

**E-PORTFOLIO FOR TERTIARY LEVEL FACULTY MEMBERS OF  
ST. PAUL UNIVERSITY PHILIPPINES**

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**ABSTRACT**

*Using the descriptive research method, it aimed to develop an E-Portfolio for the 145 tertiary level faculty members including the Director of Human Resource of St. Paul University Philippines. The study also made use of systems development to complete the proposed system including the succeeding steps to carry-out after its initial implementation. The data were gathered through the use of survey questionnaire and interview to obtain the assessment of the participants regarding the existing portfolio management and the proposed e-portfolio. With the use of frequency and percentage and weighted mean, the study ascertained that the assessment of the participants in the transactions and processes of the current system is considered “poor,” while that of the Proposed E-Portfolio is assessed “very satisfactory.” The findings implied that the proposed system could make the transactions and processes more convenient and easier regarding monitoring and update of employees’ Portfolios. The result of the assessment of the efficiency of the proposed system also revealed that the system is “Highly Effective.” Findings revealed that the participants consider the e-Portfolio to be at high degree of effectiveness in the functionality, reliability, usability, maintainability and portability. Therefore, the proposed e-Portfolio, compared with the current system, is more efficient, more functional and more reliable because it can better manage and facilitate the Portfolios of the employees of St. Paul University Philippines.*

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**Keywords:** e-Portfolio, faculty portfolio, employee portfolio

## **INTRODUCTION**

The computer has been a tool to make work more efficient and effective than ever before. It has served a great task in the daily lives of many institutions. Experts in the field of technology have developed many programs to contribute to the society to perform tasks easier and faster. Furthermore, the manual processes that are transformed into computerized systems have proven that technology is a very useful gadget in the lives of many people. It has contributed to the innovation of how things should be done to save time as well as energy and to become more productive in doing things. With the emergence of technology, creative innovation has been introduced to meet the demands of the changing society. To address such change, St. Paul University Philippines, Tuguegarao City, Cagayan has thought of transforming manual processes to computerized systems such as professional portfolio preparation. The portfolio is an organized presentation of an individual's education, creative work samples, competencies, achievements, and skills. As one of the needed requirements of the institution, every employee needs to prepare a portfolio as a basis for his/her professional development and is also used as a tool for the system to rate the employees based on their performance in their careers. Since there has been a race of innovating how the task is to be done, the researcher considered the thought of having e-portfolios to have more efficient file management of documents, thus producing quality output by the employees of the institution. In the manual process of preparing the portfolios of employees of St. Paul University Philippines, the Faculty members have to create their portfolios by gathering desired documents to be submitted to the Director of Human Resource (HR) Office. These have to be used as an essential for evaluation regarding ranking and promotions. Currently, there are rubrics used as bases for assessment and determination of ranks and are used as tools for the HR Director to determine whether there are employees that need to undergo further training. However, it takes a lot of time and effort to go over and review these documents. Besides, these portfolios are not consistently updated by the employees after having attended seminars/training, conventions, and other related activities. Thus, considering the manual system to the big race of innovation, computerization can minimize traffic regarding quality output and provide outright results of assessments of employees. Also, it can also reduce human errors in the

evaluation process and determination of ranks. Automation is the key to having accurate, fast, secure, efficient and effective desired outputs of the institution.

### Conceptual Framework

This study was conceptualized to automate the conventional procedure of completing employee Portfolio in the University.

Furthermore, the development of the Proposed E-Portfolio would be of great advantage, benefit and comfort to the personnel that is involved in updating their portfolios. The proposed E-Portfolio followed the SCRUM process in software development.



Figure 1. The SCRUM Model

### Statement of the Problem

This study aimed to develop an E-Portfolio for the tertiary level

faculty members of St. Paul University Philippines.

Specifically, it sought to answer the following questions:

1. What is the assessment of the participants on the current system regarding the following transactions and processes in Portfolio Management?
  - 1.1 submission of employees' portfolio;
  - 1.2 collecting and filing of the portfolio; and
  - 1.3 updating of existing portfolio?
2. What intervention can be done to enhance the current system?
3. What is the degree of effectiveness of the proposed E-portfolio 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**

The study made use of the descriptive method of research. The data were gathered through the use of survey questionnaire to describe the assessment of the participants regarding the existing portfolio management and the proposed e-portfolio. The study also made use of systems development to complete the proposed system including the succeeding steps to carry-out after its initial implementation.

### **Participants of the Study**

The participants of the study consisted of 145 college faculty members including the Director of Human Resource of St. Paul University Philippines. Simple random sampling through Slovin's Formula was used to allocate the participants per unit proportionally and to determine the said sample size of the participants.

## **Data Gathering Instruments**

The researcher floated two sets of questionnaires, a pre-survey and post-survey questionnaire. A pre-survey questionnaire was used to assess the faculty participants' responses on transactions and processes 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. Interviews were conducted to the Director for Human Resource and Faculty Members regarding the manual process of creating more undertaken results to obtain significant information about professional portfolios. The researcher further examined existing employee portfolios to receive substantial information about employee portfolio.

## **Data Gathering Procedure**

The researcher requested permission from the Director of Human Resource of St. Paul University Philippines to conduct the study and to float the questionnaire to the participants. After the permission was granted, the researcher personally distributed the questionnaires to the participants involved in the study. The researcher also conducted an informal interview to the participants of the study.

## **Data Analysis**

The following statistical tools were employed in the evaluation of the system:

Frequency and Percentage Count was used to obtain the participants' readiness and willingness to use the proposed E-portfolio.

Weighted Mean was used to determine the differences in the ratings of the participants based on the data gathered. An excellent scale was used to interpret the means.

Narrative Analysis was used to organize interview results and analysis of documents.

## **RESULTS AND DISCUSSION**

### ***Summary of the Assessment of the Faculty-Participants' Responses on Transactions and Processes of the Current System***

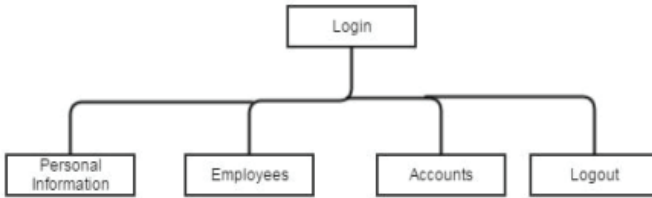
Results revealed that operations and processes of the current system in the submission of Employees' portfolio are "Poor" with an overall mean of 1.88. Regarding Collecting and Filing of Portfolio, result shows that the assessment is "inadequate" regarding transactions and processes with a weighted mean of 2.20. Moreover, operations and processes in updating existing portfolio with the completeness of evidence were assessed as "Needs Improvement." The researcher observed, analyzed and was familiarized with the different processes involved in the problems as well as the various processes involved in the preparation of portfolios to ensure the accuracy in the flow of the system.

### ***Proposed e-Portfolio***

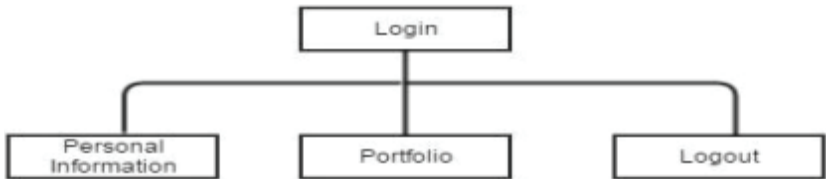
E-Portfolio is an online portal for St. Paul University Philippines employees. It is focused on the digital e-portfolio of St. Paul University Philippines, specifically in the office of the Director of Human Resource. It is conducted to develop an easy, efficient and time-saving system. The system administrator is the Director of Human Resource, which has the task to monitor the ranks of the employees of the University using the system based on the portfolio submitted and filled-up online. The Vice President for Academics and the University President also have access to the network. The administrator and the users can print reports. Generating reports through the computer will be easier than from a manual operation. Reports that the proposed system will develop are only focused on the Electronic portfolio. One of the functions of the system is the search engine which will help the Director of Human Resource, the Vice President for Academics and the University President to quickly search/view a particular employee of the University.

The following figures present the models used in the development of the e-Portfolio.

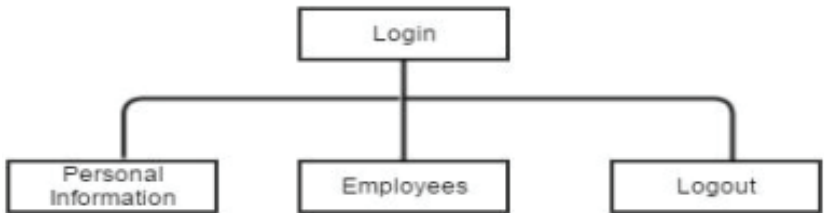
### Administrator's View



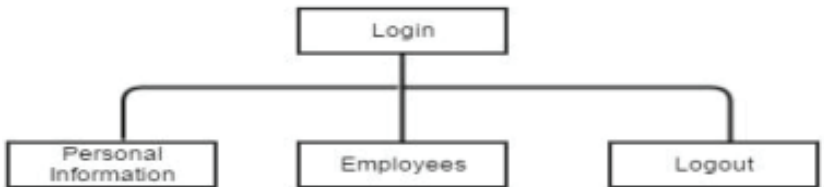
### User's View



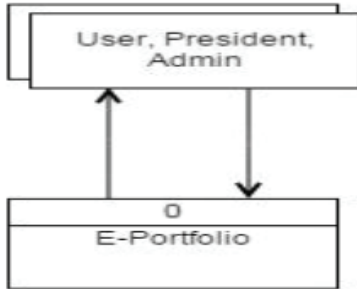
### President's View



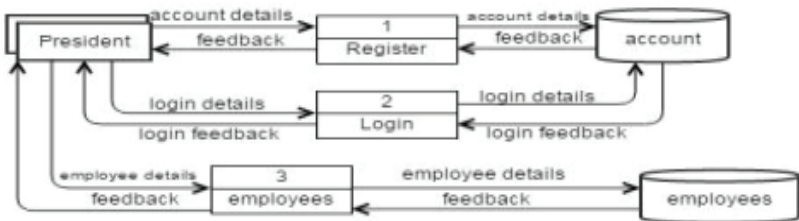
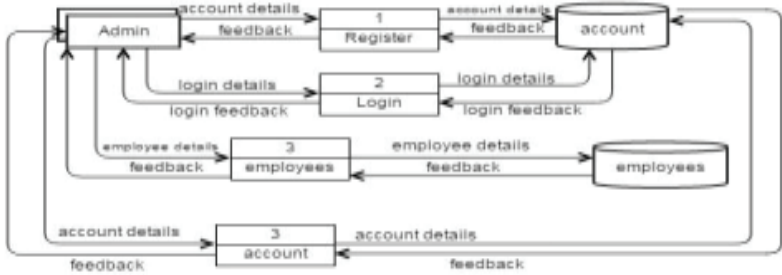
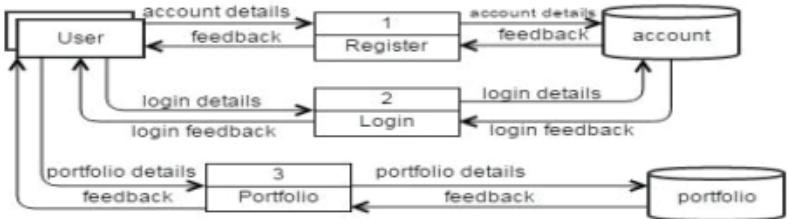
### Dean's View



Data Flow Diagram

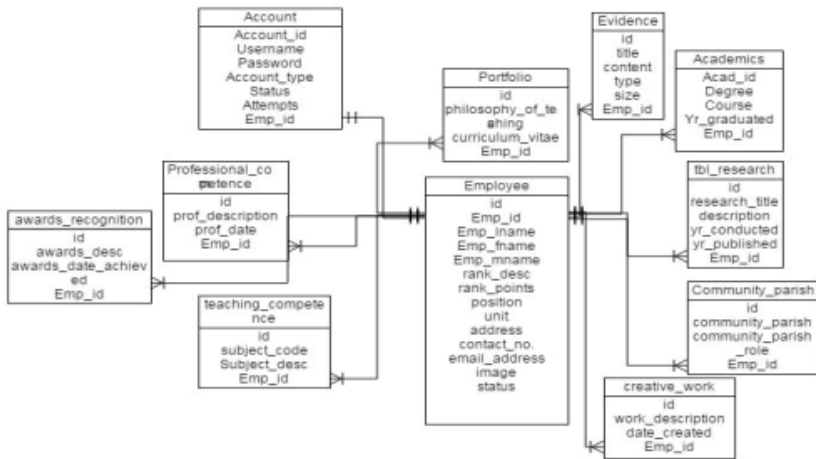


Level 1





## Entity-Relationship Diagram



### ***Summary of the Assessment of the Faculty-Participants' Responses on Transactions and Processes of the Proposed E-Portfolio***

Results revealed that operations and processes of the proposed system in the submission of Employees' portfolio is "Very Satisfactory" with a weighted mean of 3.52. Regarding Collecting and Filing of Portfolio, result shows that the assessment is "excellent" regarding transactions and processes with a weighted mean of 4.21. Moreover, operations and processes in updating existing portfolio of the proposed system are "Very Satisfactory." The findings implied that the proposed system could make the transactions and processes more convenient and easier regarding monitoring and update employees' Portfolios.

### ***Summary of the Assessment of the Faculty-Participants' Responses relating to the Degree of Effectiveness of the Proposed E-Portfolio***

Results showed that the participants assessed the proposed system with "High degree of effectiveness" with an overall weighted mean of 3.68. Finding reveals that the participants appreciated the effectiveness and usefulness of the proposed system.

## **CONCLUSION**

From the above findings, the researcher concludes that the proposed e-Portfolio compared with the current system is more efficient, more functional and more reliable because it can better manage and facilitate the Portfolios of the employees of St. Paul University Philippines.

## **RECOMMENDATIONS**

Based on the findings and conclusion of the study, the following recommendations are drawn:

The researcher may present the proposed E-portfolio to the administrators of the St. Paul University Philippines for approval, implementation, and utilization of the system.

Training may be conducted to all the users on the use of the proposed e-portfolio.

The integration of the Rank Monitoring System for accurate retrieval of data for ranking and promotions purposes.

A dedicated server may be provided to ensure the utilization of the proposed system.

The Vice President for Academics, Deans and Associate Deans may have separate accounts for evaluation of their Faculty.

## ***References***

- Connor, S. (2015, August 11) *Important changes coming to our Eportfolio system*. Retrieved from <https://www.saylor.org/tag/eportfolio/>.
- Donston-Miller, D. (2013) . *7 Ways To Create Eportfolios* <http://www.informationweek.com/software/7-ways-to-create-e-portfolio/d/d-id/1110673>.

*e-Portfolios with Google Apps*. Retrieved from <https://sites.google.com/site/eportfolioapps/overview>.

*e-Portfolio Basics: What is an e-portfolio?* Retrieved from [http://academic.regis.edu/LAAP/eportfolio/basics\\_what.htm](http://academic.regis.edu/LAAP/eportfolio/basics_what.htm).

Jenkins, E. (2015). *Software Development Methodologies* <http://agilerules.blogspot.com/2014/07/softwaredevelopment-methodologies.html>.

Kleiman, L. S. *Employee evaluation and performance appraisals*. Retrieved from <http://www.referenceforbusiness.com/management/Em-Exp/Employee-Evaluation-and-Performance-Appraisals.html>.

Padilla, R. C. (2013). *Library System of the Cagayan State University Piat Campus, Piat Cagayan*.

Paguigan, L. A. (2013). *Computer-Aided Entrance Examination of the Regional Science High School, Tumauni, Isabela*.

Shuttleworth, M. (2008, March 17). *Research Hypothesis*. Retrieved Jan 12, 2015, from Explorable.com:<https://explorable.com/research-hypothesis>

Zimmerman, E. (2012, June 30). *“Career Couch: Showcasing Your Work, in an Online Portfolio.”* New York Times.[http://en.wikipedia.org/wiki/Electronic\\_portfolio](http://en.wikipedia.org/wiki/Electronic_portfolio).