use due to not organize d menus and functions and not informati ve screens and designs.	Really very difficult to use
5.	I am satisfied with the interface of the system.	Plain, organized and self- explanatory design and interfaces	Plain design with minimal learning curve needed to familiarize	Plain design but menus and functions are not well organized	Simple designs but with little confusin g interfaces	Interface are confusin g and not well organize d
6.	I am satisfied	System meet	System meets	System	A lot of	System

	with the purpose of the system.	all its purpose and intended results and information	almost all purpose and intended results but still missing some minor information	meets minor purpose and its intended results bit a lot of missing	features and function did not meet its purpose and intended	totally did not meet its intended purpose and results	
				features	results		
C.	Information Quality	5	4	3	2	1	
4.	The information on the system is always timely.	System can generate correct report and information in real-time	System needs a little time for batch data sync before it can generate report and information	Occasionall y takes some time in generating reports and information	Reports and informati on generate d by the system takes a lot of time	Reports and informat ion generate d by the system is really not timely	
5.	The information on the system is always accurate.	Generate accurate reports and information	Generate accurate reports but with some incorrect design format	Most reports generated are accurate but there are some which are lacking content and info	Some reports are not accurate	System generate not accurate informat ion and reports	
6.	The information on the system is usually relevant.	Generates relevant information according to the request	Generates relevant information but in wrong design format	Generates lacking information	Generate s lacking informati on in wrong design format	Informat ion generate d are not relevant at all	

Based on: Ajoye, M. B. (2014) *Information Systems User Satisfaction: A Survey of the Postgraduate School Portal, University of Ibadan, Nigeria*. Library and Practice (E-journal). Thank you for your cooperation and time in answering the evaluation form.

The Researcher

QUESTIONNAIRE FOR COLLEGES

I. Personal Background

Direction: Kindly provide the necessary data asked by writing your answers on the space provided.

Department/Office: _____

II. Knowledge Learned about the SIAS Feature

Direction: Please indicate your response on the box by putting a check (/) on the space provided using the following scale:

- 5 Excellent (Able to teach someone else)
- 4 Good (Able to practice independently)
- 3 Average (Has some experience but still requires supervision)
- 2 Fair (Know something but no experience)
- 1 Poor (Know nothing)

	A. Setup	5	4	3	2	1
1.	User-defined					
	credentials/admission documents					
2.	Monitoring of submission of					
	credentials/admission documents					
3.	Summary report on					
	submitted/unsubmitted					
	documents required for					
	graduation					
4.	User-defined periods on code,					
	description, enrollment,					
	adding/dropping & validation					
5.	User-defined grading terms for					
	any period like Prelim, Midterm,					
	etc.					
6.	User-defined table for the					
	transmutation of grades from					

r			1	r	1
	other grading systems like SUC				
	(1.0, 3.0, etc), Percentile (75, 98,				
	etc), Ateneo (A+,B-, etc), La Salle				
	(4.0, 3.0, etc), and others				
7.	User-defined courses and form-9				
	categorization per course				
8.	User-defined subjects on code,				
0.	course no., description, units,				
	tuition, lec, lab, hours				
9	Facility to easily arrange the				
).	subjects globally based on				
	classification				
10			1		
10.	Pre-requisites, co-requisites,				
	equivalence can be defined on				
	each subject				
11.	Easy access to				
	shared/synchronized subjects				
	among all courses and curricula				
12.	User-defined curricula with				
	support effectivity year				
13.	Change of Code/Name				
	Authorization Protection				
В.	Class Schedule / Enrollment				
1.	Entry of class schedule which				
	automatically detects conflicts				
2.	Class schedule supports multiple				
	rooms and/or teachers per class				
3.	Facility to copy schedules of one				
0.	class or whole period to another				
	period				
1	Automatic generation of minimal				
т.	class codes for fast encoding of				
	enrollment				
-					
5.	Facility to limit, freeze, unfreeze				
	or dissolve enrollment in any				
	section or class				
6.	Generates rooms assignment				
	(tabular) and utilization (color				
	coded) reports				
7.	Creation of student accounts with				
	automatic permanent or				
	temporary ID				
	· · ·				

0			
8.	Facility to merge a duplicate		
	student account (including all its		
	transactions) into the original		
	account so that the duplicate		
	account can then be deleted.		
9.	Integrated smartcard reader for		
	student identification (no need to		
	type student ID)		
10.	Facility to import all student ID		
	pictures stored in a folder		
11.	Enrollment: Identification for		
	New, Freshman, Returnee,		
	Shiftee, Graduating, Transferee,		
	Cross Enrollee, Foreigner, etc.		
12	Encoding of enrolled subjects by		
	block section for regular students		
13.	Use class codes (separated by		
	space entered in one line only) for		
	irregular students		
14	Automatically finds available		
	schedules for the problematic		
	subjects of student		
15	Automatically computes and		
	prints student assessment after		
	encoding		
16	Adding and dropping of subjects		
	with automatic re-assessment		
17	Transfer students from one class		
	to another or subjects of student		
	to another section		
18	Saves student performance,		
	absences and violations		
19	Viewing and printing of Student		
	Profile		
C.	Grades		
1.	Entry of grades by teacher or		
- •	registrar through network		
2.	Controlled editing of grades		
∠.	through authorization and		
1	privilege		
3.			
5.			
	the system for auditing		

4.	Export and import grades encoded in MS Excel by teacher or department			
5.	Supports standard grading systems of SUCs, Ateneo, La Salle, Percentile, etc.			
6.	Can input grades in all terms such as Prelim, Midterm & Finals with option to automatically compute the Final Grade			
7.	Entry of external grades (transferees) using original codes, descriptions, grades and grading system			
8.	Generates periodic average for the determination of academic achievers			
9.	Generates general weighted average (GWA) from any period to any period			
10.	Monitoring and replacement of incomplete (INC) to a failed grade value			
11.	Monitoring of teacher's progress in grade entry (finished/unfinished) with pass/fail statistics for management action			
D.	Reports			
1.	Generates report on encoded grades that were not enrolled by students			
2.	Generates report on candidates for graduation with summary on unfinished subjects and lacking documents.			
3.	Prints all enrollment reports like masterlist, enrollment list, etc.			
4.	Masterlist provides additional info on units (lec/lab) with filter options by level, department, course, year, gender,			

			I.		I.	
	classifications (new, old,					
	freshmen, returnee, shifter,					
	regular, graduating, cross					
	enrollee, transfee, etc.)					
5.	Generates official class list or					
	control sheet by department,					
	teacher or subject					
6.	Report on all enrolled students on					
	a particular subject(s)					
7.	Generates instructors loads and					
	teachers programs with info on					
	class sizes					
8.	Report on					
	laboratory/professional subjects					
	with info on related charges					
9.	Real-time statistics on enrollment					
	data for management monitoring					
10.	Prints general schedule with filter					
	on open, closed, newly open,					
	dissolved classes					
11.	Statistical reports on enrollment					
	by subject, credits earned,					
	lecture/laboratory units and head					
	count (FTE)					
12.	Summary reports on					
	reserved/confirmed, old/new					
	and gender all can be displayed					
	by course, department with year					
	level in columns					
13.	Prints Certifications of					
	Enrollment, Billing and Grades					
L	, 0	1	I	1		1

III. Attendance to Training

Direction: Kindly provide the necessary data asked by putting a check (/) on the space provided.

	Yes	No	Not Sure
1. Did the administration conducted training on			
how to manipulate/use the system?			
2. Did you attend the training?			

IV. Effectiveness of the System

Direction: Please indicate your response on the box provided using the following scale:

- 5 Extremely Effective
- 4 Highly Effective
- 3 Moderately Effective
- 2 Slightly Effective

1 – Not Effective

A. System Quality

		5	4	3	2	1	Score
1.	The	Includes all	Includes all	Includes	Includes	Cannot	
	system	the reports	the reports	some of the	basic	integrate	
	presents	needed by	on financial	financial	financial	reports	
	integrate	the	information	reporting but	reporting		
	d reports.	university/	but cannot	cannot be	only		
		students on	be updated	updated			
		financial					
		reporting					
		with future					
		additional					
		report					
		capability					
2.	The	With	With User	With user	With fixed	No User	
	system	Secured	Security	security but	username	Security at	
	limits to	User	and Level	without user	and	all	
	unauthori	security	Access	level access	password		
	zed	and User	Right	right			
	access.	Level					
		Access					

		Right					
3.	The system generates result according to the request.	All expected results are generated according to requests	Almost all expected results are generated but some are missing	Half of the request generates expected results and half are missing or with something wrong	The system generate result which are different from the request	No result at all	
4.	The results generated by the system is accurate.	All generated results are accurate	Almost all generated results are accurate	Only half of the generated results are accurate	Most of the generated results are NOT accurate	No results generated at all	
5.	The system is capable to interact with one or more specified systems	Compatible and upgradable to online version anytime. Future update can be integrated seamlessly	Compatible and upgradable to online version sometime. Difficulties in integrating future updates	Compatible but not upgradable to online version anytime. Has fix functionalities and cannot be updated with future integration	Not compatible but upgradable to online version anytime	Not compatible and not upgradable to online version anytime	

B. System Usability

	5	4	3	2	1	Score
1. The system is simple to use.	Interface is not complex providing quick access to common features	Menu and functions are somehow group to functionalit y but still has some	Plain and crude interface and menu navigation	Obscured menu navigation and interfaces	Very crude and obscured interface and system navigatio n	

		or	novigation				
		or command	navigation difficulties				
2.	Using the system, user can effectivel y complete their work.	The system can generate report and informatio n effectively	The system can generate report but somehow still need extra work to finalized properly	The system can help complete the work but still requires a lot of manual intervention	The system somehow can help a little bit to complete work	The system cannot help effectively to complete work	
3.	Using the system, user is able to complete their work quickly.	The system can complete work quickly	The system can complete their work but somehow still need extra effort to finalized properly	The system can help complete the work but still requires a lot of manual intervention	The system somehow can help a little bit complete their work slowly	The system cannot complete their work	
4.	It was easy to learn to use the system	Has bigger distinct clickable buttons/a reas. User can easily navigate/ use even without the help of an IT assistant	Has small distinct clickable buttons/ar eas that the user can easily to navigate/us e even without the help of an IT assistant	Has lots of small distinct clickable buttons/area s that the user can easily to navigate/use even without the help of an IT assistant	Has lots of small clickable buttons/are as but not that the user can easily to navigate/us e even without the help of an IT assistant	There are lots of complicat ed clickable buttons/ areas. User has difficulty in navigatin g/using the system and needs help of an IT assistant	
5.	The informati on (such as online	Provides hints/info rmation about the	Provides hints/infor mation about the	Provides hints/inform ation about the usage of	Cryptic and ambiguous error messages	No messages at all	

help, on-	usage of	usage of	every fields.	and	
screen	every	every fields	Also, it has	information	
messages	fields,	and forms,	help files that	are	
, and	form and	and has	contain some	displayed by	
other	clickable	help files	information	the system	
documen	area, and	that contain	and		
tation)	has help	most of the	instruction		
provided	files that	information			
with this	contain	and			
system is	general	instruction.			
clear	informatio				
	n and				
	instructio				
	n.				

Based on: Ramezan, M. (2009) *Measuring the effectiveness of human resource information systems in national iraninan oil company and impirical assessment*. **Iranian Journal of Management Studies (IJMS)** 2:2, 129-145.

C. Information Quality

		5	4	3	2	1	Score
1.	The	Generates	Generates	Generates 60%	Generates	Cannot	
	informatio	100%	80% exact	exact	50% exact	generate	
	n	exact	informatio	information/r	information	accurate	
	provided	informatio	n/report	eport	/report	informatio	
	by the	n/report	according	according to	according to	n / report	
	system is	according	to the	the request.	the request.	according	
	accurate.	to the	request.			to the	
		request.				request.	
2.	The	Generates	Generates	Generates 60%	Generates	Cannot	
	informatio	100%	80%	complete	50%	generate	
	n	complete	complete	information/r	complete	complete	
	provided	informatio	informatio	eport	information	informatio	
	by the	n/report	n/report	according to	/report	n / report	
	system is	according	according	the request	according to	according	
	complete.	to the	to the		the request	to the	
		request.	request			request	
3.	The	Generates	Generates	Generates	Generates	Generates	
	informatio	informatio	informatio	information/r	information	informatio	
	n	n/report	n/report	eport	/report	n/report	
	provided	according	according	according to	according to	according	
	by the	to the	to the	the request	the request	to the	

	system is	request	request	with 2	with 2-	request
	on time.	with 30	with 1-	minutes	minutes and	with 3-
	on time.	secs	minute	interval	30 seconds	minutes
		interval	interval	interval	interval	interval
4	TT1			Plain but		
4.	The	Generates	A little bit		With a little	Obscured
	informatio	informatio	of clarity	understandabl	bit of	reporting
	n	n/report	on the	e reporting	obscurity in	and other
	provided	that is	reports	and system	the report	informatio
	by the	clearly	and	information	and	n
	system is	relates	informatio	generated by	information	generated
	understan	according	n	the system	generated by	by the
	dable.	to the	generated		the system	system
		request. It	by the			
		includes	system			
		several	-			
		supportin				
		g details.				
5.	The	Generates	Generates	Generates 60%	Generates	Cannot
	volume of	100%	80%	appropriate	50%	generate
	informatio	appropria	appropriat	information/r	appropriate	informatio
	n	te	e	eport	information	n
	provided	informati	informatio	according to	/report	according
	by the	on /report	n /report	the request	according to	to the
	system is	according	according	-	the request	request
1	appropria	to the	to the			
	te.	request	request			

V. User Satisfaction of the System

Direction: Please indicate your response on the box provided using the following scale:

- 5 Extremely Satisfied
- 4 Highly Satisfied
- 3 Moderately Satisfied
- 2 Slightly Satisfied
- 1 Not Satisfied

A.	System Quality	5	4	3	2	1	Score
1.	I am satisfied with	Complete	Minor	Some	Erroneous	Not	
	the functionality of	necessary	missing	functionalit	functionali	function	
	the system.	functions	functionality	y and	ty	al at all	
		and	and reporting	reports			
		reporting		yield			
				different			
				from what			
				is expected			
2.	I am satisfied with	Correct and	Correct and	Some	Lot of	Not	
	the reliability of	reliable	reliable	reports	erroneous	reliable	
	the system.	reports and	reports and	display	informatio	at all	
		information	information	different	n with		
		generated	generated by	information	wrong		
		by the	the system		design and		
		system	but in a		format		
			wrong				
			format/				
3	I am satisfied with	System is	arrangement System is	System is	Lots of	Not	
5.	the efficiency of	System is efficient	efficient and	somehow	functions	efficient	
	the system.	and	effective with	efficient in	and	at all	
	the system.	effective	a little bit of	the	reporting	ut un	
		chiccure	manual	transaction	are not		
			intervention	and	efficient		
				reporting			
В.	System Usability	5	4	3	2	1	Score
1.	I am satisfied with	Simple to	Simple to use	A lot of	Difficult	Really	
	how the system is	use, tools	but needs a	time is	and	very	
	easy to use.	are well -	little time for	needed to	confusing	difficult	
		organized,	familiarity of	familiarize	to use due	to use	
		requires	the menus	the system	to not		
		minimal	and	due to	organized		
		explanation	functionalities	scattered	menus and		
		for how to		and not	functions		
1		use it and		organized	and not		
		does not		menus and	informativ		
1		malfunction		functions.	e screens		
		or crash			and		
	T (* (* 1 * 1	D1 ·		D1 :	designs.	T t f	
2.	I am satisfied with	Plain,	Plain design	Plain	Simple	Interface	
	the interface of the	organized	with minimal	design but	designs but	are	
	system.	and self-	learning	menus and	with little	confusin	

3.	I am satisfied with the purpose of the system.	explanatory design and interfaces System meet all its purpose and intended results and information	curve needed to familiarize System meets almost all purpose and intended results but still missing some minor information	functions are not well organized System meets minor purpose and its intended results bit a lot of missing features	confusing interfaces A lot of features and function did not meet its purpose and intended results	g and not well organize d System totally did not meet its intended purpose and results	
C.	Information Quality	5	4	3	2	1	Score
1.	The information on the system is always timely.	System can generate correct report and information in real-time	System needs a little time for batch data sync before it can generate report and information	Occasionall y takes some time in generating reports and information	Reports and informatio n generated by the system takes a lot of time	Reports and informat ion generate d by the system is really not timely	
2.	The information on the system is always accurate.	Generate accurate reports and information	Generate accurate reports but with some incorrect design format	Most reports generated are accurate but there are some which are lacking content and info	Some reports are not accurate	System generate not accurate informat ion and reports	
3.	The information on the system is usually relevant.	Generates relevant information according to the request	Generates relevant information but in wrong design format	Generates lacking information	Generates lacking informatio n in wrong design format	Informat ion generate d are not relevant at all	

Based on: Ajoye, M. B. (2014) *Information Systems User Satisfaction: A Survey of the Postgraduate School Portal, University of Ibadan, Nigeria.* Library and Practice (E-journal).

VI. Recommendations and Suggestions

Thank you for your cooperation and time in answering the evaluation form.

The Researcher

QUESTIONNAIRE FOR FACULTY

I. Personal Background

Direction: Kindly provide the necessary data asked by writing your answers on the space provided.

Department/Office: _____

II. Knowledge Learned about the SIAS Feature

Direction: Please indicate your response on the box by putting a check (/) on the space provided using the following scale:

- 5 Excellent (Able to teach someone else)
- 4 Good (Able to practice independently)
- 3 Average (Has some experience but still requires supervision)
- 2 Fair (Know something but no experience)
- 2 Poor (Know nothing)
- 1 Poor (Know nothing)

	Grades	5	4	3	2	1
1.	Entry of grades by					
	teacher or registrar					
	through network.					
2.	Controlled editing of					
	grades through					
	authorization and					
	privileged.					
3.	Changes to grades are					
	logged by the system for					
	auditing.					
4.	Exports and import					
	grades encoded in MS					
	Excel by teacher or					
	department.					
5.	Supports standard					
	grading systems of SUCs					
	(Ateneo, La Salle,					

	Percentile, etc.).			
6	Can input grades in all			
0.	terms such as Prelim,			
	Midterm and Finals with			
	option to automatically			
	compute the Final Grade.			
7	Entry of external grades			
1.	(transferees) using			
	original codes,			
	descriptions, grades and			
	grading system.			
8.	Generates periodic			
0.	average for the			
	determination of			
	academic achievers.			
9.	Generates general			
	weighted average (GWA)			
	from any period to any			
	period.			
10.	Monitoring and			
	replacement of			
	incomplete (INC) to a			
	failed grade value.			
11.	Monitoring of teachers'			
	progress in grade entry			
	(finished/unfinished)			
	with pass/fail statistics			
	for management action.			
12.	Automatically evaluate			
	students based on their			
	respective curriculum.			
13.	Automatic crediting of			
	internal and equivalent			
	subjects.			
14.	System assisted crediting			
	of external subjects (from			
	other schools).			

III. Attendance to Training

Direction: Kindly provide the necessary data asked by putting a check (/) on the space provided.

	Yes	No	Not Sure
1. Did the administration conducted training on			
how to manipulate/use the system?			
2. Did you attend the training?			

IV. Effectiveness of the System

Direction: Please indicate your response on the box provided using the following scale:

- 5 Extremely Effective
- 4 Highly Effective
- 3 Moderately Effective
- 2 Slightly Effective

2 – Not Effective

A. System Quality

		5	4	3	2	1	Score
1.	The	Includes all	Includes all	Includes	Includes	Cannot	
	system	the reports	the reports	some of the	basic	integrate	
	presents	needed by	on financial	financial	financial	reports	
	integrate	the	information	reporting but	reporting		
	d reports.	university/	but cannot	cannot be	only		
		students on	be updated	updated			
		financial					
		reporting					
		with future					
		additional					
		report					
		capability					
2.	The	With	With User	With user	With fixed	No User	
	system	Secured	Security	security but	username	Security at	
	limits to	User	and Level	without user	and	all	
	unauthori	security	Access	level access	password		
	zed	and User	Right	right			
	access.	Level					
		Access					

		Right					
3.	The system generates result according to the request.	All expected results are generated according to requests	Almost all expected results are generated but some are missing	Half of the request generates expected results and half are missing or with something wrong	The system generate result which are different from the request	No result at all	
4.	The results generated by the system is accurate.	All generated results are accurate	Almost all generated results are accurate	Only half of the generated results are accurate	Most of the generated results are NOT accurate	No results generated at all	
5.	The system is capable to interact with one or more specified systems	Compatible and upgradable to online version anytime. Future update can be integrated seamlessly	Compatible and upgradable to online version sometime. Difficulties in integrating future updates	Compatible but not upgradable to online version anytime. Has fix functionalities and cannot be updated with future integration	Not compatible but upgradable to online version anytime	Not compatible and not upgradable to online version anytime	

B. System Usability

	5	4	3	2	1	Score
1. The system is simple to use.	Interface is not complex providing quick access to common features or command	Menu and functions are somehow group to functionality but still has some navigation difficulties	Plain and crude interface and menu navigation	Obscured menu navigation and interfaces	Very crude and obscured interface and system navigatio n	

2.	Using the system, user can effectivel y complete their work.	The system can generate report and informatio n effectively	The system can generate report but somehow still need extra work to finalized properly	The system can help complete the work but still requires a lot of manual intervention	The system somehow can help a little bit to complete work	The system cannot help effectively to complete work
3.	Using the system, user is able to complete their work quickly.	The system can complete work quickly	The system can complete their work but somehow still need extra effort to finalized properly	The system can help complete the work but still requires a lot of manual intervention	The system somehow can help a little bit complete their work slowly	The system cannot complete their work
4.	It was easy to learn to use the system	Has bigger distinct clickable buttons/a reas. User can easily navigate/ use even without the help of an IT assistant	Has small distinct clickable buttons/ar eas that the user can easily to navigate/us e even without the help of an IT assistant	Has lots of small distinct clickable buttons/area s that the user can easily to navigate/use even without the help of an IT assistant	Has lots of small clickable buttons/are as but not that the user can easily to navigate/us e even without the help of an IT assistant	There are lots of complicat ed clickable buttons/ areas. User has difficulty in navigatin g/using the system and needs help of an IT assistant
5.	The informati on (such as online help, on- screen	Provides hints/info rmation about the usage of every	Provides hints/infor mation about the usage of every fields	Provides hints/inform ation about the usage of every fields. Also, it has	Cryptic and ambiguous error messages and information	No messages at all

messages	fields,	and forms,	help files that	are	
, and	form and	and has	contain some	displayed by	
other	clickable	help files	information	the system	
documen	area, and	that contain	and	-	
tation)	has help	most of the	instruction		
provided	files that	information			
with this	contain	and			
system is	general	instruction.			
clear	informatio				
	n and				
	instructio				
	n.				

Based on: Ramezan, M. (2009) *Measuring the effectiveness of human resource information systems in national iraninan oil company and impirical assessment.* **Iranian Journal of Management Studies (IJMS)** 2:2, 129-145.

C. Information Quality

		5	4	3	2	1	Score
1.	The	Generates	Generates	Generates 60%	Generates	Cannot	
	informatio	100%	80% exact	exact	50% exact	generate	
	n	exact	informatio	information/r	information	accurate	
	provided	informatio	n/report	eport	/report	informatio	
	by the	n/report	according	according to	according to	n / report	
	system is	according	to the	the request.	the request.	according	
	accurate.	to the	request.			to the	
		request.				request.	
2.	The	Generates	Generates	Generates 60%	Generates	Cannot	
	informatio	100%	80%	complete	50%	generate	
	n	complete	complete	information/r	complete	complete	
	provided	informatio	informatio	eport	information	informatio	
	by the	n/report	n/report	according to	/report	n / report	
	system is	according	according	the request	according to	according	
	complete.	to the	to the		the request	to the	
		request.	request			request	
3.	The	Generates	Generates	Generates	Generates	Generates	
	informatio	informatio	informatio	information/r	information	informatio	
	n	n/report	n/report	eport	/report	n/report	
	provided	according	according	according to	according to	according	
	by the	to the	to the	the request	the request	to the	
	system is	request	request	with 2	with 2 -	request	
	on time.	with 30	with 1-	minutes	minutes and	with 3-	

		secs	minute	interval	30 seconds	minutes
		interval	interval		interval	interval
4.	The	Generates	A little bit	Plain but	With a little	Obscured
	informatio	informatio	of clarity	understandabl	bit of	reporting
	n	n/report	on the	e reporting	obscurity in	and other
	provided	that is	reports	and system	the report	informatio
	by the	clearly	and	information	and	n
	system is	relates	informatio	generated by	information	generated
	understan	according	n	the system	generated by	by the
	dable.	to the	generated		the system	system
		request. It	by the			
		includes	system			
		several				
		supportin				
		g details.				
5.		Generates	Generates	Generates 60%	Generates	Cannot
	volume of	100%	80%	appropriate	50%	generate
	informatio	appropria	appropriat	information/r	appropriate	informatio
	n	te	e	eport	information	n
	provided	informati	informatio	according to	/report	according
	by the	on /report	n /report	the request	according to	to the
	system is	according	according		the request	request
	appropria	to the	to the			
	te.	request	request			

V. User Satisfaction of the System

Direction: Please indicate your response on the box provided using the following scale:

- 5 Extremely Satisfied
- 4 Highly Satisfied
- 3 Moderately Satisfied
- 2 Slightly Satisfied
- 1 Not Satisfied

А.	System Quality	5	4	3	2	1	Score
1.	I am satisfied with	Complete	Minor	Some	Erroneous	Not	
	the functionality of	necessary	missing	functionalit	functional	function	
	the system.	functions	functionality	y and	ity	al at all	
		and	and reporting	reports			
		reporting		yield			
				different			
				from what			
				is expected			
2.	I am satisfied with	Correct and	Correct and	Some	Lot of	Not	
	the reliability of	reliable	reliable	reports	erroneous	reliable	
	the system.	reports and	reports and	display	informatio	at all	
		information	information	different	n with		
		generated	generated by	information	wrong		
		by the	the system but in a		design and		
		system			format		
			wrong format/		Tormat		
			arrangement				
3	I am satisfied with	System is	System is	System is	Lots of	Not	
5.	the efficiency of	efficient	efficient and	somehow	functions	efficient	
	the system.	and	effective with	efficient in	and	at all	
	j	effective	a little bit of	the	reporting		
			manual	transaction	are not		
			intervention	and	efficient		
				reporting			
В.	System Usability	5	4	3	2	1	Score
1.	I am satisfied with	Simple to	Simple to use	A lot of	Difficult	Really	
	how the system is	use, tools	but needs a	time is	and	very	
	easy to use.	are well -	little time for	needed to	confusing	difficult	
		organized,	familiarity of	familiarize	to use due	to use	
		requires	the menus	the system	to not		
1		minimal	and	due to	organized		
1		explanation	functionalities	scattered	menus		
		for how to		and not	and		
1		use it and		organized	functions and not		
1		does not malfunction		menus and functions.	informativ		
		or crash			e screens		
					and		
1					designs.		
2.	I am satisfied with	Plain,	Plain design	Plain	Simple	Interface	
<u> </u>	the interface of the	organized	with minimal	design but	designs	are	

		1 10	1 •	1	11	<i>c</i> ·	
	system.	and self-	learning curve needed	menus and functions	but with little	confusin	
		explanatory design and	to familiarize	are not well	confusing	g and not well	
		interfaces	to failinarize	organized	interfaces	organize	
		interfaces		organized	interfaces	d	
3.	I am satisfied with	System	System meets	System	A lot of	System	
	the purpose of the	meet all its	almost all	meets	features	totally	
	system.	purpose	purpose and	minor	and	did not	
		and	intended	purpose	function	meet its	
		intended	results but	and its	did not	intended	
		results and	still missing	intended	meet its	purpose	
		information	some minor	results bit a	purpose	and	
			information	lot of	and	results	
				missing	intended		
C	Information			features	results		
Ċ.	Information Quality	5	4	3	2	1	Score
1.	The information	System can	System needs	Occasionall	Reports	Reports	
	on the system is	generate	a little time	y takes	and	and	
	always timely.	correct	for batch data	some time	informatio	informat	
		report and	sync before it	in	n	ion	
		information	can generate	generating	generated	generate	
		in real-time	report and	reports and	by the	d by the	
			information	information	system	system	
					takes a lot	is really	
					of time	not	
					2	timely	
2.	The information	Generate	Generate	Most	Some	System	
	on the system is	accurate	accurate	reports	reports	generate	
	always accurate.	reports and	reports but	generated	are not	not	
		information	with some	are accurate	accurate	accurate	
			incorrect	but there		informat	
			design format	are some		ion and	
				which are		reports	
				lacking			
				content and			
3.	The information	Generates	Generates	info Generates	Generates	Informat	
5.	on the system is	relevant	relevant	lacking	lacking	ion	
	usually relevant.	information	information	information	informatio	generate	
	abuany recevant.	according	but in wrong		n in wrong	d are not	
		to the	design format		design	relevant	
		request			format	at all	
		request	l			atan	

Based on: Ajoye, M. B. (2014) Information Systems User Satisfaction: A Survey of the Postgraduate School Portal, University of Ibadan, Nigeria. Library and Practice (E-journal).

VI. Recommendations and Suggestions

Thank you for your cooperation and time in answering the evaluation form.

The Researcher

QUESTIONNAIRE FOR OFFICE OF THE STUDENT AFFAIRS AND SERVICES

I. Personal Background

Direction: Kindly provide the necessary data asked by writing your answers on the space provided.

Department/Office: _____

II. Knowledge Learned about the SIAS Feature

Direction: Please indicate your response on the box by putting a check (/) on the space provided using the following scale:

- 5 Excellent (Able to teach someone else)
- 4 Good (Able to practice independently)
- 3 Average (Has some experience but still requires supervision)
- 2 Fair (Know something but no experience)
- 1 Poor (Know nothing)

	Discounts/Scholarship	5	4	3	2	1
1.	Supports multiple					
	discounts/scholarship					
	grants availed by single					
	student					
2.	User-defined					
	discounts/scholarships and					
	classifications					
3.	Option to define internal					
	and external scholarships					
4.	Option for grantees that will					
	be automatically validated					
	even without payment					
5.	User-defined options on					
	maximum units, rates on					
	tuition, misc, lab, others and					
	for fixed amount.					
6.	Option to include or exclude					
	specific fees in the					

	computation.			
7.	Entry of			
	discount/scholarship			
	grantees with option to			
	automatically compute			
8.	Distribution of payment to			
	grantees from the amount			
	paid by sponsor			
9.	Automatically			
	debits/credits to the			
	receivable ledgers of			
	sponsors			
10	. Reports on List of Grantees,			
	Tuition & Other Discounts,			
	Summary of			
	Discounts/Scholarships,			
	Detailed Report on			
	Discount/Scholarships with			
	distribution on affected fees			
	and Summary on Collected			
	Fees			

III. Attendance to Training

Direction: Kindly provide the necessary data asked by putting a check (/) on the space provided.

		Yes	No	Not Sure
1.	Did the administration conducted training on			
	how to manipulate/use the system?			
2.	Did you attend the training?			

IV. Effectiveness of the System

Direction: Please indicate your response on the box provided using the following scale:

- 5 Extremely Effective
- 4 Highly Effective
- 3 Moderately Effective
- 2 Slightly Effective
- 1 Not Effective

Α.	System	Quality
		5

	v	5	4	3	2	1	Score
1.	The system presents integrated reports.	Includes all the reports needed by the university/ students on financial reporting with future additional report capability	Includes all the reports on financial informatio n but cannot be updated	Includes some of the financial reporting but cannot be updated	Includes basic financial reporting only	Cannot integrate reports	
2.	The system limits to unauthoriz ed access.	With Secured User security and User Level Access Right	With User Security and Level Access Right	With user security but without user level access right	With fixed username and password	No User Security at all	
3.	The system generates result according to the request.	All expected results are generated according to requests	Almost all expected results are generated but some are missing	Half of the request generates expected results and half are missing or with something wrong	The system generate result which are different from the request	No result at all	
4.	The results generated	All generated	Almost all generated	Only half of the	Most of the generated	No results generated	

	by the system is accurate.	results are accurate	results are accurate	generated results are accurate	results are NOT accurate	at all	
5.	The system is capable to interact with one or more specified systems	Compatible and upgradable to online version anytime. Future update can be integrated seamlessly	Compatibl e and upgradabl e to online version sometime. Difficulties in integrating future updates	Compatible but not upgradable to online version anytime. Has fix functionaliti es and cannot be updated with future integration	Not compatibl e but upgradabl e to online version anytime	Not compatibl e and not upgradabl e to online version anytime	

B. System Usability

System Usability	5	4	3	2	1	Score
1. The system is simple to use.	Interface is not complex providin g quick access to common features or comman d	Menu and functions are somehow group to functionalit y but still has some navigation difficulties	Plain and crude interface and menu navigation	Obscured menu navigation and interfaces	Very crude and obscured interface and system navigatio n	
 Using the system, user can effectivel y complete their work. 	The system can generate report and informatio n effectively	The system can generate report but somehow still need extra work to finalized properly	The system can help complete the work but still requires a lot of manual intervention	The system somehow can help a little bit to complete work	The system cannot help effectivel y to complete work	

3.	Using the system, user is able to complete their work quickly.	The system can complete work quickly	The system can complete their work but somehow still need extra effort to finalized properly	The system can help complete the work but still requires a lot of manual intervention	The system somehow can help a little bit complete their work slowly	The system cannot complete their work
4.	It was easy to learn to use the system	Has bigger distinct clickable buttons/ areas. User can easily navigate/ use even without the help of an IT assistant	Has small distinct clickable buttons/ar eas that the user can easily to navigate/us e even without the help of an IT assistant	Has lots of small distinct clickable buttons/area s that the user can easily to navigate/use even without the help of an IT assistant	Has lots of small clickable buttons/ar eas but not that the user can easily to navigate/us e even without the help of an IT assistant	There are lots of complica ted clickable buttons/ areas. User has difficulty in navigatin g/using the system and needs help of an IT assistant
5.	The informat ion (such as online help, on- screen message s, and other docume ntation) provide d with this	Provides hints/inf ormation about the usage of every fields, form and clickable area, and has help files that contain general	Provides hints/infor mation about the usage of every fields and forms, and has help files that contain most of the information and instruction.	Provides hints/inform ation about the usage of every fields. Also, it has help files that contain some information and instruction	Cryptic and ambiguous error messages and information are displayed by the system	No messages at all

system is	informati			
clear	on and			
	instructio			
	n.			

Based on: Ramezan, M. (2009) *Measuring the effectiveness of human resource information systems in national iraninan oil company and impirical assessment*. **Iranian Journal of Management Studies (IJMS)** 2:2, 129-145.

C. Information Quality

Ir	formation	5	4	3	2	1	Score
	Quality	5	4	3	2	L	Score
1.	The	Generates	Generates	Generates 60%	Generates	Cannot	
	informatio	100%	80% exact	exact	50% exact	generate	
	n	exact	informatio	information/r	information	accurate	
	provided	informatio	n/report	eport	/report	informatio	
	by the	n/report	according	according to	according to	n / report	
	system is	according	to the	the request.	the request.	according	
	accurate.	to the	request.			to the	
		request.				request.	
2.	4.The	Generates	Generates	Generates 60%	Generates	Cannot	
	informatio	100%	80%	complete	50%	generate	
	n	complete	complete	information/r	complete	complete	
	provided	informatio	informatio	eport	information	informatio	
	by the	n/report	n/report	according to	/report	n / report	
	system is	according	according	the request	according to	according	
	complete.	to the	to the		the request	to the	
		request.	request			request	
3.	The	Generates	Generates	Generates	Generates	Generates	
	informatio	informatio	informatio	information/r	information	informatio	
	n	n/report	n/report	eport	/report	n/report	
	provided	according	according	according to	according to	according	
	by the	to the	to the	the request	the request	to the	
	system is	request	request	with 2	with 2-	request	
	on time.	with 30	with 1-	minutes	minutes and	with 3-	
		secs	minute	interval	30 seconds	minutes	
		interval	interval		interval	interval	
4.	The	Generates	A little bit	Plain but	With a little	Obscured	
	informatio	informatio	of clarity	understandabl	bit of	reporting	
	n	n/report	on the	e reporting	obscurity in	and other	
	provided	that is	reports	and system	the report	informatio	
	by the	clearly	and	information	and	n	

	system is understan dable.	relates according to the request. It includes several supportin g details.	informatio n generated by the system	generated by the system	information generated by the system	generated by the system	
5.	The volume of	Generates 100%	Generates 80%	Generates 60% appropriate	Generates 50%	Cannot generate	
	informatio	appropria	appropriat	information/r	appropriate	informatio	
	n	te	e	eport	information	n	
	provided	informati	informatio	according to	/report	according	
	by the	on /report	n /report	the request	according to	to the	
	system is	according	according		the request	request	
	appropria	to the	to the				
	te.	request	request				

V. User Satisfaction of the System

Direction: Please indicate your response on the box provided using the following scale:

- 5 Extremely Satisfied
- 4 Highly Satisfied
- 3 Moderately Satisfied
- 2 Slightly Satisfied
- 1 Not Satisfied

A. System Quality	5	4	3	2	1	Score
 I am satisfied with the functionality of the system. 	Complete necessary functions and reporting	Minor missing functional ity and reporting	Some function ality and reports yield different from what is expected	Erroneous functional ity	Not functional at all	

4.	I am satisfied with the reliability of the system.	Correct and reliable reports and information generated by the system	Correct and reliable reports and informatio n generated by the system but in a wrong format/ arrangem ent	Some reports display different informat ion	Lot of erroneous informatio n with wrong design and format	Not reliable at all	
5.	I am satisfied with the efficiency of the system.	System is efficient and effective	System is efficient and effective with a little bit of manual interventi on	System is someho w efficient in the transacti on and reportin g	Lots of functions and reporting are not efficient	Not efficient at all	
В.	System Usability	5	4	3	2	1	Score
1.	I am satisfied with how the system is easy to use.	Simple to use, tools are well - organized, requires minimal explanation for how to use it and does not malfunction or crash	Simple to use but needs a little time for familiarity of the menus and functional ities	A lot of time is needed to familiari ze the system due to scattere d and not organize d menus and function s.	Difficult and confusing to use due to not organized menus and functions and not informativ e screens and designs.	Really very difficult to use	

2.	I am satisfied with the interface of the system.	Plain, organized and self- explanatory design and interfaces	Plain design with minimal learning curve needed to familiariz e	Plain design but menus and function s are not well organize d	Simple designs but with little confusing interfaces	Interface are confusing and not well organized	
3.	I am satisfied with the purpose of the system.	System meet all its purpose and intended results and information	System meets almost all purpose and intended results but still missing some minor informatio	System meets minor purpose and its intended results bit a lot of missing features	A lot of features and function did not meet its purpose and intended results	System totally did not meet its intended purpose and results	
1			n				
C.	Information Ouality	5	4	3	2	1	Score
C. 1.	Information Quality The information on the system is always timely.	5 System can generate correct report and information in real-time		3 Occasio nally takes some time in generati ng reports and informat ion	2 Reports and informatio n generated by the system takes a lot of time	1 Reports and informatio n generated by the system is really not timely	Score

			format	some which			
				are			
				lacking			
				content			
				and info			
3.	The	Generates	Generates	Generat	Generates	Informati	
	information on	relevant	relevant	es	lacking	on	
	the system is	information	informatio	lacking	informatio	generated	
	usually	according	n but in	informat	n in	are not	
	relevant.	to the	wrong	ion	wrong	relevant at	
		request	design		design	all	
			format		format		

Based on: Ajoye, M. B. (2014) *Information Systems User Satisfaction: A Survey of the Postgraduate School Portal, University of Ibadan, Nigeria.* Library and Practice (E-journal).

VI. Recommendations and Suggestions

Thank you for your cooperation and time in answering the evaluation form.

The Researcher

QUESTIONNAIRE FOR REGISTRAR'S OFFICE

I. Personal Background

Direction: Kindly provide the necessary data asked by writing your answers on the space provided.

Department/Office: _____

II. Knowledge Learned about the SIAS Feature

Direction: Please indicate your response on the box by putting a check (/) on the space provided using the following scale:

- 5 Excellent (Able to teach someone else)
- 4 Good (Able to practice independently)
- 3 Average (Has some experience but still requires supervision)
- 2 Fair (Know something but no experience)
- 1 Poor (Know nothing)

	A. Setup	5	4	3	2	1
1.	User-defined					
	credentials/admission					
	documents					
2.	Monitoring of submission of					
	credentials/admission					
	documents					
3.	Summary report on					
	submitted/unsubmitted					
	documents required for					
	graduation					
4.	User-defined periods on					
	code, description,					
	enrollment,					
	adding/dropping &					
	validation					
5.	User-defined grading terms					
	for any period like Prelim,					
	Midterm, etc.					

	User-defined table for the transmutation of grades from other grading systems like SUC (1.0, 3.0, etc), Percentile (75, 98, etc), Ateneo (A+,B-, etc), La Salle (4.0, 3.0, etc), and others User-defined courses and form-9 categorization per			
	course			
8.	User-defined subjects on			
	code, course no.,			
	description, units, tuition,			
	lec, lab, hours			
9.	Facility to easily arrange the			
	subjects globally based on			
10	classification			
10.	Pre-requisites, co-requisites,			
	equivalence can be defined on each subject			
11)			
11.	Easy access to			
	shared/synchronized subjects among all courses			
	and curricula			
12	User-defined curricula with			
12.	support effectivity year			
13	Change of Code/Name			
15.	Authorization Protection			
F	Class Schedule/			
1.	Enrollment			
20.	Entry of class schedule			
	which automatically detects			
	conflicts			
21.	Class schedule supports			
	multiple rooms and/or			
	teachers per class			
22.	Facility to copy schedules of			
	one class or whole period to			
	another period			
23.	Automatic generation of			
1	minimal class codes for fast			
	encoding of enrollment			
24.	Facility to limit, freeze,			

(<u>1</u> , 1			
unfreeze or dissolve			
enrollment in any section or			
class			
25. Generates rooms			
assignment (tabular) and			
utilization (color coded)			
reports			
26. Creation of student			
accounts with automatic			
permanent or temporary ID			
27. Facility to merge a duplicate			
student account (including			
all its transactions) into the			
original account so that the			
duplicate account can then			
be deleted.			
28. Integrated smartcard reader			
for student identification			
(no need to type student ID)			
29. Facility to import all			
student ID pictures stored			
in a folder			
30. Enrollment: Identification			
for New, Freshman,			
Returnee, Shiftee,			
Graduating, Transferee,			
Cross Enrollee, Foreigner,			
etc.			
31. Encoding of enrolled			
subjects by block section for			
regular students			
32. Use class codes (separated			
by space entered in one line			
only) for irregular students			
33. Automatically finds			
available schedules for the			
problematic subjects of			
student			
34. Automatically computes			
and prints student			
assessment after encoding			
35. Adding and dropping of			
subjects with automatic re-			
subjects with automatic re-			

assessment					
36. Transfer students from one					
class to another or subjects					
of student to another					
section					
37. Saves student performance,					
absences and violations					
38. Viewing and printing of					
Student Profile					
F. Grades					
12. Entry of grades by teacher					
or registrar through					
network					
13. Controlled editing of grades					
through authorization and					
privilege					
14. Changes to grades are					
logged by the system for					
auditing					
0					
15. Export and import grades					
encoded in MS Excel by					
teacher or department					
16. Supports standard grading					
systems of SUCs, Ateneo,					
La Salle, Percentile, etc.					
17. Can input grades in all					
terms such as Prelim,					
Midterm & Finals with					
option to automatically					
compute the Final Grade					
18. Entry of external grades					
(transferees) using original					
codes, descriptions, grades					
and grading system					
19. Generates periodic average					
for the determination of					
academic achievers					
20. Generates general weighted					
average (GWA) from any					
period to any period					
21. Monitoring and					
replacement of incomplete					
- cpincement of meompiete			L	I	

(INC) to a failed grade				
value				
22. Monitoring of teacher's				
progress in grade entry				
(finished/unfinished) with				
pass/fail statistics for				
management action				
23. Automatically evaluate				
students based on their				
respective curriculum				
24. Automatic crediting of				
internal and equivalent				
subjects				
25. System assisted crediting of				
external subjects (from				
other schools)				
G. Reports				
14. Generates report on				
encoded grades that were				
not enrolled by students				
15. Generates report				
unsubmitted				
credentials/admission				
documents required				
16. Generates report on				
candidates for graduation				
with summary on				
unfinished subjects and				
lacking documents.				
17. Prints diploma of all				
graduating students on the				
fly				
18. Prints all enrollment reports				
like masterlist, enrollment				
list, etc.				
19. Masterlist provides		 		
additional info on units				
(lec/lab) with filter options				
by level, department,				
course, year, gender,				
classifications (new, old,				
freshmen, returnee, shifter,				
regular, graduating, cross				
			1	

enrollee, transfee, etc.)			
20. Generates official class list			
or control sheet by			
department, teacher or subject			
,			
21. Report on all enrolled			
students on a particular			
subject(s) 22. Generates instructors loads			
and teachers programs with info on class sizes			
23. Report on			
laboratory/professional subjects with info on related			
charges			
24. Real-time statistics on			
enrollment data for			
management monitoring			
25. Prints general schedule			
with filter on open, closed,			
newly open, dissolved			
classes			
26. Statistical reports on			
enrollment by subject,			
credits earned,			
lecture/laboratory units			
and head count (FTE)			
27. Summary reports on			
reserved/confirmed,			
old/new and gender all can			
be displayed by course,			
department with year level			
in columns			
28. Prints Certifications of			
Enrollment, Billing and			
Grades			
29. Prints Transcript of			
Records, True Copy of			
Grades, Scholastic Records,			
Form-9 and Diploma			

III. Attendance to Training

Direction: Kindly provide the necessary data asked by putting a check (/) on the space provided.

	Yes	No	Not Sure
1. Did the administration conducted training on			
how to manipulate/use the system?			
2. Did you attend the training?			

IV. Effectiveness of the System

Direction: Please indicate your response on the box provided using the following scale:

- 5 Extremely Effective
- 4 Highly Effective
- 3 Moderately Effective
- 2 Slightly Effective
- 1 Not Effective

A. System Quality

	5	4	3	2	1	Score
1. The system	Includes all	Includes	Includes	Includes	Cannot	
presents	the reports	all the	some of the	basic	integrate	
integrated	needed by	reports on	financial	financial	reports	
reports.	the	financial	reporting	reporting		
	university/	informatio	but cannot	only		
	students on	n but	be updated			
	financial	cannot be				
	reporting	updated				
	with future					
	additional					
	report					
	capability					
3. The system	With	With User	With user	With fixed	No User	
limits to	Secured	Security	security but	username	Security	
unauthoriz	User	and Level	without user	and	at all	
ed access.	security and	Access	level access	password		
	User Level	Right	right			

		Access Right				
4.	The system generates result according to the request.	All expected results are generated according to requests	Almost all expected results are generated but some are missing	Half of the request generates expected results and half are missing or with something wrong	The system generate result which are different from the request	No result at all
5.	The results generated by the system is accurate.	All generated results are accurate	Almost all generated results are accurate	Only half of the generated results are accurate	Most of the generated results are NOT accurate	No results generate d at all
6.	The system is capable to interact with one or more specified systems	Compatible and upgradable to online version anytime. Future update can be integrated seamlessly	Compatibl e and upgradabl e to online version sometime. Difficulties in integrating future updates	Compatible but not upgradable to online version anytime. Has fix functionaliti es and cannot be updated with future integration	Not compatibl e but upgradabl e to online version anytime	Not compati ble and not upgrada ble to online version anytime

B. System Usability

System Usability	5	4	3	2	1	Score
1. The system is simple to use.	Interface is not complex providing quick access to common	Menu and functions are somehow group to functionality but still has some	Plain and crude interface and menu navigation	Obscured menu navigation and interfaces	Very crude and obscured interface and system	
	features or command	navigation difficulties			navigation	

2.	Using the system, user can effectivel y complete their work.	The system can generate report and informati on effectivel y	The system can generate report but somehow still need extra work to finalized properly	The system can help complete the work but still requires a lot of manual intervention	The system somehow can help a little bit to complete work	The system cannot help effectivel y to complete work
3.	Using the system, user is able to complete their work quickly.	The system can complete work quickly	The system can complete their work but somehow still need extra effort to finalized properly	The system can help complete the work but still requires a lot of manual intervention	The system somehow can help a little bit complete their work slowly	The system cannot complete their work
4.	It was easy to learn to use the system	Has bigger distinct clickable buttons/ areas. User can easily navigate/ use even without the help of an IT assistant	Has small distinct clickable buttons/ar eas that the user can easily to navigate/us e even without the help of an IT assistant	Has lots of small distinct clickable buttons/area s that the user can easily to navigate/use even without the help of an IT assistant	Has lots of small clickable buttons/ar eas but not that the user can easily to navigate/us e even without the help of an IT assistant	There are lots of complica ted clickable buttons/ areas. User has difficulty in navigatin g/using the system and needs help of an IT assistant
5.	The informat ion (such as online	Provides hints/inf ormation about the	Provides hints/infor mation about the	Provides hints/inform ation about the usage of	Cryptic and ambiguous error messages	No messages at all

help, on-	usage of	usage of	every fields.	and	
screen	every	every fields	Also, it has	information	
message	fields,	and forms,	help files that	are	
s, and	form and	and has	contain some	displayed	
other	clickable	help files	information	by the	
docume	area, and	that contain	and	system	
ntation)	has help	most of the	instruction	-	
provide	files that	information			
d with	contain	and			
this	general	instruction.			
system is	informati				
clear	on and				
	instructio				
	n.				

Based on: Ramezan, M. (2009) *Measuring the effectiveness of human resource information systems in national iraninan oil company and impirical assessment.* **Iranian Journal of Management Studies (IJMS)** 2:2, 129-145.

C. Information Quality

Informatio n Quality	5	4	3	2	1	Score
1. The	Generates	Generates	Generates	Generates	Cannot	
information	100% exact	80% exact	60% exact	50% exact	generate	
provided by	informatio	informatio	information/	information	accurate	
the system	n/report	n/report	report	/report	informatio	
is accurate.	according	according	according to	according to	n / report	
	to the	to the	the request.	the request.	according	
	request.	request.	-	-	to the	
	-	-			request.	
2.The	Generates	Generates	Generates	Generates	Cannot	
information	100%	80%	60%	50%	generate	
provided by	complete	complete	complete	complete	complete	
the system	informatio	informatio	information/	information	informatio	
is complete.	n/report	n/report	report	/report	n / report	
-	according	according	according to	according to	according	
	to the	to the	the request	the request	to the	
	request.	request	_	_	request	
3. The	Generates	Generates	Generates	Generates	Generates	
informat	informatio	informatio	information/	information	informatio	
ion	n/report	n/report	report	/report	n/report	
provide	according	according	according to	according to	according	

4.	d by the system is on time. The informat ion provide d by the system is understa ndable.	to the request with 30 secs interval Generates informatio n/report that is clearly relates according to the request. It includes several supporting details.	to the request with 1- minute interval A little bit of clarity on the reports and informatio n generated by the system	the request with 2 minutes interval Plain but understandab le reporting and system information generated by the system	the request with 2- minutes and 30 seconds interval With a little bit of obscurity in the report and information generated by the system	to the request with 3- minutes interval Obscured reporting and other informatio n generated by the system	
5.	The volume of informat ion provide d by the system is appropri ate.	Generates 100% appropriat e informatio n/report according to the request	Generates 80% appropria te informati on/report according to the request	Generates 60% appropriate information/ report according to the request	Generates 50% appropriate information /report according to the request	Cannot generate informatio n according to the request	

V. User Satisfaction of the System

Direction: Please indicate your response on the box provided using the following scale:

- 5 Extremely Satisfied
- 4 Highly Satisfied
- 3 Moderately Satisfied
- 2 Slightly Satisfied
- 1 Not Satisfied

A. System Quality	5	4	3	2	1	Score
1. I am satisfied with the functionality of the system.	Complete necessary functions and reporting	Minor missing functional ity and reporting	Some function ality and reports yield different from what is expected	Erroneous functional ity	Not functional at all	
2.I am satisfied with the reliability of the system.	Correct and reliable reports and information generated by the system	Correct and reliable reports and informatio n generated by the system but in a wrong format/ arrangem ent	Some reports display different informat ion	Lot of erroneous informatio n with wrong design and format	Not reliable at all	
3. I am satisfied with the efficiency of the system.	System is efficient and effective	System is efficient and effective with a little bit of manual interventi on	System is someho w efficient in the transacti on and reportin g	Lots of functions and reporting are not efficient	Not efficient at all	
B. System Usability	5	4	3	2	1	Score
1. I am satisfied with how the system is easy to use.	Simple to use, tools are well - organized, requires	Simple to use but needs a little time for	A lot of time is needed to familiari	Difficult and confusing to use due to not	Really very difficult to use	

	minimal explanation for how to use it and does not malfunction or crash	familiarity of the menus and functional ities	ze the system due to scattere d and not organize d menus and function s.	organized menus and functions and not informativ e screens and designs.		
2.I am satisfied with the interface of the system.	Plain, organized and self- explanatory design and interfaces	Plain design with minimal learning curve needed to familiariz e	Plain design but menus and function s are not well organize d	Simple designs but with little confusing interfaces	Interface are confusing and not well organized	
3. I am satisfied with the purpose of the system.	System meet all its purpose and intended results and information	System meets almost all purpose and intended results but still missing some minor informatio n	System meets minor purpose and its intended results bit a lot of missing features	A lot of features and function did not meet its purpose and intended results	System totally did not meet its intended purpose and results	
C. Information Quality	5	4	3	2	1	Score
1. The information on the system is always timely.	System can generate correct report and information in real-time	System needs a little time for batch data sync before it can	Occasio nally takes some time in generati ng	Reports and informatio n generated by the system	Reports and informatio n generated by the system is	

2.The information on the system is always accurate.	Generate accurate reports and information	generate report and informatio n Generate accurate reports but with some incorrect design format	reports and informat ion Most reports generate d are accurate but there are some which are lacking	takes a lot of time Some reports are not accurate	really not timely System generate not accurate informatio n and reports	
			content and info			
3.The information	Generates	Generates	Generat	Generates	Informati	
on the system is	relevant	relevant	es	lacking	on	
usually relevant.	information	informatio	lacking	informatio	generated	
	according	n but in	informat	n in	are not	
	to the	wrong	ion	wrong	relevant at	
	request	design		design	all	
		format		format		

Based on: Ajoye, M. B. (2014) *Information Systems User Satisfaction: A Survey of the Postgraduate School Portal, University of Ibadan, Nigeria.* Library and Practice (E-journal).

VI. Recommendations and Suggestions

Thank you for your cooperation and time in answering the evaluation form.

The Researcher

QUESTIONNAIRE FOR STUDENT

I. Personal Background

Direction: Kindly provide the necessary data asked by writing your answers on the space provided.

Department/Office: _____

II. Knowledge Learned about the SIAS Feature

Direction: Please indicate your response on the box by putting a check (/) on the space provided using the following scale:

- 5-Excellent (Able to teach someone else)
- 4 Good (Able to practice independently)
- 3 Average (Has some experience but still requires supervision)
- 2 Fair (Know something but no experience)
- 1 Poor (Know nothing)

	Smartcard	5	4	3	2	1
1.	Integrated information kiosk					
	system for viewing grades,					
	accounts & queue using					
	smartcards IDs					
2.	Integrated online real-time					
	cloud queuing system using					
	smartcards IDs					
3.	Smartcard or biometric touch					
	screen wall-mounted					
	information kiosk					
4.	Integrated teller/counter					
	module using smartcard IDs					
	for more efficient					
5.	Updates on queue status are					
	real-time in all information					
	kiosks					

6.	Can			
	add/delete/enable/disable			
	offices which is reflected in			
	kiosks in real-time.			
7.	Caters to all offices such			
	Registrar, Cashier,			
	Enrollment, Guidance,			
	Scholarship, Promissory,			
	Deans, etc.			

III. Attendance to Training

Direction: Kindly provide the necessary data asked by putting a check (/) on the space provided.

		Yes	No	Not Sure
1.	Did the administration conducted training			
	on how to manipulate/use the system?			
2.	Did you attend the training?			

IV. Effectiveness of the System

Direction: Please indicate your response on the box provided using the following scale:

- 5 Extremely Effective
- 4 Highly Effective
- 3 Moderately Effective
- 2 Slightly Effective
- 1 Not Effective

A. System Quality

		4	2	•	1	C
	5	4	3	2	1	Score
1. The system	Includes all	Includes	Includes	Includes	Cannot	
presents	the reports	all the	some of the	basic	integrate	
integrated	needed by	reports on	financial	financial	reports	
reports.	the	financial	reporting	reporting		
	university/	informatio	but cannot	only		
	students on	n but	be updated			
	financial	cannot be				
	reporting	updated				
	with future					
	additional					
	report					
	capability					
2. The system	With	With User	With user	With fixed	No User	
limits to	Secured	Security	security but	username	Security	
unauthorized	User	and Level	without user	and	at all	
access.	security and	Access	level access	password		
	User Level	Right	right	1		
	Access	0				
	Right					
All expected	Almost all	Half of the	The system	No result		
results are	expected	request	generate	at all		
generated	results are	generates	result which			
according to	generated	expected	are different			
requests	but some	results and	from the			
1	are missing	half are	request			
	0	missing or	1			
		with				
		something				
		wrong				
The results	A 11		Only half of	Most of the	NT.	
generated by	All	Almost all	the	generated	No	
the system is	generated	generated	generated	results are	results	
accurate.	results are	results are	results are	NOT	generate	
	accurate	accurate	accurate	accurate	d at all	
The system is	Compatible	Compatibl	Compatible	Not	Not	
capable to	and	e and	but not	compatible	compati	
interact with	upgradable	upgradabl	upgradable	but	ble and	
one or more	to online	e to online	to online	upgradable	not	
specified	version	version	version	to online	upgrada	
systems	anytime.	sometime.	anytime.	version	ble to	
	Future	Difficulties	Has fix	anytime	online	
	ruture	Difficulties	1 105 117	anytime	omme	

update can	in	functionaliti	version	
be	integrating	es and	anytime	
integrated	future	cannot be		
seamlessly	updates	updated		
-	-	with future		
		integration		

B. System Usability

	5	4	3	2	1	Score
1. The system is simple to use.	Interface is not complex providin g quick access to common features or comman d	Menu and functions are somehow group to functionalit y but still has some navigation difficulties	Plain and crude interface and menu navigation	Obscured menu navigation and interfaces	Very crude and obscured interface and system navigatio n	
2.Using the system, user can effectively complete their work.	The system can generate report and informati on effectivel y	The system can generate report but somehow still need extra work to finalized properly	The system can help complete the work but still requires a lot of manual intervention	The system somehow can help a little bit to complete work	The system cannot help effectivel y to complete work	
3. Using the system, user is able to complete their work quickly.	The system can complete work quickly	The system can complete their work but somehow still need extra effort to finalized properly	The system can help complete the work but still requires a lot of manual intervention	The system somehow can help a little bit complete their work slowly	The system cannot complete their work	

4.	It was easy to learn to use the system	Has bigger distinct clickable buttons/ areas. User can easily navigate/ use even without the help of an IT assistant	Has small distinct clickable buttons/ar eas that the user can easily to navigate/us e even without the help of an IT assistant	Has lots of small distinct clickable buttons/area s that the user can easily to navigate/use even without the help of an IT assistant	Has lots of small clickable buttons/ar eas but not that the user can easily to navigate/us e even without the help of an IT assistant	There are lots of complica ted clickable buttons/ areas. User has difficulty in navigatin g/using the system and needs help of an IT assistant
5.	The informat ion (such as online help, on- screen message s, and other docume ntation) provide d with this system is clear	Provides hints/inf ormation about the usage of every fields, form and clickable area, and has help files that contain general informati on and instructio n.	Provides hints/infor mation about the usage of every fields and forms, and has help files that contain most of the information and instruction.	Provides hints/inform ation about the usage of every fields. Also, it has help files that contain some information and instruction	Cryptic and ambiguous error messages and information are displayed by the system	No messages at all

Based on: Ramezan, M. (2009) *Measuring the effectiveness of human resource information systems in national iraninan oil company and impirical assessment*. **Iranian Journal of Management Studies (IJMS)** 2:2, 129-145.

C. Information Quality

Informatio n Quality	5	4	3	2	1	Score
1. The	Generates	Generates	Generates	Generates	Cannot	
information	100% exact	80% exact	60% exact	50% exact	generate	
provided by	informatio	informatio	information/	information	accurate	
the system	n/report	n/report	report	/report	informatio	
is accurate.	according	according	according to	according to	n / report	
	to the	to the	the request.	the request.	according	
	request.	request.			to the	
					request.	
2.The	Generates	Generates	Generates	Generates	Cannot	
information	100%	80%	60%	50%	generate	
provided by	complete	complete	complete	complete	complete	
the system	informatio	informatio	information/	information	informatio	
is complete.	n/report	n/report	report	/report	n / report	
-	according	according	according to	according to	according	
	to the	to the	the request	the request	to the	
	request.	request	_	_	request	
3.The	Generates	Generates	Generates	Generates	Generates	
information	informatio	informatio	information/	information	informatio	
provided by	n/report	n/report	report	/report	n/report	
the system	according	according	according to	according to	according	
is on time.	to the	to the	the request	the request	to the	
	request	request	with 2	with 2-	request	
	with 30	with 1-	minutes	minutes and	with 3-	
	secs	minute	interval	30 seconds	minutes	
	interval	interval		interval	interval	
4. The	Generates	A little bit	Plain but	With a little	Obscured	
informat	informatio	of clarity	understandab	bit of	reporting	
ion	n/report	on the	le reporting	obscurity in	and other	
provide	that is	reports	and system	the report	informatio	
d by the	clearly	and	information	and	n	
system	relates	informatio	generated by	information	generated	
is	according	n	the system	generated by	by the	
understa	to the	generated	-	the system	system	
ndable.	request. It	by the				
	includes	system				
	several					
	supporting					
	details.					
5. The	Generates	Generates	Generates	Generates	Cannot	

volume	100%	80%	60 %	50%	generate
of	appropriat	appropria	appropriate	appropriate	informatio
informat	е	te	information/	information	n
ion	informatio	informati	report	/report	according
provide	n /report	on /report	according to	according to	to the
d by the	according	according	the request	the request	request
system	to the	to the			-
is	request	request			
appropri					
ate.					

V. User Satisfaction of the System

Direction: Please indicate your response on the box provided using the following scale:

- 5 Extremely Satisfied
- 4 Highly Satisfied
- 3 Moderately Satisfied
- 2 Slightly Satisfied
- 1 Not Satisfied

A. System Quality	5	4	3	2	1	Score
1. I am satisfied	Complete	Minor	Some	Erroneous	Not	
with the	necessary	missing	functiona	functional	functiona	
functionality of	functions	functional	lity and	ity	l at all	
the system.	and	ity and	reports	-		
	reporting	reporting	yield			
			different			
			from			
			what is			
			expected			
2.I am satisfied	Correct and	Correct	Some	Lot of	Not	
with the	reliable	and	reports	erroneous	reliable	
reliability of the	reports and	reliable	display	informatio	at all	
system.	information	reports	different	n with		
	generated	and	informati	wrong		
	by the	informatio	on	design		
	system	n		and		
		generated		format		
		by the				
		system				

		but in a wrong format/ arrangem ent				
3.I am satisfied with the efficiency of the system.	System is efficient and effective	System is efficient and effective with a little bit of manual interventi on	System is somehow efficient in the transactio n and reporting	Lots of functions and reporting are not efficient	Not efficient at all	
B. System Usability	5	4	3	2	1	Score
1. I am satisfied with how the system is easy to use.	Simple to use, tools are well - organized, requires minimal explanation for how to use it and does not malfunction or crash	Simple to use but needs a little time for familiarity of the menus and functional ities	A lot of time is needed to familiariz e the system due to scattered and not organize d menus and functions	Difficult and confusing to use due to not organized menus and functions and not informativ e screens and designs.	Really very difficult to use	
2.I am satisfied with the interface of the system.	Plain, organized and self- explanatory design and interfaces	Plain design with minimal learning curve needed to familiarize	Plain design but menus and functions are not well organized	Simple designs but with little confusing interfaces	Interface are confusin g and not well organize d	
3.I am satisfied with the purpose of the system.	System meet all its purpose	System meets almost all	System meets minor	A lot of features and	System totally did not	

	and intended results and information	purpose and intended results but still missing some minor informatio n	purpose and its intended results bit a lot of missing features	function did not meet its purpose and intended results	meet its intended purpose and results	
C. Information Quality	5	4	3	2	1	Score
1. The information on the system is always timely.	System can generate correct report and information in real-time	System needs a little time for batch data sync before it can generate report and informatio n	Occasion ally takes some time in generatin g reports and informati on	Reports and informatio n generated by the system takes a lot of time	Reports and informati on generate d by the system is really not timely	
2.The information on the system is always accurate.	Generate accurate reports and information	Generate accurate reports but with some incorrect design format	Most reports generate d are accurate but there are some which are lacking content and info	Some reports are not accurate	System generate not accurate informati on and reports	
3.The information on the system is usually relevant.	Generates relevant information according to the request	Generates relevant informatio n but in wrong design format	Generate s lacking informati on	Generates lacking informatio n in wrong design format	Informati on generate d are not relevant at all	

Based on: Ajoye, M. B. (2014) Information Systems User Satisfaction: A Survey of the Postgraduate School Portal, University of Ibadan, Nigeria. Library and Practice (E-journal).

VI. Recommendations and Suggestions

Thank you for your cooperation and time in answering the evaluation form.

The Researcher

CURRICULUM VITAE

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