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ACCEPTABILITY OF FACULTY E-PORTFOLIO FOR PROFESSIONAL CREDENTIALING

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Abstract - *This research was carried out at the Cebu Technological University Main and Extension campuses. A survey questionnaire and content analysis were used in this descriptive-developmental study. Purposive sampling was used to identify AACCUP Area 2 accreditors, task force members, and the focal person. As data treatments, frequencies, percentages, and weighted means were utilized. The acceptance of the designed Faculty E-Portfolio for the Cebu Technological University - Main and Extension Campus, Cebu, Philippines, was evaluated. Furthermore, the information-related and AACCUP Area 2 Faculty criteria served as the foundation for the construction of the Faculty E-Portfolio for Record Management system. In this study, the acceptability of the generated Faculty E-Portfolio based on the technology acceptance model was examined It also identified the hurdles and challenges in the Faculty E-Portfolio for Record Management System implementation. On the basis of the study's findings, it can be concluded that the Main and Extension Campuses of Cebu Technological University require an information system that concentrated on the record management of AACCUP Area 2 in the faculty parameter. The research also revealed that Faculty E-Portfolio technology adaptation for Record Management System is recommended.*

Keywords: *Technology Management, Faculty E-Portfolio, Professional Credentialing.*

Introduction

The majority of institutions are required to comprehend the impact of Information and Communication Technology on modern society. It is one of the most significant factors in bringing about necessary and relevant changes in higher education institutions (Bates et al., 2011). The institution will achieve quality and standards as a consequence of the use of technology in the administration of faculty or teaching portfolios. Recognized is the need for electronic portfolios, but manual recordkeeping is still prevalent at present. Even though the academic community is aware of the needs, problems and concerns continue to emerge.

In the majority of universities, the constant and regular updates, monitoring, and inaccessibility of paper-based documents, which results in the disintegration of data due to folder filing, impose a burden on the faculty and a time constraint. It is common knowledge that portfolio methods are utilized to document professional development in teaching (Abu, Seman, Wan Rasir, & Nasir, 2012). The need for portfolio enhancement must be addressed due to the heavy workload and dearth of information regarding compliance with requirements. The problem posed by the electronic portfolio requires a technological solution.

According to Seman et al. (2012), E-Teaching Portfolio is of great assistance in terms of preparing evidence to support the teaching and learning process, as a reflective instrument for the teaching abilities, and as a means of supporting their self-evaluation review. Eliminating physical records and paper documents and placing them in an e-portfolio system accessible by department leaders and human resource capital. The faculty e-portfolio digitally stores and manages the faculty member's personal profile, professional development, research profile, extension, and production.

Institutions, administrations, human resource capital, and faculty all benefit from electronic faculty portfolio management, hence it should be ubiquitous. According to Reese and Levy (2009), electronic portfolios' adaptability is demonstrated by the wide range of goals held by its users in different institutions across the country. They have evolved into a tool for career guidance, a pillar of academic advice, and a certification mechanism in a variety of settings. In addition, institutions may do rid of mountains of paper, make it easy for teachers to work together on assignments and communicate with one another, and safely keep sensitive information in a central repository called a "document center" (Faculty ePortfolios, 2011).

In contrast to the typical three-ring binder used to arrange the acquired physical information, which is extremely time-consuming for both the administrator and the NBC 461 assessors, an electronic portfolio may be retrieved and accessed by multiple users at the same time. As Lorenzo and Ittelson (2005) pointed out in Teaching Portfolio, the material for an e-portfolio can be uploaded to the website, which makes the certification process more open and accessible to the public.

In addition, given that Cebu Technological University has a large number of extension campuses, each of which maintains a large number of faculty records and portfolio updates, the process of reviewing and receiving access to faculty information is one that requires a significant amount of time. The university has been retrieving and updating the personal data of its faculty members manually each year, in addition to dealing with a large number of school accreditations and manually storing, monitoring, evaluating, and generating reports. (Faculty e-Portfolio, 2011) It is possible for educational institutions to facilitate faculty collaboration for the purposes of facilitating easy communication and the exchange of documents, as well as the storage of confidential materials in a document center and the elimination of a vast quantity of paper works. According to Shaefer (2015), electronic portfolios allow administrators the opportunity to examine the work prior to seeing the individual and ease some of the concerns that a single copy without a backup may be lost if given to an unauthorized person. In addition, electronic portfolios provide a solution to the problem that a single copy may be lost if it is handed to an unauthorized person.

An electronic portfolio, in addition to being available to a number of different people, offers concrete evidence that you are able to make efficient use of technology and incorporate it into your professional life. If electronic portfolios were used instead of paper ones, faculty members, department heads, and human resource personnel would have an easier time checking compliance. The use of teaching portfolios as part of the evaluation of teaching standards and recognition for the National Board of Professional Teaching Standards, as stated by Degrow (2013), is one way in which the Douglas County School District, which is located south of Denver, can demonstrate its commitment to the highest levels of teaching quality. He

went on to say that starting in the near future, all educators in the state of Colorado, including administrators, will be required to compile portfolios in order to maintain their professional licenses (Degrow, 2013).

The University of the Philippines developed a manual requiring faculty to submit a teaching portfolio that demonstrates their values in the teaching community through evidences of their philosophy teaching quality, innovativeness, range of teaching, and continuous self-improvement. The portfolio will be evaluated in order to make decisions regarding appointment, tenure, and promotions, as well as grants and other incentives (University of the Philippines (UP), 2004). On the Main Campus of Cebu Technological University, maintaining faculty records for evaluations, updating PDS (Personal Data Sheet) annually, and gaining access to this information is a laborious and time-consuming procedure for the faculty, department heads, and Human Resource Office. Currently, the school stores faculty information manually, and it would be reassuring to automate the faculty portfolio management process. The university is pursuing AACCUP accreditations, and the faculty portfolio is one of the essential components.

Similarly, twice per academic year, all faculty must submit an IPCR (Individual Performance Commitment and Review), which includes the Faculty Profile, Curriculum, Instructions, Accreditation/Certification, Research Services, Technical Advisory and Extension Services, and Support to Operation. To be evaluated, documents must be submitted to IPCR and filed in folders and filing cabinets. Due to the time-consuming nature of verifying faculty profiles to meet the requirements of the governing bodies, these could result in significant inconvenience and future problems. Reviewing all faculty documents in a singular portfolio is more convenient.

In light of the need for easy access to faculty records and documentation in the context of accreditation and performance reviews, the researcher created an information system resembling an electronic portfolio to meet this need. Cebu Technological University's Faculty E-Portfolio standardizes the collection, storage, monitoring, evaluation, and documentation of faculty data to create a user-friendly environment for managing faculty records. Cebu Technological University's faculty manual and Area 2 of the AACCUP Faculty parameters served as the basis for the design of the system. Having a centralized system where department heads and the HR office may easily check and verify all faculty information required for each parameter of AACCUP Area 2 Faculty parameters.

Methods and Materials

This design utilized the descriptive-developmental method of research. A modified questionnaire regarding Technology Acceptance Model from Davis (1986) and the AACCUP Area 2 Faculty parameters were used to gather information for the development of the system. This also employed analysis and gathering of data in the design and development of the system. The design of the system was using the Unified Modeling Language (UML) which is a visual modeling tool, as well as notation, specifying, modeling and documenting object-oriented and component based system architectures.

The study was conducted in Cebu Technological University – Main Campus and Extension Campuses using a purposive sampling targeting AACCUP Area 2 Accreditors, Focal Persons and Task Force. Respondents were given a questionnaire for a survey. AACCUP Area

2 Accreditors, Focal Persons, and Task Force in Cebu Technological Main Campus and Extension Campuses Naga Extension Campus, San Fernando Extension Campus, Pinamungajan Extension Campus, and Dumanjog Extension Campus were the respondents in this study. The study was devised in accordance with AACCUP Area 2 Faculty parameters.

In addition, a modified version of the Davis Technology Acceptance Model questionnaire (Davis, 1988) was the primary data collection instrument. The questionnaire was divided into three sections: a) faculty information, b) record activity, and c) perception of the record system. The second section of the instrument consists of the respondent's acceptance of the developed faculty e-portfolio for professional credentialing based on the technology acceptance model, and the third section consists of the respondent's identified barriers and challenges in implementing the faculty e-portfolio for professional credentialing.

Results and Discussion

This section of the study uses the technology acceptance model to determine the degree to which the produced faculty e-portfolio is acceptable for professional certification. In order to evaluate the usability of a design, it is critical to ascertain its effectiveness, efficiency, and satisfaction. Since research aims to determine the acceptability of the proposed system, such as perceived usefulness, perceived ease of use, behavioral intention of use, and actual usage of the design, current research has concentrated on the Technology Acceptance Model (TAM)..

Perceived Usefulness

The respondent's acceptance of the created Faculty E-Portfolio for Professional Credentialing using the Technology Acceptance Model (TAM) is discussed in the first section. As indicated in Table 1, it decides whether the respondent is acceptable in terms of efficiency in data acquisition, finding data in data storage, monitoring data, proficiency in data acquisition and retrieval, and usefulness in evaluation.

Table 1. Acceptability of the design Faculty E-Portfolio for Professional Credentialing as to Perceived Usefulness

Perceived usefulness	**SA (5)**	**A (4)**	**N (3)**	**D (2)**	**SD (1)**	**TWP**	$\bar{X}$	**VD**
1.Using the Faculty E-Portfolio would increase the efficiency in acquiring data.	31	13	5	0	0	222	4.53	SA
2.The Faculty E-Portfolio allow me to find the data stored in the system.	28	16	5	0	0	219	4.46	A
3.The Faculty E-Portfolio would make it easier to keep track and monitored the data.	33	14	2	0	0	227	4.63	SA
4.The Faculty E-Portfolio would allow me to immediately acquire	30	15	4	0	0	222	4.53	SA

and retrieved the data need in the portfolio.								
5.The Faculty E-Portfolio would be useful for evaluation.	27	17	5	0	0	218	4.45	A
Average Weighted Mean							4.52	SA

Legend: SA = *Strongly Agree4.51-5.00;* A = *Agree 3.51-4.50;* N = *Neutral 2.51-3.50;* D = *Disagree 1.51-2.50;* SD = *Strongly Disagree 1.00-1.50* TWP =*Total Weighted Points* X = *Weighted Mean;* VD = *Verbal Description*

In terms of perceived usefulness, the respondents strongly concur, with an average of 4.52 as displayed in table 1. This indicates that the respondents approved the information system since it makes it simple for them to use predetermined templates to connect with the system. The created system uses the internet to gather data for every parameter of AACCUP Area 2 Faculty that must be recorded in the central database for data acquisition and retrieval. According to the article "What is Document Retrieval" in the book Why Record Management, "full text search enables a user to decide to search on only the titles or indexes of their documents, but also the content within the documents" (What is Document Retrieval). This again achieves convenience.

Users can save their posted papers as pdfs on their computers and mobile devices by clicking the download button. As a result, anything you need, wherever you are, is much easier to acquire. According to MacKechnie (2016), "from the moment the document is scanned, it becomes accessible from any computer." This is one of the main advantages of an electronic document management system. This provides an easy solution. Users are relieved of the stress of memorizing and specifying formats when available templates and standard formatting are provided, as argued by Smith and Mosier (2015).

Perceived Ease of Use

The second component of the acceptability of the developed Faculty E-Portfolio for Professional Credentialing as measured by the Technology Acceptance Model (TAM). As shown in Table 2, it classifies the acceptability of the system's usability in terms of system utilization, information retrieval, user interface, and system flexibility.

Table 2. Acceptability of the design Faculty E-Portfolio for Professional Credentialing as to Perceived Ease of Use

Perceived Ease of Use	**SA (5)**	**A (4)**	**N (3)**	**D (2)**	**SD (1)**	**TWP**	**$\bar{X}$**	**VD**
1.It is easy for me in learning to operate the Faculty E- Portfolio	30	15	4	0	0	219	4.53	SA

2.It is easy for me to find the information that I am looking for using the Faculty E-Portfolio	31	12	6	0	0	221	4.51	SA
3.The user interface of the Faculty E-Portfolio is clear and intuitive.	29	15	5	0	0	220	4.49	A
4.The Faculty E-Portfolio is flexible to interact with.	28	17	4	0	0	220	4.49	A
5.The Faculty E-Portfolio is easy to use (user-friendly).	31	12	6	0	0	221	4.51	SA
Average Weighted Mean							4.51	SA

Davis (1989) defines perceived simplicity of use as the degree to which an individual believes that employing a particular system will be effortless. With a mean score of 4.51, there is broad consensus among respondents that the system's design is acceptable in terms of perceived ease of use. This demonstrates that, despite the fact that AACCUP Area 2 in Faculty parameters is so extensive and requires numerous documents in each parameter, respondents find the system simple to use. User friendliness and user acceptance are two of the most challenging requirements for an e-portfolio system to meet, as "users are known to quickly become frustrated and abandon a confusing application" (Jafari, 2004). Choosing a database management system (DBMS) is a crucial aspect of design. Lovell, Magrabi, Celler, Huynh, and Garsden (2001) state that DBMSs are either file-based or client/server. Uncomplicated and paperless accreditation would require a digital repository for faculty development. Two required documents for AACCUP accreditation.

The system is designed to aggregate pdf files so the server can query and process them rapidly. Thus, it will be able to analyze a large number of documents simultaneously. MacKechnie emphasized that a company could search the document database for a client's name if it needed to locate every file that mentions a particular client. This converts ordinary files into massive information databases that can be utilized for marketing, auditing, and administration" (MacKechnie, 2016).

Behavioral Intention to Use

The third component of the Technology Acceptance Model (TAM) used to assess the acceptability of the developed Faculty E-Portfolio for Professional Credentialing from the perspective of the respondent. It determines whether the respondent has a clear understanding of the system's functionality. As shown in Table 3, it also includes respondents' acceptance that Faculty E-Portfolio protects users' privacy, is dependable, risk-free, and can be managed.

Table 3. Acceptability of the design Faculty E-Portfolio for Professional Credentialing as to Behavioral Intention to Use

Behavioral intention to use	SA (5)	A (4)	N (3)	D (2)	SD (1)	TWP	$\overline{X}$	VD
1.I have a clear conception of the functionality of the Faculty E-Portfolio.	28	15	6	0	0	218	4.44	A
2.The Faculty E-Portfolio protects the privacy of its users.	26	17	6	0	0	216	4.40	A
3.I feel confident that the Faculty E-Portfolio is reliable.	30	15	4	0	0	219	4.53	SA
4.I believe it is risk-free to use the Faculty E-Portfolio.	31	13	5	0	0	222	4.53	SA
5.I feel confident that I can keep the Faculty E-Portfolio under control.	28	16	5	0	0	219	4.47	A
Average Weighted Mean							4.47	A

Information contained in computerized information systems has always been subject to security concerns. In terms of behavioral intend to use, respondents concur with the weighted mean average of 4.47. According to Nollau (2009), it is essential to understand disaster recovery (DR), business continuity (BC), and contingency plans (CP) and how they all work together to ensure the continuity and integrity of systems as well as the availability of data and records in today's technological and automated environment. This is especially true given the prevalence of automated environments.

Actual System Use

The fourth component of the Technology Acceptance Model (TAM) used to assess the acceptability of the developed Faculty E-Portfolio for Professional Credentialing from the perspective of the respondent. As shown in Table 4, it acknowledges the respondent's acceptability in terms of the ability to use the Faculty E-Portfolio, including the enjoyment and benefit of knowing how to use the system.

Table 4. Acceptability of the design Faculty E-Portfolio for Professional Credentialing as to Actual System Use

Actual System Use	SA (5)	A (4)	N (3)	D (2)	SD (1)	TWP	$\overline{X}$	VD
1.I am capable of using the Faculty E-Portfolio.	31	13	4	1	0	221	4.51	SA
2.I have fun using the Faculty E-Portfolio.	27	15	6	1	0	215	4.39	A
3.Using the Faculty E-Portfolio gives me an advantage over those who don't.	29	15	4	1	0	219	4.47	A

4.I find it rewarding to use the Faculty E-Portfolio.	28	17	3	1	0	219	4.47	A
5.Using the Faculty E-Portfolio is a good idea.	30	16	2	1	0	222	4.53	SA
Average Weighted Mean							4.47	A

The respondents agree that the actual use of the Faculty E-Portfolio is acceptable, with an average mean score of 4.47, due to the rapid retrieval and viewing of data required in AACCUP Area 2 Faculty parameters. Consequently, various e-portfolio systems offer varying degrees of controllability and robustness in terms of managing the flow and appearance of content (such as text, multimedia, and web links).

Some document management systems, in addition to presenting users with a list of documents that match their search criteria, display context lines for each occurrence of the search word within each document. This allows users to more easily find what they're looking for. According to Laserfiche (2014), lines of context provide users with assistance in locating the right document without forcing users to see all of the search results.

Summary of Acceptability

The summary of the respondent's acceptability of the developed Faculty E-Portfolio for Professional Credentialing using the Technology Acceptance Model (TAM). It contains the respondent's acceptability of the system pertaining to perceived usefulness, perceived ease of use, behavioral intention to use and actual system use, as shown in Table 5.

Table 5. Acceptability of the design Faculty E-Portfolio For Professional Credentialing as to Technology Acceptance Model

TAM Constructs	SA (5)	A (4)	N (3)	D (2)	SD (1)	TWP	$\bar{X}$	VD
1. Perceived usefulness	30	15	4	0	0	222	4.52	SA
2. Perceived Ease of Use.	30	14	5	0	0	221	4.51	SA
3.Behavioral intention to use	29	15	5	0	0	219	4.47	A
4. Actual System Use	29	15	4	1	0	219	4.47	A
Average Weighted Mean							4.50	A

Included in the criteria for a successful e-portfolio system are usability, a resilient integrated technology architecture, lifelong support, standards, and portability (Jafari, 2002). With an average weighted mean of 4.51 based on the technology acceptance model, respondents concur with the acceptability of faculty e-portfolios for professional credentialing. According to Hassan and Bhatti's (2016) journal article, academic programs must monitor, evaluate, and develop in order to obtain or maintain accreditation from standards bodies. Data acquisition, management, statistical analysis, and aggregation of results are essential tasks for achieving this objective.

Conclusion

Based on the findings of the study, it can be concluded that the Main and Extension Campuses of Cebu Technological University require an information system that focuses on the professional credentialing of AACCUP Area 2 in the Faculty parameter for the faculty

portfolio, specifically the Faculty E-Portfolio for Professional Credentialing. Existing paper-based and manual faculty parameter process for AACCUP Area 2. The parameters of AACCUP Area 2 in Faculty Parameters served as the foundation for the development of the Faculty E-Portfolio for Professional Credentialing at the Main and Extension Campus of Cebu Technological University. This would significantly enhance the collection of documents required for AACCUP Area 2 in Faculty parameters, while simultaneously allowing faculty to evaluate the documents required for each parameter in AACCUP Area 2 in Faculty parameters. The study also demonstrated the implementation of the system design's acceptability. Despite the fact that implementation of Faculty E-Portfolio for Professional Credentialing still faced obstacles and difficulties, these can be overcome through orientations and training activities.

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