

University Electronic Records Management System for Northwest Samar State University, Calbayog City

- 1) Northwest Samar State
University NwSSU, Main
Campus Calbayog City,
Philippines
- 2) Northwest Samar State
University NwSSU, Main
Campus Calbayog City,
Philippines

Corresponding email :

- 1) dad_ritchie@yahoo.com
- 2) donald.patimo@nwssu.edu.ph

Engr. Ritchie P. Maribojoc¹, Donald Patimo²

Abstract. Effective records management program is a major element of the governance of any organization. Based from the surveys, the Northwest Samar State University was not fully aware on how to do about the implementation of this act, National Archives of the Philippines Act of 2007 (R.A 9470). The university was still relying from the university code for the records management provisions. This study was undertaken to develop and validate the acceptability of the developed University Electronic Records Management System (UeRMS) for Northwest Samar State University as perceived by the computer experts, school officials, teaching personnel and non- teaching personnel. Thus, the idea and assessment of the respondents towards the design of the system is very critical. Upon validating the developed system, they observed that it was much faster to search records compared to manual process.

Keywords : electronic records, management system, records management, database

1. INTRODUCTION

All University Electronic Management System refers to the practice of maintaining the records of the university from the time they were created up to their eventual disposal. This system is deemed necessary to facilitate easy and fast transaction of documents of the university. Organizing large volumes of physical records are difficult. Without the use of an efficient, effective, and productive document management system, it is almost certain that management of documents will be prone to human error.

Good quality management of records and information is fundamental to a well-functioning organization since it supports business activity and provides a basis for efficient and effective service delivery. It also provides the mechanism whereby both the private and public sectors can account for their decisions and actions. Records provide evidence for the public to confirm or claim their public rights and entitlements, as well as providing individuals with evidence to justify government decisions and a mechanism whereby they can have trust in private enterprise. The good records management is simply good business practice.

Furthermore, the information contained in university records needs to be managed according to a methodical approach in order to enhance the effectiveness and efficiency of the universities in carrying out their mission. Public records and archives contribute to the country's national identity by documenting the interactions of people and organizations with the government over time [1]-[3].

This study aimed to develop and validate a University Electronic Records Management System for Northwest Samar State University in Calbayog City. The researcher conducted a survey to determine the level of compliance of the university to the National Archives Act of 2007 (R.A 9470) as perceived by the officials, teaching and non-teaching personnel in terms of management of public records and administration of public archives, as well as the acceptability of the system. The researcher used appropriate statistical tools to determine the significant difference on the perception of the respondents on the level of compliance of the university to RA 9470. Thus, the researcher identified and collected the benchmark information from the respondents needed to specifically improve the design and development of the University Electronic Records Management System (UeRMS) for Northwest Samar State University, Calbayog City.

2. METHODS

This study uses the developmental method of research and the Structured Systems Analysis and Design (SSADM) in order to elicit data from the respondents. The developmental research is particularly important in the field of information technology. The most common type of developmental researches involves situations in which the product- developmental process is analyzed and described, and the final product is evaluated (Richey, 2004).

This study used random sampling to determine the size of the teaching and non-teaching personnel of the University. There were fifty percent (50%) of the teaching and non-teaching personnel and ninety percent (90%) of the school officials were tallied and tabulated as respondents.

On the other hand, purposive sampling method is considered in determining the size of the computer experts and University officials. In purposive sampling the investigator used his prudent judgment about which respondents to choose, and picks only those who best meet the purpose of the study. Purposive sampling was also used in identifying officials who deal directly with records management of the university, as well as senior officials who can assist in making records management one of the strategic priorities.

The first set of questionnaire was designed according to R.A 9470. The questionnaire asked the respondents the level of compliance of the University in relation to R.A 9470. The panel agreed that the questionnaire presented by the researcher was valid and accepted as a research instrument.

The researcher also made use of the validated research questionnaire of Ortiz [4]-[6] in his theses entitled "Research Database Management System for NwSSU". The said questionnaire was designed to validate the Assessment of the computer experts. Another set of questionnaire was also used to determine the acceptability of the developed University Electronic Records Management System as assessed by the respondents.

The data gathered through the research instruments were statistically treated and interpreted to answer problems postulated in the study. The statistical treatments used to analyze the gathered data are the following: The average weighted mean and standard deviation were used in determining the level of compliance of the University to the National Archives Act of 2007 (RA 9470) as perceived by the school officials, teaching, and non-teaching. Mean and standard deviation were also used on the evaluation of the computer experts and the school officials on the workability of the proposed University Electronic Records Management System for NwSSU. The ANOVA Single factor was used to determine the perception of the respondents on the workability and acceptability of the University Electronic Records Management System.

3. RESULTS AND DISCUSSION

As shown in Figure 1, the NwSSU was unaware of the guidelines under the National Archives Act 9470. These results could mean prioritization of the creation of a university records office. The overall rated mean result of 2.31 is clear evidence that the university needs a record management system that will cater needs concerning on the university records handling.

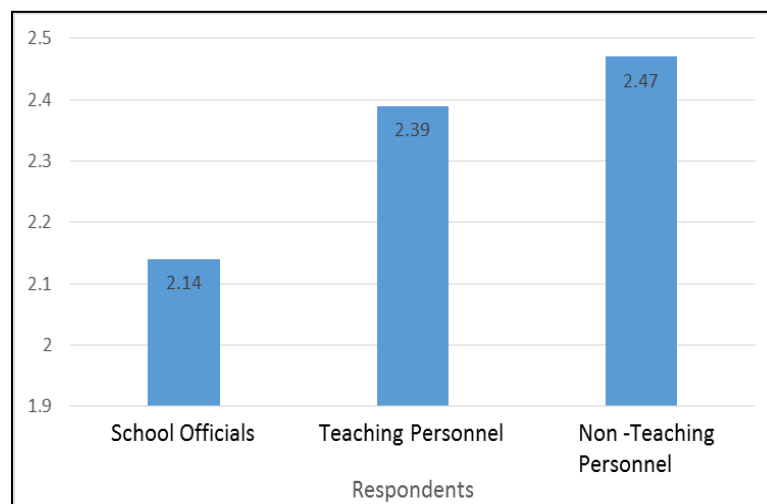


Figure 1. NwSSU Level of Compliance to R. A 9470

Most of the computer experts agree that the input design of the proposed system had been designed for user convenience and there is an efficient input and data entry as shown in the table below. The processing performance, database design and output design were also accepted and validated by the computer experts. With the recommendations coming from them that the server requirements must be followed and ensure that the software used meets the minimum requirements.

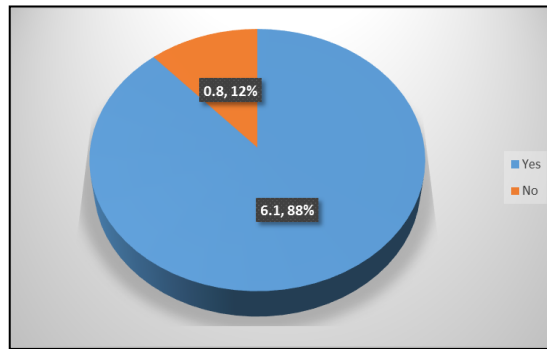


Figure 2. Validity Assessment of Computer Experts on User- Interface

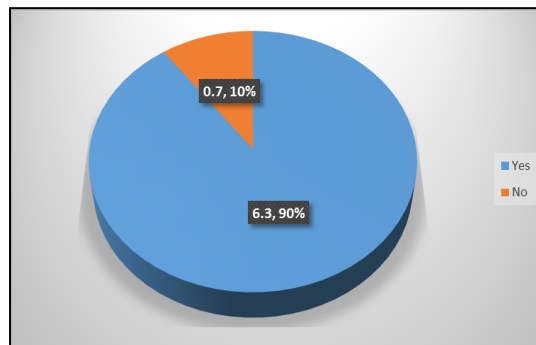


Figure 3. Validity Assessment of Computer Experts on Input Design

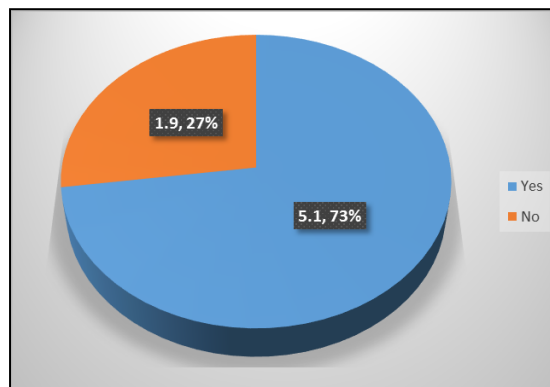


Figure 4. Validity Assessment of Computer Experts on Processing Performance

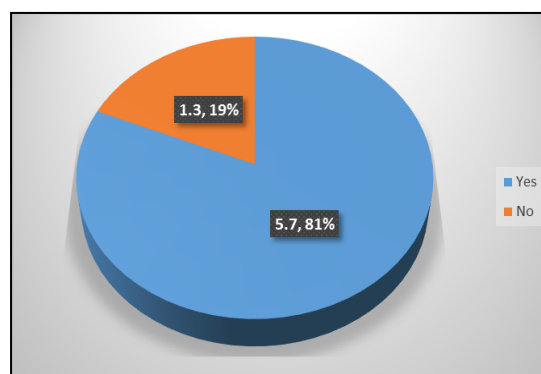


Figure 5. Validity Assessment of Computer Experts on Database Design

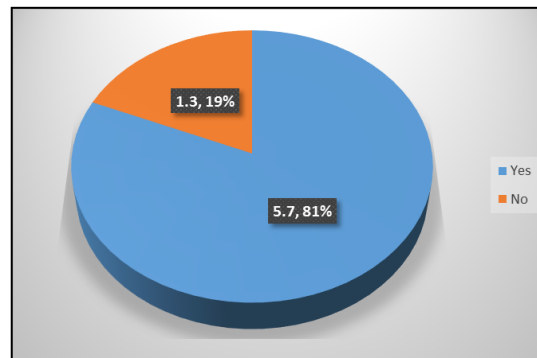


Figure 6. Validity Assessment of Computer Experts on Output Design

The researcher made use of Free Open Source Software (FOSS) for its database design as back end and development. It uses Visual Studio 2008 as the front end software. It was designed to address the need for record keeping and monitoring of a Records office in a university. It facilitates a more efficient means of creating, maintaining, and querying the databank of all the records of the university [7-10].

The design of the proposed University Electronic Records Management System for Northwest Samar State University is presented below using a functional decomposition diagram shown on figure 7. It is a fundamental analysis technique that breaks a complex problem into successive layers of more manageable and comprehensive pieces, resulting in a hierarchically structured function chart [11]-[14]. There are 6 main menus and 16 submenus that the system caters.

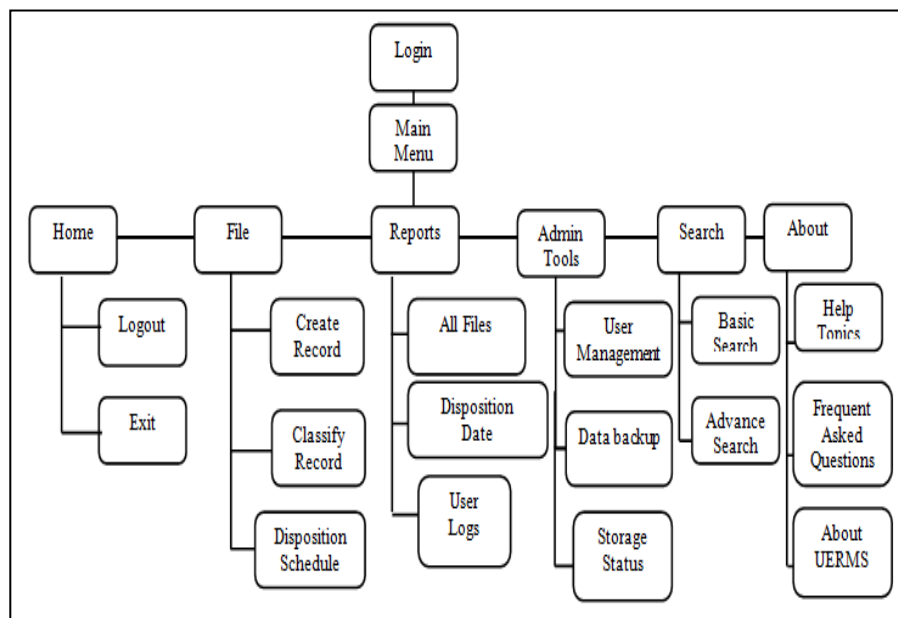


Figure 7. Design of the Proposed University Electronic Records Management System for the Northwest Samar State University

The Entity Level ERD of the proposed University Electronic Records Management System is shown below in figure 8. Thus, the proposed system contains 10 tables as presented on the figure. Five of those tables were the kinds of records that the system process. A record of each entity allows the key attribute to establish relationship. The entity identified by the key attribute assigned for the purpose identification of every record for fast search and to make easy organization of relationships for the proposed system. The figure below is an abstract way to describe the database of the proposed system.

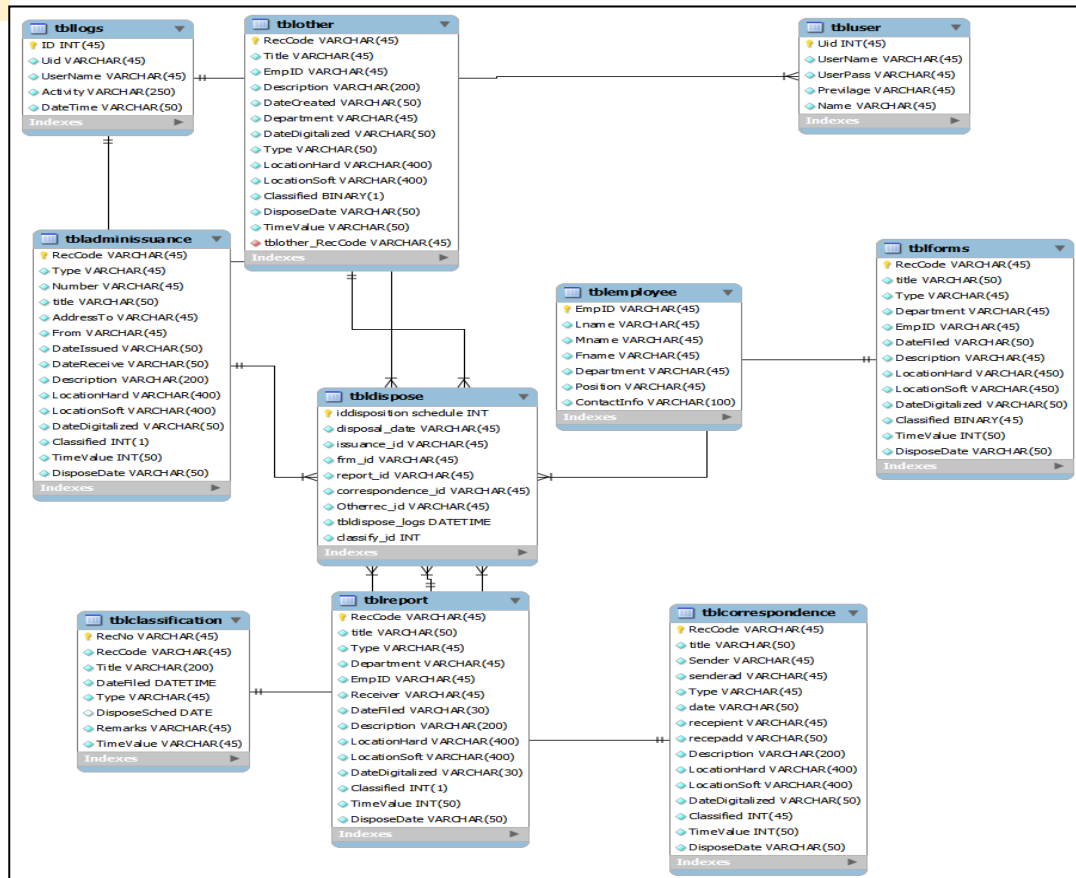


Figure 8. UERMS Entity Relationship Diagram

The succeeding figures show the user interface designs of the proposed University Electronic Records Management System for Northwest Samar State University.

The log-in screen for UeRMS includes a green-themed background with a globe and circuit patterns. It features a "Welcome Northwest Samar State University" message, the "UeRMS" logo, and a login form with fields for "User name" and "Password", along with "OK" and "Exit" buttons. A mission statement is also displayed:

Its Mission...

- To implement tools and processes
- to support paperless environment
- And aid in the capture, classification, and ongoing management of records throughout their lifecycle.
- To access information easily and direct

Figure 9. Log-in Screen Form

The "Records Information" form for creating a new record includes the following fields and options:

- Record Code: 000000000
- Title: [Text Field]
- Description: [Text Area]
- Issuance Type: [Dropdown Menu]
- Issuance Number: [Text Field]
- Address to: [Text Field]
- From: [Text Field]
- Date Issued: 3/1/2013
- Date Received: 3/7/2013
- Hard Copy Location: [Text Field]
- eCopy Location: [Text Field]
- Date Digitalized: 3/12/2013 11:55:15 PM

Buttons for "Save" and "Clear" are located at the bottom right of the form.

Figure 10. Record's Creation Form

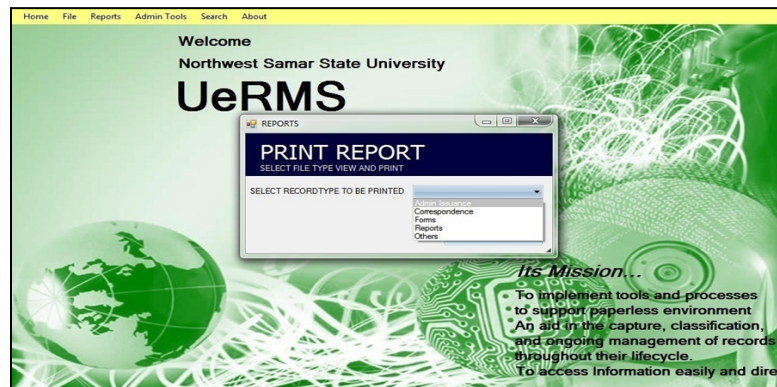


Figure 11. Print Report Form

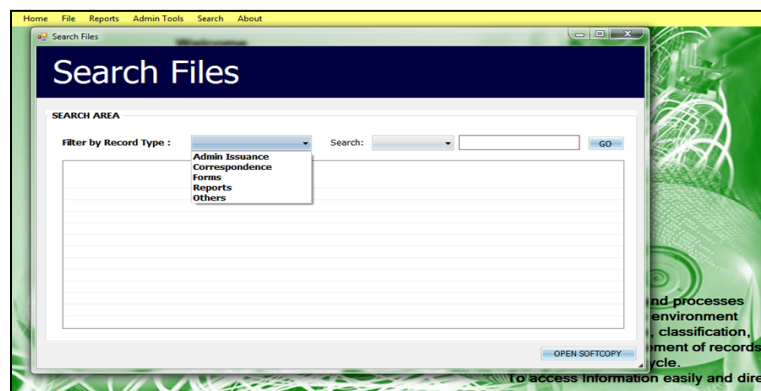


Figure 12. Search Module Form

4. CONCLUSION

Based on the findings of the study, the researchers concluded that there is a need for the whole community of the Northwest Samar State University to be acquainted with the provisions of the law on “National Archives of the Philippines Act of 2007”. Furthermore, the assessment of the computer experts on the validity of the proposed system reveals that the proposed system was valid and acceptable in terms of user interface, input design, processing performance, database design, and output design. With these, improvements on the design and development of the University Electronic Records Management System were made and finalized for the effective system implementation.

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