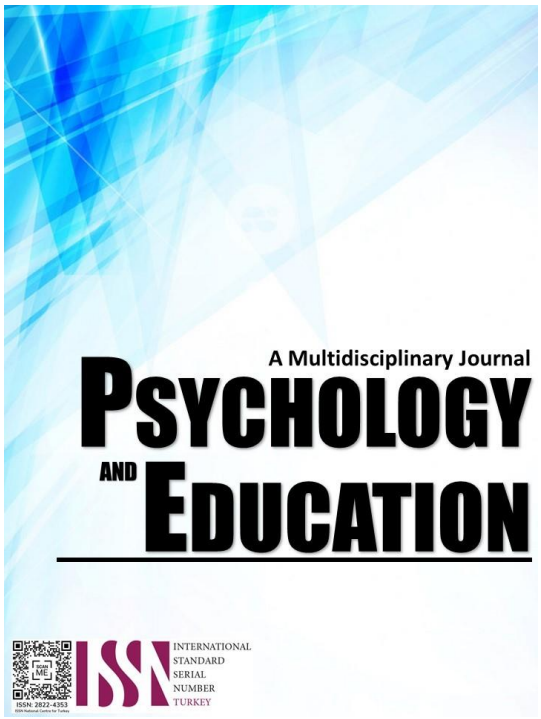
DIGITAL TECHNOLOGY IMPLEMENTATION AND ADOPTION OF PRIVATE HIGHER EDUCATION INSTITUTIONS (HEIS) IN REGION XII, PHILIPPINES



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Research Article

Digital Technology Implementation and Adoption of Private Higher EducationInstitutions (HEIS) in Region XII, Philippines

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Abstract

The study was conducted to assess the digital technology implementation and adoption of Private Higher Education Institutions (HEIs) in Region XII. The study revealed that average age of the respondents is 28. Majority of the respondents were males, college level and used the internet everyday for research. Almost all of the respondents used the Institution's website once a month. All the perceived digital technology adoption factors had a qualitative description of Agree. All the statements under behavioral intention had a qualitative description of Agree. The level of adoption was very high. The sex, age and educational attainment of the respondents had no significant relationship to performance expectancy, effort expectancy, social influence and facilitating conditions. In the same manner, there is no significant relationship between socio-demographic profile of the respondents and perceived digital technology adoption factors of Higher Education Institutions in Region XII. In addition, there is no significant relationship between behavioral intention of Respondents and digital technology adoption of Private Higher Education Institutions in Region XII. Furthermore, there is no significant relationship between digital technology implementation and digital technology adoption of Private Higher Education Institutions in Region XII. Finally, the perceived digital technology adoption factors have a significant influence on the behavioral intention of Private Higher Education Institutions respondents in Region XII.

Keywords: *implementation, digital technology, private higher education institutions (HEIS), college level*

Introduction

The world has been experiencing a digital revolution and the Philippines has the opportunity to play an enormous role in it. Information and Communications Technology (ICT) has been an important part in the country's development. Opportunities did abound with the help of ICT.

Concepts that were previously not even a glimmer of thought is now commonplace, due to the technology and convenience that ICT has brought. Ideas and thoughts are now easily exchanged, developed, and implemented with less cost and less time, allowing for innovations and new ways of thinking. The previous ICT road map laid the foundation for the development of ICT in the country.

The Digital technology has allowed Filipinos to be more than just informed and updated on the latest trends in technology; it helped create citizens who are proactive and innovative – blazing trails instead of just following what has been done before. With the continuous utilization of digital governance, we have built a citizenry not just knowledgeable on ICT, but also adept in it. We envisioned a new generation of Filipinos becoming more than consumers of technology and its products. We wanted them to become creators – building on and improving existing technology and producing digital content that improves personal productivity and contributes to the national economy. The Philippines has been positioning itself at the forefront of the digital revolution – dynamic and in command of the future.

Through the ever continuous utilization of new trends, people are able to achieve and reap the benefits of what ICT brings: better education, a better and stronger economy and industries; and overall, a better quality of life for Filipinos. The emergence of digital governance in developing countries such as Philippines has increasingly grown due to its innovation in public service delivery to improve its capabilities by means of providing effective and efficient services to its stakeholders. Through these amazing benefits, ICT or Information and Communications Technology have been very relevant in so many ways.

Moreover, in less developed Sub-Saharan African countries, the implementation of digital governance initiatives in most cases have been failures. As reported by Heeks (2003), 35% of e-government projects in developing countries are total failures, 50% are partial failures, while the remaining 15% are successes. The challenges that hindered the successful implementation of digital governance initiatives in the Sub-Saharan African countries has led to diversified implementation strategies at the various levels

(Middleton, 2007). This news has been very promising in so many levels.

Furthermore, in the ASEAN Region, particularly in Malaysia, the study revealed that ICT's were used to induce changes in governance presents a big potential in opening up governance processes, but it should be preceded by good governance foundations. Republic of Korea on the other hand has retained the top spot in 2014 with its continued leadership and focus on e-government innovation. Australia (2nd) and Singapore (3rd) have both increased considerably over their 2012 global rankings. As in previous years, the 2014 survey has shown that Europe continues to lead with the highest regional E-Government Development Index (EGDI) followed by the America's led by the United States of America (ranked 7th globally). In the 2010 survey, the Philippines ranked 78th overall and 4th among the ten ASEAN countries. From 2003 to 2010 the Philippines' percentile ranking fell from 81st to 58th (UN E-government Survey, 2014).

In a country like Philippines, the rapid growth and development in the country have been made possible because of Information and Communications Technology. This has been the very reason why different organizations in Public or Private have been taking advantage of ICT to make their businesses grow. The Academic Institutions such as the Private Higher Education Institutions have been using ICT as a major tool in achieving their respective goals and objectives.

After a very careful consideration, there is really a need to have a digital technology in the Philippines. This need is so true especially in the Private Higher Education Institutions in Region XII, three (3) different Private Higher Education Institutions (HEIs) namely: Notre Dame of Dadiangas University (NDDU), Notre Dame of Marbel University (NDMU), and Notre Dame University (NDU) have implored the aid of digital technology in achieving its goals and objectives towards promoting a quality service to its clientele.

Significance of the Study

There have been so many studies that were conducted in relation to digital technology in the Philippines. Unfortunately, none of them directly pertains or focuses on the implementation and adoption of Private Higher Education Institutions, especially in Region XII.

In this view, this research has endeavored to develop a better understanding on the gap that is present in digital technology implementation to adoption of Private Higher Education Institutions, specifically in Region XII, Philippines.

The results of this study can be very relevant for policy-makers and decision-makers, in terms of the development of a better understanding the need of the respondents. The study can reinforce the significance of particular factors that needs to be considered to increase digital technology services implementation and adoption of Private Higher Education Institutions in Region XII, Philippines.

As a researcher, the result of the study has helped widen and deepen his comprehension on the different concepts, parameters and technicalities associated with digital technology implementation and adoption of Private Higher Education Institutions. Moreover, the result has helped the Policy-makers and Decision-makers in terms of developing a policy that would help the community to take advantage of Digital Technology to achieve its respective goals and objectives.

Research Objectives

The general objective of this study was to assess the digital technology implementation and adoption of Private Higher Education Institutions (HEIs) in Region XII. Specifically, it aimed to:

1. describe the profile of Private Higher Education Institutions in Region XII;
2. describe the socio-demographic profile of the Private Higher Education Institutions Respondents in Region XII;
3. determine the internet and institution's website usage of Private Higher Education Institutions Respondents in Region XII;
4. determine the status of implementation of digital technology of Private Higher Education Institutions in Region XII;
5. determine the perceived factors influencing digital technology adoption of Private Higher Education Institutions Respondents in Region XII;
6. determine the behavioral intention in the adoption of the digital technology of Private Higher Education Institutions Respondents in Region XII;
7. determine the level of adoption of digital technology of Private Higher Education Institutions Respondents in Region XII;
8. determine if there is a significant relationship between socio-demographic profile of the Respondents and perceived digital technology adoption factors;
9. determine if the perceived digital technology

adoption factors has significant influence on the behavioral intention of Private Higher Education Institutions Respondents in Region XII;
10. determine if there is a significant relationship between behavioral intention and digital technology adoption of Private Higher Education Institutions Respondents in Region XII; and
11. determine if there is a significant relationship between digital technology implementation and digital technology adoption of Private HEIs in Region XII.

Methodology

Research Design

Multi-method research combining descriptive-correlational and causal research designs were used in the study. Two main phases for multi-method research were: qualitative research strategy using documentary analysis. Second phase quantitative research strategy using survey questionnaire.

In descriptive method, documentary analysis technique was employed to determine the level of implementation of digital technology using the websites of three (3) different Private Higher Education Institutions in Region XII.

In quantitative method, survey questionnaire was utilized to determine the level of adoption of students, teaching, and non-teaching staff to the digital technology. Correlation design was used to determine the relationship of the following: the status of implementation to the level of adoption of digital technology, the demographic profile (gender, age, and educational attainment) to the perceived digital technology adoption factors and the behavioral intention to the level of adoption of digital technology.

Causal design was used to determine the influence of perceived factors influencing digital technology adoption to the behavioral intention to adopt digital governance if there be any.

Locale of the Study

Notre Dame of Dadiangas University (NDDU) situated in General Santos City, Notre Dame of Marbel University (NDMU) situated in Koronadal City and Notre Dame University (NDU) situated in Cotabato City, are the three (3) Private Higher Education Institutions which are located in Region XII also known as SOCCSKSARGEN Region, were the main sites of the study.

Respondents of the Study

To answer the level of adoption of digital technology, respondents of the study were the students, teaching, and non-teaching staff (research, extension, and resource generation).

Sampling Procedure

Stratified random sampling was used to determine the sample size. For the students sampling frame, fifty percent (50%) of the student respondents were taken from Information Communication Technology/Information Technology related courses and the remaining fifty percent (50%) remaining were taken from non-ICT/IT related courses.

Seventy five percent (75%) of the employee respondents were taken from the Teaching personnel and the twenty five percent (25%) were taken from the Non-Teaching personnel.

Research Instrument

In qualitative strategy, e-governance model authored by Wescott (2001); Memorandum Circulars (MC) No. 2002-01 and 2003-01 issued by National Computer Center (NCC) in the Philippines and American Society for Public Administration (UN-ASPA) five stages of e-government were integrated to form a survey questionnaire to be used in evaluating the different websites of Private HEIs websites were evaluated using five (5) factors in digital governance which are service, usability, content, citizen participation and privacy/security.

The homepage of the different Private Higher Education Institutions can be found in Google search engine. These are: http://www.nddu.edu.ph/, http://www.ndmu.edu.ph/ and http://www.nducotabato.org/. To ensure reliability and accuracy, each institution's website has been assessed by all the respondents.

A modified survey questionnaire adapted from Al-Shafi (2009) was used to determine the level of adoption of students, teaching, and non-teaching personnel on digital technology. It is composed of three parts: first part contained the socio-demographic profile of the respondents; second part contained the

internet and institution's website usage; third part were the the factors affecting the digital governance adoption composed of four (4) parts: performance expectancy, effort expectancy, social influence and facilitating conditions which is adapted in the United Theory of Acceptance and Use of Technology (UTAUT) authored by Venkatesh, et al., (2003). Some statements were modified to ensure fitness in the study.

Data Gathering Procedure and Data Gathered

For qualitative data, initial survey was done to familiarize with the different components that should be available in three (3) different Private HEIs' websites. Using the questionnaire, websites were evaluated using five (5) criteria in digital governance which are: service, usability, content, citizen participation, privacy and security. All the respondents of the study were the evaluators of the institution's website where they belong respectively.

For quantitative data, a letter of permission addressed to the university president seeking permission to conduct survey in the premises of the school was hand carried to their office. After the approval, a formal survey was conducted in selected participants of the survey. A brief explanation for the purpose of the research was introduced. Participation was in a voluntary basis. After the respondents answered the survey, a validation of the survey questionnaire was performed to assure that all the necessary data were provided. Respondents who refused to complete the survey were replaced to meet the desired sample size of the study.

Secondary data in the formulation of survey questionnaire for documentary analysis were taken from e-governance model authored by Wescott (2001); Memorandum Circulars (MC) No. 2002-01 and 2003-01 issued by National Computer Center (NCC) in the Philippines; and American Society for Public Administration (UN-ASPA) five stages of e-government.

Results and Discussion

Profile of Private Higher Education Institutions in Region XII

Table 1 outlines the profile of private Higher Education Institutions in Region XII.

Notre Dame of Dadiangas University. NDDU was established in the year 1953. The campus of NDDU is located at General Santos City. In terms of instruction, NDDU has 1210 faculty members who contributed significantly to the performance of the Institution. Moreover, NDDU has 3628 students all in all under its undergraduate programs. In addition, the school offers a total of 21 courses under its undergraduate and graduate programs.

Notre Dame of Marbel University. The campus of NDMU is located in Koronadal City. NDMU was established in 1955. The school already has 1232 faculty members who contributed significantly to the performance of the Institution in terms of providing a quality service to all its clientele. NDMU has a total of 3697 students under all its undergraduate programs. In the status quo, NDMU offers 33 courses under its undergraduate and graduate programs.

Notre Dame University. The school has a total of 28 courses under its undergraduate and graduate programs. The school was established in 1948. In terms of instruction, NDU has 1196 faculty members who contributed significantly to the performance of the Institution. NDU has a total of 4485 students under all the undergraduate programs. The school has been performing really well especially in courses with board examinations.

Table 1. *Profile of the Private Higher Education Institutions Respondents in Region XII, 2016*

Private HEIs	*NDDU*	*NDDU*	*NDU*
Year Established	1953	1955	1948
INSTRUCTION			
No. of Students	3628	3697	4485
No. of courses	21	33	28
No. of Faculty	1210	1232	1196

Socio-Demographic Profile of Private Higher Education Institutions Respondents in Region XII

Socio-Demographic Profile of the Respondents

Table 2 discusses the socio-demographic profile such as age, gender and educational attainment of all the respondents of Higher Education Institutions in Region XII.

Age. The average age of all the respondents is 28. For students, 36.70% of the respondents were in the age bracket of 16-20, 7.45% were in the age bracket of 21-25 and 7.98% were in the age bracket of 26-30.

Psych Educ, 2023, **8**: 304-316, Document ID:2023 PEMJ6650, doi:10.5281/zenodo.7854172, ISSN 2822-4353
Research Article

For Teaching Employees, 13.65% of the respondents were in the age bracket of 31-35, 7.45% were in the age bracket of 41-45 and 5.85% were in the age bracket of 36-40. Then, 4.43% of the respondents were in the age bracket of 26-30, 2.48% were in the age bracket of 51-55, 1.06% was in the age bracket of 46-50 and 0.53% was in the age bracket of 21-25.

For non-teaching employees, 3.19% of the respondents were in the age bracket of 26-30, 2.30% were in the age bracket of 36-40 and 1.60% was in the age bracket of 46-50. Then, 1.60% of the respondents were in the age bracket of 51-55, 1.42% was in the age bracket of 31-35, 1.24% was in the age bracket of 41-45, 0.35% was in the age bracket of 21-25 and 0.18% was in the age bracket of 56-60. None of the respondents were in the age bracket of 61-65.

Sex. In terms of sex, results revealed that majority of the respondents were males with 54%, while female respondents were 46%.

Educational Attainment. Majority (52.1%) of the respondents were in the college level. The total number is composed of undergraduate students from all the different courses. On the other hand, 27.5% of the respondents were in the master's level; 9.9% of the respondents were master's graduate; 6.4% of the respondents were college graduate; 3.2% respondents were doctoral level, and 0.9% of the respondents, was earning units in doctoral program.

Table 2. *Socio-demographic profile of Private Higher Education Institutions Respondents in Region XII, 2016.*

VARIABLES	*FREQUENCY (n=564)*	*PERCENTAGE*	*AVERAGE*
Age (years)			28
Students			
16-20	207	36.70	
21-25	42	7.45	
26-30	45	7.98	
Teaching Employees			
21-25	3	0.53	
26-30	25	4.43	
31-35	77	13.65	
36-40	33	5.85	
41-45	45	7.98	
46-50	6	1.06	
51-55	14	2.48	
56-60	0	0	
61-65	0	0	
Non-Teaching Employees			
21-25	2	0.35	
26-30	18	3.19	
31-35	8	1.42	
36-40	13	2.30	
41-45	7	1.24	
46-50	9	1.60	
51-55	9	1.60	
56-60	1	0.18	
61-65	0	0	
Sex			
Male	304	53.90	
Female	260	46.10	
Educational Attainment			
College Level	294	52.1	
College Graduate	36	6.4	
Master's Level	155	27.5	
Master's Graduate	56	9.9	
Doctoral Level	18	3.2	
Doctoral Graduate	5	0.9	

Internet and Institution's Website Usage of the Private Higher Education Institutions Respondents in Region XII

Majority (76.1%) of the respondents used the internet everyday, 17.6% use the internet several times a week, 4.3% used the internet several times a month and 12.1% never used the internet. Moreover, 53.7% of the respondents used the internet for research, 44.1% used the internet for fun and 2.1% used the internet for email.

The result implies that majority of the Private Higher Education Institutions Respondents in Region XII are really using the internet on a daily basis. This means that internet has been such an important part of their lives. Moreover, majority of the respondents use the internet for research. It appears that internet is now such a main tool for learning through research.

Table 3. *Internet and Institution's website usage of Private Higher Education Institutions Respondents in Region XII, 2016.*

VARIABLES	*FREQUENCY (n=564)*	*PERCENTAGE*
Internet Usage		
Everyday	429	76.1
Several times a week	99	17.6
Several times a month	24	4.3
Once a month	12	2.1
Purpose of using Internet		
Email	12	2.1
Research	303	53.7
Fun	249	44.1

Status of Digital Technology Implementation of Private Higher Education Institutions in Region XII

The digital technology of NDDU has been implemented in all five areas which are service, usability, content, citizen participation and privacy/security. The digital technology of NDMU had been implemented in four areas which are service, usability, citizen participation and privacy/security. It failed to implement in the area of content. The digital technology of NDU had been implemented in three areas which are service, usability and privacy/security. It failed to implement in the areas of content and citizen participation.

The result implies that the Respondents of NDDU are able to utilize the benefits of digital technology because the school has implemented it in all the five areas. This has been made possible because NDDU has really made digital technology a priority, as evidenced by its state of the art equipment and facilities.

NDDU has really made significant development and improvement in terms of implementation. Moreover, according to Nelson (2003), e-government implementation leads to organizational change by moving from an existing status to a new desired situation. Therefore, change could be seen as a situation shifting from simple and normal status to externally and internally new conditions. In today's dynamic and shifting world of citizens' needs, organizations need to respond as quickly as possible to these changes and citizens' demands. In this respect, an organization's response to these changes will often depend on socio-cultural, political, economic, demographic and technological developments and trends in different markets or national contexts (Centeno et al., 2005).

Table 4. *Overall status of implementation of digital technology of Private Higher Education Institutions respondents in Region XII, 2016.*

PRIVATE HEIs	*SERVICE*	*USABILITY*	*CONTENT*	*CITIZEN PART.*	*PRIVACY/ SECURITY*
NDDU	1	1	1	1	1
NDMU	1	1	0	1	1
NDU	1	1	0	0	1

Perceived Digital Technology Adoption Factors of Private Higher Education Institutions Respondents in Region XII

Table 5 outlines perceived digital technology adoption factors such as performance expectancy, effort expectancy, social influence, and facilitating conditions of the respondents in Region XII.

Performance Expectancy. Respondents agreed on the statements "Institution's website helps me to contact the administration to raise my concern easily" (2.97); "Digital technology would enable me to access college/university information and services when I need them - 24 hours/day, 7 days/week" (3.31); "Digital technology helps me to accomplish task quickly" (3.25); "Digital technology system via the Internet is useful due to efficient availability of institutions information and services in the website" and "Using the will enable me to accomplish tasks more quickly" (3.20); and "Overall, the institutions website system is useful to me and to other citizens" (3.20). All had a qualitative description of *Agree.* The mean for Performance Expectancy was 3.20 which had a qualitative description of agree.

Performance expectancy refers to the degree which individuals believe that using a system will help them improve their job performance and contain five variables: performance expectancy, extrinsic motivation, job-fit, relative advantage and outcome expectations. The result implies that the respondents agree that using a system will help them improve their job performance. It can also be implied that the performance expectancy is a good digital technology adoption factor.

Effort Expectancy. Respondents agreed on the statements "Learning to operate the institution's website is easy for me"(3.16), "Using the institution's website is easy to use" (3.16); "It is easy for me to become skillful in using the institution's website"

(3.06); "Overall, I believe that the online government system is easy to use" (3.04); "I would find the institutions website easy to use if I get suitable training" (3.10); "Institution's website is useful to me" (3.13). All had a qualitative description of *Agree.* The mean for Effort Expectancy was 3.11 which had a qualitative description of agree.

Effort expectancy refers to the degree of ease associated with the use of the system; effort expectancy is made up of: perceived ease of use, complexity and actual ease of use. The result implies that the respondents agree that effort expectancy which refers to the degree of ease associated with the use of the system is a good digital adoption factor.

Social Influence. Statements on "My friends and colleagues think that I should use the institution's website"(2.96), "My family members and relatives think that I should use the e-government system" (2.93); "People around me who use the institution's website have more prestige" (2.87); "I find it easier to use the services in the institution's website due to information and awareness campaigns" (3.06); and "Overall, I am satisfied with the awareness campaign's (tarpaulin, radio, posters) level obtained from the institution's officials" (3.10). All have a qualitative description of *Agree.* The mean for Social Influence was 2.99 which had a qualitative description of agree.

Social influence refers to the degree to which peers influence use of the system, be it positive or negative. The result implies that the respondents agree that social influence is a good digital adoption factor.

Facilitating Conditions. Respondents agreed on the statements "I have the resources necessary to use and check the institution's website"(3.09), "Given the resources, opportunities and knowledge, it takes to use the institution's website, it would be easy for me to use the system " (3.14); "I have enough internet experience to use the institution's website" (3.21); "I am satisfied with the security and privacy measures provided with the institution's website " (3.12); and "I feel assured that the implementation level encourages me to adopt the services of the website" (3.12). All have a qualitative description of *Agree.* The mean for Facilitating Conditions was 3.13 which had a qualitative description of agree.

Facilitating Conditions refers to the degree to which an individual believes that an organizational and technical infrastructure exist to support the system. Facilitating Conditions are comprised of three root constructs: perceived behavioral control, facilitating conditions and compatibility. The result implies that respondents agree that facilitating condition is a good digital technology adoption factor.

All of the perceived digital technology adoption factors obtained an overall mean of 3.11 which had a qualitative description of agree. The result implies that performance expectancy, effort expectancy, social influence and facilitating conditions are a good digital technology adoption factor.

Table 5. *Perceived digital technology adoption factors of all the respondents in Private Higher Education Institutions on Region XII, 2016.*

FACTORS	*MEAN*
Performance Expectancy Statements	3.20
Digital technology would enable me to access college/university information and services when I need them - 24 hours/day, 7 days/week.	3.31
Digital technology system via the Internet is useful due to efficient availability of institutions information and services in the website.	3.32
Using the will enable me to accomplish tasks more quickly.	3.20
Institution's website helps me to contact the administration to raise my concern easily.	2.97
Digital technology helps me to accomplish task quickly.	3.25
Overall, the institutions website system is useful to me and to other citizens.	3.20
Effort Expectancy Statements	3.11
Learning to operate the institution's website is easy for me.	3.16
I would find the institutions website easy to use if I get suitable training.	3.10
It is easy for me to become skillful in using the institution's website.	3.06
Institution's website is useful to me.	3.13
Using the institution's website is easy to use.	3.16
Overall, I believe that the online government system is easy to use.	3.04
Social Influence Statements	2.99
My friends and colleagues think that I should use the institutions website.	2.96
My family members and relatives think that I should use the e-government system.	2.93
People around me who use the institutions website have more prestige.	2.87
I find it easier to use the services in the institution's website due to information and awareness campaigns.	3.06
Overall, I am satisfied with the awareness campaign's (tarpaulin, radio, posters) level obtained from the institution's officials.	3.10
Facilitating Conditions Statements	3.13
I have the resources necessary to use and check the institutions website.	3.09
Given the resources, opportunities and knowledge it takes to use the Institution's website, it would be easy for me to use the system.	3.14
I have enough Internet experience to use the institution's website.	3.21
I am satisfied with the security and privacy measures provided with the institution's website.	3.12
I feel assured that the implementation level encourages me to adopt the services of the website.	3.12
OVERALL MEAN	3.11

Behavioral intention in the Adoption of Digital Technology of Private Higher Education Institutions' Respondents in Region XII

Behavioral Intention. Statements "I predict using the digital technology in the future."(3.12), "I plan to use institution's website in the future." (3.15); "I intend adopting digital technology system in the future." (3.24) and "I predict that the institution's website will offer more services in the future." (3.25). All had a qualitative description of *Agree.*

Behavior Intention refers to respondents (teaching, nonteaching, and students) intention to adopt and make

use of a certain tool in the future (Ajzen, 1988; 1991; Taylor and Todd, 1995; Venkatesh and Brown, 2001; Venkatesh et al., 2003). Intention is an immediate predictor of behavior (towards an innovation).

The overall mean was 3.19 which had a qualitative description of agree. The result implies that respondents predict to use the digital technology in the future. Moreover, the result implies that the respondents plan to use the institution's website in the future. The result also implies that the respondents intend to adopt digital technology system in the future. Then, the respondents predict that the institution's website will offer them more services in the future.

Based from the result, it is apparent that behavioral intention is a good indicator of digital technology adoption. According to Irani *et al.* (2009), the majority of technology adoption researches have utilized behavior intention to predict technology adoption. Also, Ajzen (1991) suggests that behavioral intention is counted to have a direct influence on adoption. The measurement of behavioral intention includes the intention, and predicted use of e-government services.

Table 6. *Behavioral intention in the digital technology adoption of all the respondents of Private Higher Education Institutions' Respondents in Region XII, 2016.*

FACTORS	*MEAN*	*QUALITATIVE DESCRIPTION*
Behavioral Intention Statements		
I predict using the digital technology in the future.	3.12	Agree
I plan to use institution's website in the future.	3.15	Agree
I intend adopting digital technology system in the future.	3.24	Agree
I predict that the institution's website will offer more services in the future.	3.25	Agree
OVERALL MEAN	3.19	Agree

Level of Digital Technology Adoption of Private Higher Education Institutions' Respondents in Region XII

Tale 7 shows that 93.60% of the respondents used the institution's website while only 6.4% of the respondents never used the institution's website. The level of adoption was very high.

Moreover, 36.36% of the respondents used the institution's website once a month; 35.23% of them used the institution's website several times a month; 22.73% of them used the institution's website several times a week; and 5.68% of them never used the institution's website.

The result implies that majority of the Private Higher Education Institutions respondents in Region XII are really using or adopting the Institution's website. This means that using the Institution's website has been such an important part of their work. Moreover, most of the respondents use the Institution's website several times a month. It appears that using it is now such a necessity for getting the job done.

This implication is supported by the fact that Technology's promise is not simply to automate processes, but to open routes to new ways of doing business. This report (as well as the survey) focuses on digital transformation, which we define as the use of new digital technologies (social media, mobile, analytics or embedded devices) to enable major business improvements (such as enhancing customer experience, streamlining operations or creating new business models)(Fitzgerald, 2013)

Table 7. *Adoption of digital technology of Private Higher Education Institutions Respondents in Region XII, 2016.*

VARIABLES	*FREQUENCY (n=564)*	*PERCENTAGE*
Using website of the institution		
Yes	528	93.6
No	36	6.4
Frequency of website usage		
Everyday	30	5.68
Several times a week	120	22.73
Several times a month	186	35.23
Once a month	192	36.36

Relationship of Socio-demographic Profile of the Respondents and Perceived Digital TechnologyAdoption Factors

Table 8 shows the relationship between socio-demographic profile of all the respondents and perceived digital technology adoption factors of private Higher Education Institutions in Region XII.

The gender of the respondents has no significant

relationship to performance expectancy. (r=-.050; p=.232); effort expectancy (r=-.057; p=.174); social influence (r=-.037; p=.377) and facilitating conditions (r=-.059; p=.159).

The age of the respondents has no significant relationship to performance expectancy (r=.056; p=.186); effort expectancy (r=.062; p=.144); social influence (r=-.002; p=.956) and facilitating conditions (r=-.037; p=.377).

The educational attainment of the respondents has no significant relationship to performance expectancy (r=.070; p=.096); effort expectancy (r=.066; p=.120); social influence (r=-.058; p=.172) and facilitating conditions (r=-.013; p=.752).

The null hypothesis number 1 states that there is no significant relationship between socio-economic profile and perceived digital technology adoption factors of Private Higher Education Institutions respondents in Region XII. Based from the result, the socio-demographic profile of the respondents has no significant relationship to the perceived digital technology adoption factors. Therefore, the null hypothesis number 1 is accepted.

Table 8. *The relationship between socio-demographic profile of the Respondents and perceived digital technology adoption factors of Private Higher Education Institutions in Region XII, 2016.*

		Performance Expectancy	*Effort Expectancy*	*Social Influence*	*Facilitating Conditions*
SEX	Pearson Correlation	-.050	-.057	.037	.059
	Sig. (2 tailed)	.232 ns	.174 ns	.377 ns	.159 ns
Age	Pearson Correlation	.056	0.062	0.002	0.037
	Sig. (2 tailed)	.186 ns	.144 ns	.956 ns	.377 ns
EDUCATIONAL ATTAINMENT	Pearson Correlation	.070	.066	.058	.013
	Sig. (2 tailed)	.096 ns	.120 ns	.172 ns	.752 ns

Influence of perceived digital technology adoption factors to behavioral intention of respondents

A regression analysis was performed with behavioral intention to adopt digital technology as the dependent variable and performance expectancy, effort expectancy, social influence and facilitating condition as the predictor variables.

From the analysis, three variables, namely: Performance Expectancy (.222, p=0.000), Social Influence (0.280, p=0.000) and Facilitating Condition (0.189; p=0.000) showed significant influence on behavioral intention to adopt digital technology.

The result shows that R^2 is 0.374. It means that the model can predict 37.4% of the influence of the perceived digital technology adoption factors to behavior intention of the respondents. The unidentified factors account for the remaining 62.6%. As a whole, with F value of 83.450 which is significant shows that the model developed is a good model in predicting behavioral intention to adopt digital technology.

The null hypothesis number 2 states that the perceived digital technology adoption factors do not significantly influence the behavioral intention of Private Higher Education Institutions Respondents in Region XII. Based from the results, the perceived digital technology adoption factors do significantly influence the behavioral intention of the Respondents. Therefore, the null hypothesis number 2 is rejected.

Performance expectancy has a significant influence to behavior intention. It implies that performance expectancy is a good predictor of behavior intention to adopt digital technology. Social influence has a significant influence to behavior intention. It implies that social influence is a good predictor of behavior intention to adopt digital technology. Facilitating condition has a significant influence to behavior intention. It implies that facilitating condition is a good predictor of behavior intention to adopt digital technology. Effort expectancy has no significant influence to behavior intention. It implies that effort expectancy is not a good predictor of behavior intention to adopt digital technology.

The result implies that performance expectancy, social influence and facilitating condition are good predictors of behavior intention to adopt digital technology. This implication is supported by many studies. Performance expectancy was found to be a strong predictor of intention to use IT according to previous acceptance studies (Venkatesh *et al.*, 2003; Venkatesh and Davis, 2000). Researchers in the field of technology studies Chang et al., (2007) found that Facilitating Condition is a significant predictor of the technology use. The findings of Pavlou and Fygenson (2006) suggest that social influences are an important determinant of behavior. Venkatesh *et al.*, (2003

Table 9. *Influence of perceived digital technology adoption factors to behavior intention of Private Higher Education Institutions Respondents in Region XII, 2016.*

PERCEIVED DIGITAL TECHNOLOGY ADOPTION FACTORS	*BEHAVIORAL INTENTION*				
	Unstandardized Coefficients		*Standardized Coefficients*	*t*	*Sig.*
	B	Std. Error	Beta		
(Constant)	.674	.140		4.814	.000
Performance Expectancy	.246	.051	.222	4.816***	.000
Effort Expectancy	.038	.052	.036	.743 ns	.458
Social Influence	.322	.051	.280	6.260***	.000
Facilitating Condition	.207	.055	.189	3.790***	.000

Relationship between Behavioral Intention of Respondents and Digital Technology Adoption

Table 10 shows the relationship between behavioral intention of respondents and digital technology adoption of private Higher Education Institutions in Region XII. Overall, the behavioral intention of respondents has no significant relationship to digital technology adoption (r=-.082; p=.051).

The Q1 or the statement "I predict using the digital technology in the future." has a significant inverse relationship to digital technology adoption (r=--.114; p=.007). The Q2 or the statement "I plan to use institution's website in the future." has a significant inverse relationship to digital technology adoption (r=--.152; p=.000). The Q3 or the statement "I intend adopting digital technology system in the future." has no significant relationship to digital technology adoption (r=-.018; p=.667). The Q4 or the statement "I predict that the institution's website will offer more services in the future." has no significant relationship to digital technology adoption (r=.042; p=.361).

The null hypothesis number 3 states that there is no significant relationship between behavior intention and digital technology adoption of Private Higher Education Institutions Respondents in Region XII. The results showed that there is no significant relationship between behavior intention and digital technology adoption of Private Higher Education Institutions Respondents in Region XII. Therefore, the null hypothesis number 3 is accepted.

It can be implied that as number of Respondents who predict using the digital technology in the future increases, the digital technology adoption decreases. Moreover, as number of Respondents who plan to use Institution's website in the future increases, the digital technology adoption decreases.

Table 10. *The relationship between behavioral intention and digital technology adoption of Private Higher Education Institutions in Region XII, 2016.*

		Q1	*Q2*	*Q3*	*Q4*	*Behavioral Intention*
DIGITAL TECHNOLOGY ADOPTION	Pearson Correlation		-.114	-.152	.042	-.082
	Sig. (2 tailed)		.007***	-.018 .000***	.316 ns	.051 ns
				.667 ns		

Relationship of Digital Technology Implementation and Digital Technology Adoption of Private Higher Education Institutions in Region XII, 2016

Table 11 shows the relationship between digital technology implementation and digital technology adoption of private Higher Education Institutions in Region XII.

The null hypothesis number 4 states that there is no significant relationship between digital technology implementation and digital technology adoption of Private HEIs Respondents in Region XII. The result shows that there is no significant relationship between digital technology implementation and digital technology adoption of Private Higher Education Institutions Respondents in Region XII. Therefore, the null hypothesis number 4 is accepted.

Table 11. The relationship of digital technology implementation and digital technology adoption of Private Higher Education Institutions Respondents in Region XII, 2016.

	Digital Technology Adoption	
	Pearson Correlation	*Sig (2 tailed)*
Content Citizen Participation	.019 .000	.653ns 1.000 ns
Digital Technology Implementation	.011	.798 ns

Conclusion

Considering the results of this study, the following conclusions are drawn:

1. There is no significant relationship between socio-demographic profile of the respondents and perceived digital technology adoption factors of Higher Education Institutions in Region XII;
2. The perceived digital technology adoption factors have a significant influence on the behavioral intention of Private Higher Education Institutions' Respondents in Region XII;
3. There is no significant relationship between behavioral intention of Respondents and digital technology adoption of Private Higher Education Institutions in Region XII; and
4. There is no significant relationship between digital technology implementation and digital technology adoption of Private Higher Education Institutions in Region XII.

Based on the findings and conclusions of this study, the following are recommended:

1. It is recommended that the study should include an assessment of the Institution's performance of Private Higher Education Institutions in Region XII.
2. It is recommended that the perceived digital technology adoption factors which are performance expectancy, social influence and facilitating condition, will be used for predicting the behavioral intention of the Respondents towards digital governance adoption.
3. It is recommended that the Private Higher Education Institutions should formulate a policy to encourage not only the Respondents but also other potential users to adopt the digital technology through the institution's website and to expand on content and citizen participation as well.

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