RSU Web-Based School Automation Management System: Results-Based Assessment

Emelyn R. Villanueva

College of Education, Romblon State University, Philippines & Office of the Vice President for Academic Affairs

Abstract

Advancements in ICT have caused transformation of educational organizations. They have made important impacts in the areas of leadership, decision-making, human resource management, responsibility, and planning. The aim of this research is to evaluate the effects of technology intervention to Romblon State University operations and how the university can further optimize the effectiveness and efficiency of the technology intervention to the delivery of academic services and to administration of the institution. Respondents of this study were the end-users from RSU main campus and the system provider personnel. Data were gathered using survey questionnaire, validated through Focus Group Discussion sessions and analyzed using weighted mean, percentage and frequency. Though the results indicated that the overall assessment rate of the technology intervention project was highly effective, opportunities for improvements were still numerous as several problems in the implementation were identified, which had direct significance to the utilization of the system and delivery of provider's services.

Keywords— WebSAMS, ICT, web-based application, results-based, data-driven, quality management

I. INTRODUCTION

Nowadays, in this technology-driven world, ICT devices are not only essential but are mainstays in the lives and works of human beings. Authors Haag & Cummings (2010), in their book, they said that technology is "invasive" and that its use and purpose are prevalent and pervasive across human activities and sectors of the modern society. They expressed further that in ICT, the information systems do not only support information processes but also innovations. Indeed, coupled with the innovations and advancements in software technologies, these devices and equipment - from small gadgets to big servers have increased its importance and intensified its utilization. The effective usage and harmonious combination of software, hardware and peopleware in a business operation can create mechanisms technological to attain effectiveness, efficiency and economy for any organization.

Romblon State University, having achieved its universityhood in 2009, has projected internationalization and globalization in several aspects of management specifically in instruction, research, extension and production. These State Universities and Colleges (SUC) mandates are well stipulated in RA 7722 and are strictly executed by SUCs and HEIs.

With the awareness of the significance of these technological mechanisms and the demands of innovations and interventions for the university in its operations and processes, RSU heeds these mandates and aligns its reforms to CHED Strategic Plan. As cited in the thrusts of the Philippine Development Plan 2011-2016 and as articulated in the CHED Strategic Plan, SUCs and HEIs have to utilize and integrate technologies in its operations and management in order to advance the country's national development and global competitiveness. These reforms are also packaged in the Philippine Higher Education Reform Agenda (PHERA) which seeks higher accountability of outcomes and impacts in the higher education system. In various studies conducted in government agencies and private organizations, technology integration to organizations' processes and operations has indeed created numerous impacts valuable to management. For RSU, it purveys and raises the quality of administration of the university that is consequential in the internationalization and globalization of its operations and processes. It also contributes to the development of its human resources in advancing the university's development and competitiveness. In summary and as a whole, it offers various benefits and positive results not only in management aspects but also in providing and expediting the services rendered to the organization's clienteles.

Faderon (2013), in his article about the slow process of enrolment system, described how tedious and strenuous ordeal the students had to undergo just to complete the manual enrollment process in Romblon State University main campus. To address the incessant demand of students for better services and changes in the enrollment process, the University President, Dr. Arnulfo F. De Luna, commissioned the board secretary, Mr. John F. Rufon, who was the BAC Chairperson then, to invite software companies to conduct pilot testing of their enrollment system to the university. With Mr. Rufon's decisiveness and diligence, he was able to identify several software companies. He sent invitation letters to them as the university president could no longer bear the agony of students queuing up for a long time in a long line every enrollment period. Abon and Seraspi (2014), in their article titled "Enrollment of Automation System Sa RSU, nagkaroon ng Pilot testing (Had their Pilot-Testing)", stated that there were eight companies invited to conduct pilot testing to the university and out of those invited companies, only Weresolve Technologies, Inc. replied positively to the challenge of going through the pilot testing.

Miguel (2016), in her article entitled "Webbased Application from Software as a Service Provider", stated that WebSAMS, including the one-semester pilot testing, is on its third year of implementation during SY 2016-2017. She added that it opened doorways to easy and comfortable access of data. With the successful implementation, it served as gauge for learning management system that supports RSU in its creed for excellence.

In view of these historical events, WebSAMS came into existence to shed light on the need of putting into reality these reforms and workable changes without putting the university into predicament financial and unnecessary exposure to financial risk. Schwalbe (2011), in her book, stated and quoted that way back in 1995, the consulting firm, Standish Group, published a study entitled "The CHAOS Report". The firm surveyed 365 information technology executive managers in the United States who managed more than 8,380 IT application projects. The study revealed that projects were in state of chaos. It further reported that the overall success rate of meeting the goals of the projects on time and on budget was only 16.2% and that 31 % of the projects were canceled before completion and it cost US companies and government agencies \$81 billion. She stated further that in a more recent study by PricewaterhouseCoopers, out from 200 surveyed companies from different countries, over half of IT projects failed and that only 2.5% of corporation consistently meet their targets in terms of scope, time, and cost goals for all types of projects.

RSU wishes to avoid such IT projects failures and nightmares. Furthermore, if RSU aspires to achieve and implement it successfully, it will do so through a software that provides the global standard and exposure with the consideration of rural requirement and the demand for local setting.

To make this happen, RSU prescribes the specifications for criteria and software technologies and project implementation methodologies. These criteria set the tone for the significant risk-avoidance and the eventual success of the implementation. These are done to eliminate possible losses, prevent waste of resources and avoid the unsuccessful experience of ICT project implementation of other SUCs and HEIs.

As Schwalbe (2011) stated, the future of many organizations depends on their ability to harness the power of information technology. Clearly, to stay insensitive to these developments and changes is to court organizational risk and danger. With this thought, it is important and necessary for any SUC to modernize its day-today business processes in order to be effective, efficient and economical in providing fast and satisfactory services. Aiming for fast and quality delivery of services is not only a monstrous undertaking but an equally frustrating task under a manual system.

It is through these premises why RSU engaged provider in with the deploying and implementing the Online Management System project commencing School Year 2014-2015. Considering its significance to all stakeholders and most importantly to report management system, this project eventually leads to paperless transaction and enhances the quality system of management the university. Moreover, it is formulated to study and identify the project's worth as one of the best practices in technology engagements and innovations and how it can be further enhanced and utilized.

Black (2009) cited, in his research titled "Defining Enrollment Management: The Structural Frame", that utilizing better enrollment planning models that would capture historical data and other related concerns was essential in academic institution's development and competitiveness. He added that impact assessment shall be one of the highlight activities to further evaluate its impacts, changes and the advantages offered to the academic institution. Vander Schee (2007) noted that strategic enrollment management is a comprehensive process which is designed to help an institution achieve and maintain the optimum recruitment, retention, and graduation rates of students, where 'optimum' is defined within the academic context of the institution. Also, along with the need of developing students who are critical thinkers (Blancia &

Fetalvero, 2016), are the services of the university which were of optimum quality.

Thus, this paper is then conceived to assess the Online School Automation and Management System based on its actual results and effects to end-users as compared to its desired objectives. Speaking of which, it is the only and premier project intervention of its kind in MIMAROPA region.

II. RATIONALE

Researchers, Kalsbeek & Hossler (2009), emphasized on the premise that enrollment management processes must consider research that measures an institution's competitive market position relative to other institutions. of The role and perception external stakeholders, marketing, and brand of the institution are important strategies to consider within the context of market position. This market research allows the opportunity to identify ways to expand extension projects and assesses an institution's brand image. Both authors indicated that there is no one right structure and that enrollment management must be adapted to the needs, organizational climate, and administrative skills of the institution.

Truly, managing the enrollment has been an issue for educators since the establishment of post-secondary institutions. Admission standards and academic programs have been evaluated for decades by institutions in the quest to achieve a desired student population. Along with this quest of attaining high number of enrollees, the environment of higher education continuously changes and simultaneously the demands of educational system for reports get numerous and Efficiently complicated. streamlining the enrollment process while attaining the desired number of students are two daunting tasks that post a big challenge for the SUCs & HEIs. Apart from this, educational managers have to make more decisions in short times as CHED requires from academic institutions or as their work demands them. For these reasons and as problem-solvers and decision-makers, the demand for instant access and availability of data is urgent and important.

With the Memorandum of Agreement signed between Romblon State University and Weresolve Technologies, Inc., innovative interventions were made and experienced in data management system. It highlighted enrollment processes that covered registration of students, reservation of subjects to be enrolled, approval of subjects, assessment of fees, granting of scholarships and acceptance of payments. On the university's journey to technology engagement, the innovative interventions also paved its way to the improvement of the storage, retrieval and distribution of data to support the organizational learning and decision-making. Accordingly, the idea of systematizing and categorizing the variety of data and providing meaningful information through the use of information technology is the heart of the knowledge management (Breiter, A., & Light, D., 2006).

Another major component of the Automated System is the online uploading of grades and the generation of grading sheets that can be done anywhere and anytime by the teachers. The system in one way or another serves as a tool and the partner of RSU in its quest for faster delivery of academic services and for a premier institution of higher education in the MIMAROPA region for a globally competitive province of Romblon.

Realizing the need to further grow in its global dimensions, this research undertaking served as another milestone to further enhance and improve data management system of the university. Likewise, it evaluated the strengths and weaknesses of the presently implemented web-based automated system.

The Model of Evaluation which was applied in this study was objectives-oriented. This was adopted from the Tylerian Evaluation Approach which determined the extent to which the goals or objectives of the project were met and how well they were achieved.

Specifically, these goals or objectives were established in order to know what were to be measured relative to the results of the integration of technology to RSU operations and processes. Furthermore, these objectives also provided the general intention of the study, the direction in the creation of the instruments and the inclusion of related factors valuable and relevant in the assessment of the software implementation – the hardware and peopleware aspects. Thus, the creation of instruments in relation to the established objectives, a threepronged approach was applied in order to cover the three aspects. The Tylerian model served as the guiding post of the research track that assessed some measures to identify the impact of the project as to data management that the WebSAMS covered in its program, its benefits in rendering services to students and its direct effects to employers' work and productivity.

It captured the aftereffects of the project among the end-users. The results-based assessment was limited only to enrollment procedures; design and functionality; data storage, retrieval and distribution; and the problem encountered by the students in using the WebSAMS. On the employees' side, aside from the same indicators assessed by the students, it also covered evaluation of the support and maintenance services of the system provider in terms of efficacy and efficiency; on-site and off-site support, service provider's execution of scope of work as stipulated in the MOA; and problems encountered by employees in the use of the system. It also determined the predicaments experienced by the provider that hindered the better delivery of their service and support to the users. Additionally, it addressed further the important concerns that would lead more enhancement, modification to and customization of the system. And as a possible outcome, it served as an avenue to more and better partnership with Weresolve Technologies, Inc. through the provision of more functionalities or add-on programs that will give more improvement to RSU academic administration.

III.GENERAL OBJECTIVE OF THE STUDY

This investigation evaluated the aftereffects of the implementation of Web-Based School Automated System in Romblon State University main campus in order to improve its effectiveness based on the needs of the endusers and to enhance its efficiency in accordance to the demands of better academic service delivery.

Specific Objectives

- To determine the students' evaluation of WebSAMS in terms of:
 - a) Enrollment procedures and processes
 - b) Design and functionality
 - c) Data storage, retrieval and distribution
- 2. To determine the problems encountered by the students in the use of WebSAMS.
- **3**. To determine the employees' evaluation of WebSAMS in terms of:
 - a) Enrollment procedures and processes
 - b) Design and functionality
 - c) Data storage, retrieval and distribution
- 4. To determine the employees' evaluation of the support and maintenance services of the WebSAMS provider in terms of:
 - a) Efficacy and Efficiency
 - b) On-Site and Off-Site Support
 - c) Provider's Execution of Scope of Work as stipulated in the MOA
- 5. To determine the problems encountered by employees in the use of WebSAMS.
- 6. To determine the problems encountered by the system providers in implementing the WebSAMS.

IV. RESEARCH METHODOLOGY

Instruments and Procedures

The two types of respondents were administered with customized survey questionnaires. Generally, the categories in the survey were tailored fit based on the respondent's permission or access level and role on the system. These categories were further defined, specified, and subdivided by questions or survey indicators. Hereunder were the following categories:

- Their evaluations to the level of effectiveness of web-based School Automation Management System (WebSAMS) in terms of:
 - a) Enrollment procedures and processes,
 - b) Design and functionality, and

- c) Data storage, retrieval, and distribution.
- 2. Their evaluations to the support and maintenance services rendered by the system provider personnel in terms of:
 - a) Efficiency and efficacy and
 - b) on-site and off-site support.
- **3.** Their evaluations on the system provider's execution of scope of work as stipulated in the agreement.
- 4. Problems encountered by the end-users of the system.
- 5. Problems encountered by the service provider personnel in the implementation and deployment of the system.

The survey indicators were results-based parameters of evaluating the outcome of the implementation, the used of WebSAMS and its accompanying services. These indicators were assessed using five-point rating scale with corresponding descriptive equivalence:

Table 1. Five-point Rating Scale withDescriptive Equivalent

Scale	Descriptive Equivalence
5	Excellent
4	Very Good
3	Good
2	Fair
1	Poor

Descriptive statistics was utilized to interpret the evaluation of the respondents. The numerical rates of the respondents' evaluation per indicator were aggregated to calculate their weighted mean. Each weighted mean was then used to get the respondents' general rating of the indicators. To capture the evaluations of the respondents and to guide in the interpretation of the results, the indicators with highest and the lowest weighted means were then treated by classifying them using the point ranges. The point ranges were arbitrary intervals used to demarcate different descriptive interpretations. Each descriptive interpretation represented graduated weightings or varying degrees of scale to which inferences could be legitimately made. Thus, to measure and interpret the weighted mean of an indicator, it had to be classified as to where it fell among the point ranges. Lastly, the grand weighted mean per category was also classified using the same point ranges to get an overall evaluation and interpretation of the category where the indicators belong. For the category in the survey questionnaire where respondents were asked to identify problems, they had encountered in using the system, percentage and frequency were used to rate and sort these problems from highest to lowest. Problems that garnered 50% and above rates were the only problems discussed and given priority in the recommendations.

The table below with the following arbitrary intervals and descriptive interpretations was used to classify the weighted mean and the grand weighted mean:

Point Range	t Range Descriptive Interpretation	
4.21 - 5.00Indicator is highly effective or highly efficient and depicts best practic that provides a model for others. (75% greater than the standards)		
3.41 - 4.20	Indicator is very effective or very efficient at a level that demonstrates good practice. (50% greater than the standards)	
2.61 - 3.40	Indicator is effective or efficient. (100% compliance with the standards)	
1.81 - 2.60	Indicator is fairly effective or fairly efficient, but some improvement is needed to overcome weaknesses. (50% less than the standards)	
1.00 - 1.80	Indicator is not effective or not efficient, much improvement is needed to overcome weaknesses. (75% less than the standards)	

Table 2. Scaling Strategy with Descriptive Interpretation

The scaling strategy used in the point ranges of the study was adopted from the book of the researcher entitled "Organization & Teaching Performance: Basis for Monitoring Framework" (2016). In her book, she applied the Ritz Carlton Customer Satisfaction Scaling. However, in this research undertaking, it was modified. This modification was patterned after the research output of Llanda and Trinidad (2015).

On the other hand, the descriptive interpretations were adopted from the article written by Dr. Manuel T. Corpus entitled "The Outcomes-based Quality Assurance". These descriptive interpretations were used by Accrediting Agency of Chartered Colleges and Universities in the Philippines (AACCUP), Inc. in their accreditation to SUCs. To suit these descriptive interpretations for the use of this research, they were slightly modified without altering its essence.

Research Design

The investigation used both descriptive-survey and qualitative research. It described the outcome of the project on the end-users using survey questionnaire. Focus Group Discussion (FGD) sessions were also conducted to capture answers for some open-ended questions and to corroborate the data gathered from the survey. There were two FGD sessions to be done for the respondents – one for students-respondents and one for employees-respondents. Responses of the respondents were collected and tabulated for analysis and interpretation. Results of FGD served as reinforcement for the analysis of the results of the survey questionnaire.

Population Sample

There were two types of respondents, the main respondents, and the guests-respondents.

The main respondents of the survey were the end-users of WebSAMS at the main campus of Romblon State University located in Liwanag, Odiongan, Romblon. The two main respondents were from the following groups: students and employees. The employees-respondents were partitively categorized from staffs and clerks, teachers, and the senior and middle managers. The sampling for students-respondents was ten percent (10%) of all students enrolled for School Year 2017-2018 from different year levels and different colleges adopting the purposive stratified random sampling procedure using the Slovin's formula with 0.05 margin of error as discussed in the work of Tejada & Punzalan (2012). While the rest of the main respondents were the employees who were employed and assigned at the main campus for the same school year, and they were completely enumerated.

Tables 3 to 5 show the distribution of student sample population by college, course and by year level with all tables bearing a total of 408 students. Table 6 shows the distribution of employee sample by unit with a total of 89 employees. It is worth noting that retrieval of survey response is 100%.

The guests-respondents' role in the survey was limited only to survey questions or indicators that pertained to the problems encountered by the service provider in the implementation of the system and delivery of their service to the university.

As for the FGD, two personnel from the service provider were invited to participate in the two sessions.

Table 3. Distribution of Samples by College

College	Frequency	Percent
CED	128	31.4
CET	61	15.0
CAS	59	14.5
IIT	58	14.2
CBA	49	12.0
CAFF	31	7.6
ICJE	22	5.4
Total	408	100.0

Course	Frequency	Percent
BSED/BEED	128	31.4
BSIT	58	14.2
BSCE	40	9.8
BSBA	38	9.3
AB PolSci	31	7.6
AB English	28	6.9
BS Criminology	22	5.4
BAT	17	4.2
BSAgri	14	3.4
BSME	13	3.2
BSEE	7	1.7
BSHRM	6	1.5
BSAc	5	1.2
BSAE	1	.2
Total	408	100.0

Table 5. Distribution of Samples I	by
Curriculum Year Level	

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Year Level	Frequency	Percent
No Response	6	1.5
1st	48	11.8
2nd	36	8.8
3rd	164	40.2
4th	143	35.0
5th	11	2.7
Total	408	100.0

 Table 6. Distribution of Employee Samples

by Units		
College	Frequency	Percent
CED	24	27.0
CAFF	14	15.7
CAS	13	14.6
CET	12	13.5
IIT	9	10.1

Total	89	100.0
ADMIN	2	2.2
ICJE	7	7.9
CBA	8	9.0

V. GENERAL FINDINGS

The essential part of reaching quality service is transitioning into quality management system that would ease organizational transactions. This would save time, energy, and resources. The introduction of WebSAMS to Romblon State University may have been an innovative way for many in several aspects, but some also find the negative side of using such technology. In terms of students' evaluation of WebSAMS as to enrollment procedures and processes, design and functionality and data storage, retrieval and distribution; the three (3) indicators which exceeds 50% to the prescribed standard. The overall evaluation of WebSAMS as to the indicators mentioned is VERY EFFECTIVE. These results were validated by the students in the FGD and accordingly, on their own, they were able to view and print their grades and payment records by viewing or downloading relevant information online through their respective login accounts. The same results can be gleaned from the study of Alshorman & Bawaneh (2018)where management systems are deemed very effective in carrying out important aspects of the learning process.

On the other hand, in terms of problems encountered by students in using WebSAMS, only the problems garnering 50% and above frequency were chosen, and they were the following: Respondent experiences internet connection problems; Grades are not uploaded on time; Respondent is still experiencing long time queuing up in a long line when making payments at the cashier office. Students' late payment is causing confusion for teachers as to the officially enrolled students in the class; Enrollment transactions are not entertained during noon break; Student-respondent has incomplete grades of subjects in his/her online Unpaid records; student's financial accountabilities are causing problems in the report submission; There is no forum or venue for students' voice to be heard; Schedule of grade posting is limited only to Project Administrator; and Respondent has difficulty accessing the website of the system. Karpova et al (2009) corroborates the same results as to the problems encountered. Students really had a hard time in using the system due to poor internet connectivity. Poor internet connection may result to several inconvenience among users, and that is the major issue among countries with low internet connectivity.

Though the current automated enrollment system had eased their problem, the students still collegially confirmed their predicament falling in line at the cashier office. The same problem was cited by Scheetz (2019) and was discussed that the given instance was a product of the transition of online management system from traditional service transactions. To clients, the administration has to give primacy to this concern. Apart from the poor customer service rendered by the registrar personnel, they expressed their dislike to the uncaring and unsympathetic treatment from the cashier office and that 'NO NOON BREAK' policy had to be strictly observed or followed as mandated by the Civil Service Law. Moreover, students voiced out unitedly their concerns of teachers' failure to submit grades online. Lastly, they had also suggested that better domain name be used instead for them to easily remember the website.

As to employees' evaluation of WebSAMS in terms enrollment procedures and processes, design and functionality, and data storage, retrieval and distribution; the respective means gave an implication that it exceeded 50% to the prescribed standard and fell to the VERY EFFECTIVE category. This evaluation was also shared by the majority of the employeesrespondents in the FGD session. Accordingly, the university had saved financial resources in the paperless process and the automatic storage of data that can be easily retrieved. For most of them, the design and functionality were selfexplanatory as it was easy to navigate. Voronkova et al (2017) also reiterated on their study the advantage of using a management

system in terms of saving the organization's resources, most especially with regards to financial aspect.

As to the employees' evaluation of the support and maintenance services of the WebSAMS provider in terms of efficacy and efficiency, onsite and off-site support, and provider's execution of scope of work as stipulated in the MOA, the indicators exceeded 50% of the complied standard. The overall evaluation of WebSAMS as to the indicators portrayed was VERY EFFECTIVE AND VERY EFFICIENT. Most of the employees had agreed with these results however, there were some, who were newly hired by the university, that they experienced real problems with the support and were requesting the presence of system provider personnel during enrollment. They even raised and questioned the absence of user training for the system and that user manual must be available in the system. On the other hand, Bhalaluses et al (2013) discussed in their study that most management systems need time to maintain to prevent inefficiencies and system traffic.

Meanwhile, when it comes to problems encountered by the employees in using the WebSAMS the following indicators that received 50% frequency and above were only chosen. The following were sorted indicators from highest to lowest: Respondent experiences internet connection problems; Student late payment is causing confusion for teachers as to the officially enrolled students in the class; and Unpaid student's financial accountabilities are causing problems in the report submission; Scheduling for adding, changing and dropping is limited only to Project Administrator; There is no forum or venue for students' voice to air out their concerns about the system and for it to be addressed; and Scheduling for grade posting is limited only to Project Administrator. Aside from the claims of Bhalaluses et al (2013), Al-Hunaiyyan et al (2020) also corroborated that internet connectivity was seen as the hindrance for most employees since that the demand for stable internet connection is high. Further, they claimed to had trouble in accessing the system

especially during toxic hours. Internet connection had been a real problem to them, and they suggested of combating the problem by posting their grades online during the wee hours of the morning or late in the evening. Some deans and their representatives also expressed their desire to set the schedule of grade posting for their respective college on their own as the person setting the schedule online could not be reached in several instances. The several advantages, issues, and concerns presented in this study are of utmost importance especially that the Romblon State University is eyeing to become a SMART research-based university. The results of the focused-group discussion enlightened the actual scenario where various recommendations are advanced to fill out the gaps and provide necessary actions.

VI. CONCLUSION

As part of improving the quality of educational services among the clienteles of Romblon State University, the Web-based School Automation Management System (WebSAMS) served as a great avenue towards easing and facilitating major processes and procedures of the university such as the design and functionality and data storage, retrieval and distribution were perceived to be very effective by the students. On the other hand, most respondents encountered internet connection problems resulting to untimely posting of grades and difficulty accessing the website system.

On the other hand, as to the use of WebSAMS, most of the employees encountered difficulty in internet connectivity, confusion on the list of enrolled students, class scheduling, grade posting etc. Likewise, the findings of the survey questionnaire with regards to the implementation of WebSAMS were highly effective as confirmed by the students in the FGD. That WebSAMS, as venue where academic services can be accessed, was highly effective and beneficial for them. They further highlighted how they were able to access pertinent data from their personal account in the system even at the comfort of their homes.

The employees corroborated the findings in the survey questionnaire that the implementation of the WebSAMS had been beneficial tool for the employees for them to become productive, effective, and efficient in their work. As for them, for the RSU to become competitive globally, it must infuse technology into its operations and processes.

VII. RECOMMENDATIONS

Different stakeholders have different roles and access levels in the system (WebSAMS). The functionalities and features available to the endusers are dependent upon the access levels which are automatically and invariably assigned per user-role. Similarly, as the system serves as a platform for collaboration among all endusers with different roles to the system and with different works or functions in the university processes, different recommendations are made for specific group of stakeholders. These are done to align and specify such recommendations to where they are rightfully and intended. However, all these due recommendations are part and parcel of the general objectives of the research study. It is very important for any management system to have an orientation first before the actual using. Training on the use of the system is also very necessary among faculty and employees to connect to the gaps that may rise during the use of the platform. It is very essential for any institution to regularly assess and evaluate their management system to ensure that all services are in accordance with regulatory demands and standards. Lastly, formulation of applicable policy based on the results of the study could be further advanced.

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