RESEARCH AND PUBLICATIONS OFFICE DATA MANAGEMENT SYSTEM

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ABSTRACT

The study aimed to develop a system for the Research and Publications Office in the archiving of documents. The study is an applied research as it focused on Systems Development. Survey questionnaires, Interviews, observations and internet surfing were employed as data gathering tools to obtain relevant information that are instrumental to the development of the system. There were 255 research participants which included five (5) groups of users: the administrator, employees of the University, the secretary and the dean of each department, and randomly selected guests from the different departments. Frequency and Percentage Count, Mean, Weighted Mean and Simple Random Sampling, and Slovin's Formula were employed for data analysis. The findings revealed that the current system on research output management "needs improvement." This implies that the participants encountered difficulties in the submission of research outputs in soft copies, sorting and monitoring of research outputs, and feedbacking of results using the current system. Moreover, the publication output management of the current system is "poor." This implies that the participants encountered difficulties in collecting, editing, printing and sorting of publication outputs, and feedbacking of results. Conversely, on research output management and publication output management of the proposed system is "very satisfactory." The proposed research and publication data management system was assessed in terms of its functionality, reliability, usability, maintainability and portability to be "very highly efficient." The result implies that the proposed system is more efficient compared to the current system because it is automated and it contains the desired features/capabilities to facilitate transactions, processes and to keep track of research and publication outputs.

INTRODUCTION

Things are changing rapidly as the world is progressing. Technology continues to evolve dramatically. Because of the advancements of technology, people specifically programmers are now faced to embrace the challenge of changing manual systems to computerized systems to make the work of people easier.

Computers make our lives completely different and are of great help to sectors that have been applied with such. It is the main weapon for programmers to create incentive systems. Until now computer continues to reign & evolve into the world of programmers and to common individuals because it creates connections, attachments and relations from man. It offers comfort in terms of compiling and accessing files.

Documents such as newsletters, journals and researches are very essential, particularly to institutions. It is for this reason that digitization of documents will take place to preserve the document and to make the documents more accessible.

In this case, the Research and Publications Office of St. Paul University Philippines needs to upgrade its manual system leading to automation. Currently, the office is using manual procedure in storing researches submitted by undergraduate and graduate students as well as the employees of the University.

Therefore, through the automation of the manual process, the tasks in the Research and Publications Office will become easier and lighter. The records will be more reliable and generation of reports will be made faster.

Conceptual Framework

This study used the SCRUM Agile Development Methodology Diagram (Helios Financial Corporation, 2011) as a process model of the system development.

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Quality Assurance

In this phase, the researcher used the feedbacks and suggestions for the improvement of the system. System flaws or bugs were detected and were fixed in this phase.

Deployment

It is where the proposed system was deployed to the organization that highly needs the system.

Statement of the Problem

The study aimed to develop a system for the Research and Publications Office for the purpose of archiving the office documents.

Specifically, this study sought to answer the following:

1. What is the assessment of the participants on the current system regarding the following transactions and processes:
    1.1 Submission of Research Outputs (Soft Copy):
        1.1.1 Collection of Research Outputs;
        1.1.2 Sorting Research Outputs;
        1.1.3 Monitoring of Research Outputs; and
        1.1.4 Feedbacking of Results?
    1.2 Submission of Publication Outputs (Soft Copy):
        1.2.1 Collection of Publication Outputs;
        1.2.2 Editing of Publication Outputs;
        1.2.3 Printing of Publication Outputs;
        1.2.4 Sorting of Publication Outputs; and
        1.2.5 Feedbacking of Results?

2. What data management system can be developed to automate the current system?

3. What is the degree of effectiveness of the proposed Data Management System of the Research and Publications Office of St. Paul University Philippines regarding the following software characteristics/capabilities:

3.1 Functionality;

3.2 Reliability;

3.3 Usability;

3.4 Maintainability; and

3.5 Portability?

METHODOLOGY

Research Design

This study is an applied research for it focused on Systems Development to automate processes in organizing research related documents in the office. The system is expected to facilitate in the generation of reports.

Participants of the Study

The 255 participants, which include five (5) groups of users: the administrator, employees of the University, the secretary and dean of each department, and guests, were randomly selected from the different departments. The Slovin's Formula was used to determine the sample size of the participants. For the administrator, the Research and Publications Office managed it. As for the employees, they were the ones who uploaded their researches. The work of the secretary was to upload the researches of the graduating students under their department. The Dean has access to viewing and printing reports of the students who had submitted researches under their department. The guests have to log in to the system to be approved by the administrator to fully view the content of the researches and other relevant information stored in the system.

Data Gathering Instruments

Varied methods of gathering data were used to obtain relevant information needed for the development of the system.

Interview. The researcher interviewed the concerned personnel to understand some information that was beyond the researchers' knowledge.

Observation. Through this method, the researcher was able to formulate questions and see how the system requirements were developed.

Internet Surfing. There were information that were not readily available, so the researcher used the Internet to provide more information about the study and likewise to look for the related study.

Survey Questionnaire. The researcher floated two sets of questionnaires, a pre-survey and post-survey questionnaire. A pre-survey questionnaire was used to assess the degree of seriousness of the problems encountered in the manual system while a post-survey questionnaire was used to determine the degree of effectiveness of the proposed system regarding software characteristics/ capabilities.

Data Analysis

The data were tallied and analyzed according to the objectives of the study and were treated using descriptive statistics.

The following statistical tools were employed in the treatment of the data:

Frequency and Percentage Count. This was used to obtain the participants' readiness and willingness to use the proposed system.

Mean. This was used to determine the differences on the ratings of the participants based on data gathered.

Weighted Mean. The Weighted mean was used as a statistical measure to compute for the average of the obtained data.

Simple Random Sampling and Slovin's Formula. It was used to proportionally allocate the participants per position which include faculty, staff, and guests.

RESULTS AND DISCUSSION

A Summary of the Participants' Assessment on the Current System on Research Output Management

With regard to the submission of research outputs, sorting of research outputs, monitoring of research outputs and feedbacking of results showed that the completeness of the outputs submitted, time allocation spent and effort in categorizing of outputs by department, authors, year conducted and type of research, accuracy and precision in categorizing outputs, viewing of submitted outputs, outright dissemination of feedbacks to the researchers and confirmation in response to the disseminated feedback are "need improvement" items with weighted means of 1.15, 1.48, 1.48, 1.34, 1.44, 1.29 and 1.26, respectively. However, promptness of submission of research outputs by the employees and students, checking of submitted outputs, and verification of submitted outputs are items considered "poor" with weighted means of 1.85, 1.92 and 1.94, respectively. An overall weighted mean on the assessment of the participants on the current system on research output management is 1.52 with a descriptive interpretation of "need improvement." This implies that the participants encountered difficulties in the submission of research outputs in soft copies, sorting, monitoring and feedbacking of results using the current system.

A Summary of the Participants' Assessment on the Current System on Publication Output Management

In terms to the collecting, editing, printing and sorting of publication outputs, and feedbacking of results revealed that the participants considered time and effort in the sorting of publication outputs by date of creation and type of publication, outright dissemination of feedbacks to the researchers and confirmation in response to the disseminated feedback were assessed as "need improvement" with weighted means of 1.56, 1.27 and 1.41, respectively. While, promptness of submission of publication outputs by the employees and students, Completeness of the outputs submitted, Accuracy and precision in editing outputs, time and precision in editing the publications, accuracy and precision in categorizing were considered "poor" with weighted means of 1.81, 1.85, 1.83 and 2.19, respectively. On the other hand, items on confidentiality of the publications and accuracy in editing outputs are considered "satisfactory". Further, the data reveal that the overall weighted mean on the assessment of the participants of the study on the current

system under publication output management is 1.91 with a descriptive interpretation of "poor". This implies that the participants encountered difficulties in the collecting, editing, printing and sorting of publication output and feedbacking of results. With these difficulties encountered by the participants in the submission of research outputs on research and publication which were based on the evaluation of the participants, an intervention could be done to enhance the current transactions and processes, Thus, the researcher proposed a Data Management System to easily track the submission of research and publication outputs of employees as well as viewing of outputs by the guests.

A Summary of the Participants' Assessment of the Proposed System on Research Output Management

On the proposed system which includes submitting, sorting, and monitoring of research outputs, and feedbacking of results, findings showed that the participants considered the item promptness of submission of research outputs by the employees and students got a weighted mean of 2.65 with a descriptive interpretation of "satisfactory". However, the items completeness of the outputs submitted, checking of submitted outputs, verification of submitted outputs and confirmation in response to the disseminated feedback garnered "very satisfactory" result with weighted means of 4.01, 3.52, 4.17 and 3.99, respectively. On the other hand, the items, time allocation spent and effort in categorizing of outputs by department, authors, year conducted and type of research, accuracy and precision in categorizing outputs, viewing of submitted outputs and outright dissemination of feedbacks to the researchers were assessed as "excellent" with weighted means of 4.23, 4.25, 4.23, 4.39 and 4.27, respectively. The overall weighted mean on the assessment of the participants on the current system on Research Output Management is 3.97 with a descriptive interpretation of "very satisfactory". This means that the participants could easily facilitate the transactions and processes on the submission of research outputs in softcopies, sorting and monitoring of research outputs.

A Summary of the Participants' Assessment of the Proposed System on Publication Output Management

For the proposed system which includes the collecting, editing, printing and sorting of publication outputs and feedbacking of result, the items

promptness of submission of Research outputs by the employees and students and completeness of the outputs submitted were rated as "satisfactory" with weighted means of 3.41 and 3.82, respectively. However, the items, time and effort in editing the publications, accuracy and precision in editing outputs, confidentiality of the publications, outright dissemination of feedbacks to the researchers and confirmation in response to the disseminated feedback were described as "very satisfactory" with weighted means of 3.57, 3.51, 4.09, 4.19 and 4.15, respectively. On the other hand, the items, time and effort in sorting of publication outputs by date of creation and type of publication and accuracy and precision in categorizing outputs were rated as "excellent" with weighted means of 4.68 and 4.57, respectively. The overall weighted mean on the assessment of the participants on the current system under publication output management is 3.99 with a descriptive interpretation of "very satisfactory". This implies that the transactions and processes on the collecting, editing, printing and sorting of publication output, and feedbacking of results could easily be facilitated with the use of the proposed system.

A Summary of the Participants' Responses on the Assessment of the Degree of Effectiveness of the Proposed Research and Publications Office Data Management System

Results unveiled that the proposed research and publication data management system regarding its capabilities, particularly on its functionality, reliability, usability, maintainability and portability is "Very High" with an overall mean of 4.45. The result implies that the proposed system is more efficient compared to the current system because it is automated and it contains the desired features/capabilities to facilitate transactions, processes and to keep track on research and publication outputs.

CONCLUSION

From the above findings, the researcher concluded that the proposed Data Management System compared to the current system used by the Research and Publications Office is more efficient in facilitating the different transactions and processes, and in keeping track of files regarding research and publication outputs.

RECOMMENDATIONS

Based on the findings and conclusion of the study, the following

recommendations are offered:

Research and Publications Office may adopt and implement the Data Management System to keep track and easily monitor the research and publication outputs.

System developer conducts an orientation on the use of the Research Data Management System for faculty, students and staff.

The graduating students may be given an orientation on how to access researches in the system.

Research and Publications Office may consider having an IT Graduate to manage the proposed system.

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