

# Validating Technology for Sustainable Information Access

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## Abstract

**Objective:** The study aimed to develop a website for the College of Computer Studies of Eastern Samar State University that follows the standard or essentials in the creation of website technology. **Methods:** Coombs System Approach was used to show the input process and output in the study. Slovin's formula with five percent (5%) marginal error was used to identify the total number of samples. A simple random sampling was adopted, which means every student had an equal chance of being selected to participate in answering the questionnaire. A total of 263 respondents from the 673 population of the College comprises of Students, faculty members and 2 Board of Regent members/representatives of the University. Responses to the items in the questionnaire were measured using the 5-point Likert-scale. **Findings:** In the category under website essentials, Site help and support got the lowest score which is equivalent to 4.30 interpreted as strongly agree and site visitor control, site consistency and site visual design got the highest evaluation result equivalent to 4.57 interpreted as strongly agree. Under user perceived web quality, it resulted to 4.53 interpreted as strongly agree. In terms of website acceptability a score of 4.57 which is interpreted as strongly agree which further means that the website is in agreement with the standard set by the International Organization of Standardization (ISO). In terms of issues and concerns in the development of a website, 100 percent of the respondents listed requirements are not clearly defined as an issue and only 30 percent of the respondents considered cost as an issue or concern. **Application:** Based on the result it is recommended to follow the essentials in web development and be guided with the standard set by ISO.

**Keywords:** Information Access, Technology Acceptance, University Website, Validating technology, Website essentials

## 1. Introduction

The advent of technology has opened the doors for people in the world of dependency to technological products and innovations. Computers and Internet are some of the greatest product of technology today. Many people use computers and the Internet as a way of communicating with the cyber world. Website is a related collection of information stored on a computer system and seen on the World Wide Web (www) that includes a beginning file called a home page. There are many reasons why a website is significant these days. A website will broaden your base of customers. You can post job opportunities with your company on your website. On a website, you have the ability to make the necessary changes at no additional costs. You make yourself available to people in other time zones and even across the globe rather than the limited market audience you can reach in your local geographi-

cal area.<sup>1</sup> Nowadays website is an essential part of every profession. It makes strong impact on the image of any institution.

This is an online identity of any institution involve in promoting online and Internet marketing as well. Websites were created to cater various needs of many. Building a website is one way of adapting technology through World Wide Web and it can be exposed around the world in order to advertise or promote the organization to other people. In our modern age the internet also has become more useful. It share us a lot of information and knowledge, through accessing internet, we can easily spread information and make things much better and easier.<sup>2</sup>

The Eastern Samar State University (ESSU) is an institution for higher education. The ESSU main campus is located at Barangay Maypangdan, Borongan City. It has nine colleges namely; College of Computer Studies (CCS), College of Engineering (COE), College

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of Education (COED), College of Business Management and Accountancy (CBMA), College of Agriculture and Natural Sciences (CANS), College of Nursing (CON), College of Law (COL), College of Arts and Sciences (CAS), School of Vocational Technology (SVT).

CCS is one of the newest colleges in the university. It offers two curricular computer programs leading to Bachelor of Science in Information Technology (BSIT) and Bachelor of Science in Computer Science (BSCS). Since CCS is the forerunner of innovative ideas primarily the Information Technology infrastructure of the university, it is imperative that it should lead the way in exploring possibility in cyberspace technology. One measure is to tap its own website in order to connect CCS to the rest of the world. The proponent developed a website for the College of Computer Studies in order to give a strong impact on the image of the college by providing an effective medium to connect to other schools, and to the students especially for the incoming freshmen. It will enable the students to know all the information they need including services offered in the college and serves as an avenue to contact the entire CCS faculty and its alumni as well.

## 2. Statement of the Problem

This study aimed to develop a website for Eastern Samar State University - College of Computer Studies during academic year 2015-2016.

Specifically, the study sought to answer the following questions:

1. As perceived by the respondents groups to what extent is the accessibility of information through various media about :
  - College;
  - Students; and
  - Instructor?
2. As perceived by respondents group, what is the acceptability of the essentials in the development of a website as to:
  - Site navigation and orientation;
  - Site functionality;
  - Site help and support;
  - Site errors;
  - Site visitor control;
  - Site consistency;

- Site visual design;
- Site conversion; and
- User-perceived web quality?

3. As perceived by respondents groups, what is the extent of acceptability of the website as to:
  - Usability;
  - Efficiency;
  - Reliability; and
  - Accuracy?
4. What are the issues and concerns in the development of the website?
5. Based on findings what website for College of Computer Studies of Eastern Samar State University can be developed?

## 3. Significance of the Study

In this era of technology, website is an essential part of every profession. The passion of World Wide Web keeps on growing and growing these days. Websites makes strong impact on the image of an institution. The task associated within the website is to represent information and ultimately help to promote the institution to be highly competitive and advanced. The study will have a strong impact to the following sectors:

### 3.1 Easter Samar State University (ESSU)

For the school, it is a great step in adapting technologies in having College Website that will yield desirable complements coming from people viewing the site. It will help also to promote the school to interested potential students. Furthermore, developing a website will maintain the school valued image on the web and further draw more clients and enrollees for the school.

### 3.2 College of Computer Studies (CCS)

The website will provide awareness to the users about the information of the College/Department and help to promote the institution to become highly competitive to other places.

### 3.3 CCS Faculty

The website will be beneficial to the faculty. Through the website, they can post their announcements in the forum

and give a feedback as well to the queries of students and the community.

### 3.4 CCS Students

The students will benefit greatly if the website will be published. They can post & share their queries in the forum related on their study and they will be guided to the schedules in the college by simply visiting the site on the internet.

### 3.5 The Community

Ultimately the community will benefit on this study as they don't need to go to the college because information needed by them is posted in the website.

### 3.6 Future Researcher

This study will serve as a guide to future researcher who desire to focus or conduct the same study. This will also serve as a tool that will provide necessary information needed by the researchers.

## 4. Research Methodology

### 4.1 Research Design

The study utilized the descriptive method. This type of research survey was used in determining acceptability of Eastern Samar State University – College of Computer Studies website. Frequency, percentage and mean were used to get the demographic characteristics of the respondents, extent of accessibility of information about the college, students and instructors through various media, the user-perceived web quality, the extent of acceptability of the website in terms of usability, efficiency, reliability, and accuracy, website essentials and the issues and concerns in website development. The primary objective of this study was to implement a website for ESSU-CCS and evaluate the system performance in terms of usability, reliability, efficiency and accuracy. The research variable was tested to find out the performance of the system.

### 4.2 Flow of the Study

Figure 1 illustrates the Coombs System Approach with three elements namely input, process, and output. The study distinguished inputs such as website essentials,

expert inputs and user feedback. The second frame shows the Analysis and Statistical Treatment of the Extent of accessibility of information and the extent of acceptability of the website and the output is the development of ESSU-CCS website.

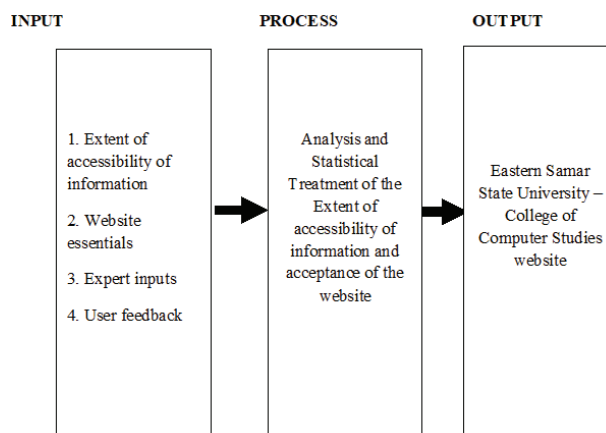


Figure 1. Coombs system approach.



Figure 2. Location of Eastern Samar State University.

### 4.3 The Research Environment

The study was conducted at the Eastern Samar State University- Main Campus particularly at the College of Computer Studies during the School Year 2015-2016, located approximately 7 kilometers from the Borongan City proper. The College is headed by its Dean with two (2) curricular programs namely

Bachelor of Science in Computer Science (BSCS) and Bachelor of Science in Information Technology (BSIT). The college is divided into two departments namely; Department of Information Technology (DIT) and Department of Computer Science (DCS). The College houses six hundred forty seven (647) students and fourteen (14) faculty members. The college was once part of another college but became another one only on March 2014.

#### 4.4 Respondents of the Study

The College of Computer Studies students and faculty, together with the Board of Regents representatives of the University were the respondents of the study. Out of 647 of the College, 248 or 38.33% were selected as respondents of the study. The Slovin's formula, with five percent (5%) marginal error, was used to identify the total number of samples.

A simple random sampling was adopted, which means every student had an equal chance of being selected to participate in answering the questionnaire. As regards to the faculty members, 13 faculty members were selected to participate in evaluating the system. Out of the 13 Board of Regents representatives, only two (2) or 15.38% of them participated in answering the questionnaire because of their busy schedule. Only the President of the Federated Faculty Association and Federated Supreme Student Council participated.

#### 4.5 Data Gathering Instrument

Two sets of survey instrument were utilized. A questionnaire intended for students and BOR representatives and a separate questionnaire for the faculty members which serves as an expert. The instrument used by students and BOR representatives was subdivided into three parts. Part I was used to determine the extent of accessibility of information about the college, students and instructor through various media like brochure, radio and the like. Questions under Part I was adapted from AACUP manual. Part II is about User Perceived Web Quality, questions included were adapted from the study of entitled "Developing and validating an instrument for measuring user perceived web quality". Part III is the extent of acceptability of the website which was adapted from ISO 9126 which is the standard for software evaluation.

The instrument used by the experts was divided into two parts. Part I were questions about the website essentials and expert inputs. Part II had questions about the issues and concerns encountered in the development of a website. The researcher asked five (5) of his peers from various disciplines, to review the face validity of the questionnaire. The instrument was modified based on the feedback of the reviewer. The final instrument used by the Students and BOR representatives had three parts. Part 1 was about the extent of accessibility of information through various media and was subdivided into three sub-parts.

There were five (5) questions regarding information accessibility about the College, seven (7) questions about student and four (4) questions about instructors. Part II was about User Perceived Web Quality which had 22 questions and Part III was about the extent of acceptability of the website and is subdivided into different questions about Usability, Efficiency, Reliability, and Accuracy. The instrument used for experts was subdivided into two parts: Part I was about Website Essentials and Expert inputs which had questions about site navigation and orientation, site functionality, site help and support, site errors, site visitor control, site consistency, site visual design, and site conversion; Part II was about the issues and concerns encountered in the development of website.

#### 4.6 Data Gathering Procedure

A letter was addressed to the University President asking permission to conduct the study in the University specifically in the College of Computer Studies. Upon approval, distribution of the questionnaires followed. Orientation was conducted about the importance of the survey and encouraged each respondent to answer the questionnaires properly and thoroughly. The content of the website was introduced also, in order for the respondents to answer some parts of the survey which talked about the acceptability of the website. The survey questionnaire was distributed personally and answered by students, instructors and BOR representatives. All distributed questionnaires were retrieved from the respondents.

#### 4.7 Data Processing Technique

To analyze the data obtained, the data were validated, coded and encoded in the MS Excel for statistical

analysis using SPSS and MS Excel. Frequency, percentage and mean were the statistical tools used in this study. To determine the mean rating of each sub section in the questionnaire, arithmetic mean was used. Arithmetic mean was used to get the user perceived web quality and the extent of acceptability of the website in the questionnaires used for students and BOR representatives. Arithmetic mean also was used to get the results of site navigation and orientation, site functionality, site help and support, site errors, site visitor control, site consistency, site visual design and site conversion in the questionnaires used by the Expert.

Frequency was used to facilitate the tallying and counting of frequencies falling under each category. In this study, frequency was used to measure the respondents answer to a specific set of questions from the Students, BOR and Expert questionnaire. Percentage also was used in this study. Percentage is the ratio of responses to the total, to find the trends in opinion. The results of the statistical analysis were then utilized as the basis for the interpretation, drawing of conclusions, and recommendations.

#### 4.8 Data Treatment

Responses to the items in the questionnaire were measured using the 5-point Likert-scale of Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree. It shows the scoring procedure to identify the extent of accessibility of information through various media, user-perceived web quality, extent of acceptability of the website, and website essentials.

## 5. Results and Discussion

### 5.1 Extent of Accessibility of Information through Various Media

This section shows the extent of accessibility of information about the college, students and instructors through various media.

### 5.2 College

Table 1 shows the extent of accessibility of information about the college through various media. As depicted in the table, it is safe to conclude that the information about the college were accessible through various media except ESSU website. A total of 247 or 98.8% of the respondents agreed that the information particularly about goals and objectives was accessible. The highest number of respondents agreed to this. As to what particular medium they used to access information, 163 or 65.2% said that it was from school publication, 154 or 61.6% read it from flyers, brochures or pamphlets and 105 or 42% heard it over the school radio programs or from TV advertisements. ESSU website got the lowest score in terms of accessibility of information about the college which implies that the current university website is not catered for disseminating of information of the College of Computer Studies.

**Table 1.** Distribution of respondents

| Respondents Type    | Population | Sample | Percentage |
|---------------------|------------|--------|------------|
| CCS Students        | 647        | 248    | 38.33      |
| CCS Faculty Members | 13         | 13     | 100        |
| BOR Representative  | 13         | 2      | 15.38      |

**Table 2.** Extent of accessibility of information about the college through various media

| Parameter                                | Yes             | No             | Flyers/ Brochures/<br>Pamphlets | School Publication | Radio/TV        | ESSU Website   |
|------------------------------------------|-----------------|----------------|---------------------------------|--------------------|-----------------|----------------|
| CCS Goals and Objectives                 | 247<br>(99.59%) | 3<br>(1.20%)   | 154<br>(62.09%)                 | 163<br>(65.72%)    | 105<br>(42.33%) | 17<br>(6.85)   |
| CCS history                              | 235<br>(94.75%) | 14<br>(5.64%)  | 130<br>(52.41%)                 | 157<br>(63.30%)    | 64<br>(25.80%)  | 0<br>(0%)      |
| Curricular program offered by CCS        | 227<br>(91.53%) | 23<br>(9.27%)  | 144<br>(58.06%)                 | 86<br>(34.67)      | 111<br>(44.75)  | 40<br>(16.12%) |
| Events and schedule of activities of CCS | 227<br>(91.53%) | 23<br>(9.27%)  | 117<br>(47.17%)                 | 112<br>(45.16%)    | 108<br>(43.54%) | 0<br>(0%)      |
| Research and Extension activities of CCS | 218<br>(87.90%) | 32<br>(12.90%) | 107<br>(43.14%)                 | 113<br>(45.56%)    | 111<br>(44.75%) | 0<br>(0%)      |

Accessibility of information about the research and extension activities of the college got the lowest number of agreement from the respondents. This is equivalent to 218 or 87.2%. Only 113 or 45.2% of the respondents said they retrieved information from the school publication, 111 or 44.4% heard it over the local radio programs or TV advertisement and 107 or 42.8% read it from flyers, brochures or pamphlets from the University/College.

It is very obvious that the University website got the lowest in terms of accessibility of information about the college. In fact, no one selected this medium in as a tool for accessing information about the research and extension undertakings of the college, events and schedule of activities and information about the history of the college. Only 40 or 16% of the respondents answered that they can access information about the curricular offerings of the college and 16 or 6.8% agreed that they can access the VMGO of the college through the University website which implies that the university website was not devel-

oped for disseminating of information of the College of Computer Studies.

### 5.3 Student

Table 3 presents the extent of accessibility of information about students through various media. From this area, information about scholarship programs offered by the University was the most accessible. A total of 242 or 96.8% of the respondents agreed on its accessibility. The School Publication was the most commonly used medium or source used by the respondents with a total number of 141 or 56.4%. With regards to flyers, brochures or pamphlets, it landed on the second most commonly used source to obtain the information about scholarship programs. 129 or 51.6% of respondents used this as source in retrieving the said information. Radio and TV on the other hand, got 88 or 35.2% of the respondents to agree that through this medium information were accessed.

**Table 3.** Extent of accessibility of information about the student through various media

| Parameter                                                      | Yes             | No             | Flyers/ Brochures/<br>Pamphlets | School<br>Publication | Radio/TV        | ESSU<br>Website |
|----------------------------------------------------------------|-----------------|----------------|---------------------------------|-----------------------|-----------------|-----------------|
| Student Services Unit of CCS                                   | 222<br>(89.51%) | 28<br>(11.29%) | 149<br>(60.08%)                 | 89<br>(35.88%)        | 105<br>(42.33%) | 0<br>(0%)       |
| Policies and procedures on selection and admission of students | 227<br>(91.53%) | 23<br>(9.27%)  | 130<br>(52.41%)                 | 128<br>(51.61)        | 71<br>(28.62)   | 30<br>(12.09%)  |
| Policies and procedures on retention of students               | 235<br>(94.75)  | 15<br>(6.04%)  | 132<br>(53.22%)                 | 141<br>(56.85%)       | 84<br>(33.87%)  | 0<br>(0%)       |
| Guidance Program and/or Counseling for the students            | 240<br>(96.77%) | 10<br>(4.03%)  | 121<br>(48.79%)                 | 125<br>(50.40%)       | 92<br>(37.09%)  | 34<br>(13.70%)  |
| Health Programs and Services for the students                  | 236<br>(95.16)  | 14<br>(5.64%)  | 117<br>(47.17%)                 | 136<br>(54.83%)       | 93<br>(37.5%)   | 0<br>(0%)       |
| Sports Development Program for the students                    | 234<br>(94.35%) | 16<br>(6.45%)  | 116<br>(46.77%)                 | 132<br>(53.22%)       | 83<br>(33.46%)  | 0<br>(0%)       |
| Scholarship Programs for the students                          | 242<br>(97.58)  | 8<br>(3.22%)   | 129<br>(52.01)                  | 141<br>(56.85%)       | 88<br>(35.48%)  | 19<br>(7.66%)   |

Student services information of the college are the less accessible in the Student sub-part. A total of 222 or 88.8% said that information was accessible. As to what source, flyers, brochures or pamphlets ranked number 1 as the most commonly used with 149 or 59.6% respondents in agreement. A total of 105 or 42% respondents said that they heard it over the radio or from TV advertisement and 89 or 35.6% of the respondents said that they got the information from the school publication. It is noticeable that the University website fails to disseminate information about the student services area of CCS. As depicted

in Table 4, there were a few respondents who said that information is available in the website. As a matter of fact, no respondents said that the information about student services unit, policies and procedures on student retention, health programs and services and sports development program are available in the University website. Only 30 or 12% of the respondents said that they access the information about policies and procedures on selection and admission in the college are available in the said website. There were 34 or 13.6% of the respondents in agreement that the guidance program and counsel-

ing were available in the website. Scholarship programs offered by the University were accessible according to 19 or 7.6% of the respondents. This further means that the

current website of the University is not intended to disseminate detailed information about student welfare and activities.

**Table 4.** Extent of accessibility of information about the instructors' through various media

| Parameter                                                       | Yes             | No            | Flyers/ Brochures/ Pamphlets | School Publication | Radio/TV       | ESSU Website  |
|-----------------------------------------------------------------|-----------------|---------------|------------------------------|--------------------|----------------|---------------|
| Academic qualifications of the faculty members                  | 239<br>(96.37%) | 11<br>(4.43)  | 144<br>(58.06%)              | 138<br>(55.64%)    | 50<br>(20.16%) | 14<br>(5.64%) |
| Subject handled by the faculty members                          | 231<br>(93.14%) | 19<br>(7.66%) | 108<br>(43.54%)              | 157<br>(63.30%)    | 66<br>(26.61%) | 0<br>(0%)     |
| Basic profile (i.e. Name, Academic rank) of the faculty members | 238<br>(95.96%) | 11<br>(4.43)  | 109<br>(43.95%)              | 117<br>(47.17%)    | 80<br>(32.25%) | 0<br>(0%)     |
| Specialization of the faculty members                           | 244<br>(98.38%) | 6<br>(2.41%)  | 128<br>(51.61)               | 148<br>(59.67)     | 73<br>(29.43)  | 0<br>(0%)     |

## 5.4 Instructor

Table 4 shows the extent of accessibility of information in the instructor sub- area through various media. The most accessible information of this area was the information about specialization of the faculty members of CCS. A total of 244 or 97.6% of respondents accessed the said information, as to what source, the school publication was the most commonly used source according to 148 or 59.2% of the respondents. There were 128 or 51.2% respondents who said that they accessed this information through flyers, brochures or pamphlets and 73 or 29.2% respondents used radio to access the said information.

Less accessible information in this area was the subjects handled by the faculty members. A total of 231 or 92.4% respondents believed that this information was accessible through various media. There were 157 or 62.8% respondents who said that they accessed the information through the school publication. A total of 108 or 43.2% said that they got the said information through flyers, brochures or pamphlets. Radio programs or TV advertisement were used by 66 or 26.4% of the respondents. Respondents believe that the University website was not helpful towards accessing information about CCS instructors. Table 5 shows that there were no respondents who said that the information about subject handled by the instructors, basic profile of the instructors and specialization were accessible through this medium. Only 14 or 5.6% of the respondents said that information about academic qualifications of CCS instructors was available or accessible in the University website.

**Table 5.** Site navigation and orientation

| Parameter                                                          | Mean | Verbal Description |
|--------------------------------------------------------------------|------|--------------------|
| Obvious what site is about within 3 seconds of landing on any page | 4.15 | A                  |
| Current location on site is apparent                               | 4.08 | A                  |
| Home page link always available                                    | 4.46 | SA                 |
| Content makes it clear where links will take the visitor           | 4.54 | SA                 |
| Search if available is accessible from any site page               | 4.69 | SA                 |
| Important key pages are accessible from most locations on site     | 4.92 | SA                 |
| Average weighted mean                                              | 4.47 |                    |
| Interpretation                                                     | SA   |                    |

Legend: 4.20 – 5.0 SA = Strongly Agree; 3.40 – 4.19 A = Agree; 2.60 – 3.39 N = Neutral; 1.80 – 2.59 D = Disagree; 1.0 – 1.79 SD = Strongly Disagree

It is noticeable that the University website has limited information about the College of Computer Studies specifically in the area of the College, Students, and Instructors. That is why developing a website exclusively for the college that will handle all necessary information needed by the students, faculty, staff and the community is a must.

## 5.5 Acceptability of the Essentials in the Development of the Website

This section discusses the different website essentials based on the study of<sup>3</sup> about User Perceived Web Quality entitled “Developing and validating an instrument for

measuring user perceived web quality". The result in every web quality characteristic is provided in the following tables:

## 5.6 Site Navigation and Orientation

Good site navigation and orientation help the user to move through website. The website does not only show where to go but also where the current page the user is. Each page on a website could be the first page for the user, so it is very important to convey enough contexts so that the user can proceed immediately towards their goal. Table 5 shows the result on site navigation and orientation. "Important key pages are accessible from most locations on site" got the highest mean which is equivalent to 4.92 with a verbal description of SA; It is followed by "Search if available is accessible from any site page" got 4.69 which had a verbal description of SA; "Content makes it clear where links will take the visitor" got 4.54 which is verbally described as SA; "Home page link always available" with a mean of 4.46 and a verbal description of SA; "Obvious what site is about within 3 seconds of landing on any page" got 4.15 as mean and verbally described as A; and lastly "Current location on site is apparent" has the lowest mean which is equivalent to 4.08 and verbally described as A. The overall weighted mean on this area is equivalent to 4.47 and verbally described as SA. Based on the result, it implies that the developed website is following standards set for site navigation and orientation.

## 5.7 Site Functionality

The functionality of a website is the interactive part of the site which allows the visitor to respond in some way, thus turning the visitor into a regular user of the website. The Table 6 shows the result on site functionality. It has 8 parameters which were evaluated by the respondents. "Provides visitor interaction" had the highest mean which is equivalent to 4.77 and verbally described as SA; "All major browsers supported" and "Different browser versions supported" has a total mean of 4.69 which were verbally rated as SA; "No special plug-ins need to be downloaded to visitors browser" and "Does not use deception to trick or mislead visitor into taking action" got 4.62 as mean and verbally described as SA; "No non-standard browser plug-ins needed to view content" had a mean of 4.46 which were verbally described as SA; "Key functions

accessible" with its mean of 4.38 and verbally described as SA; "Key functions intuitive and easy to use" got the lowest mean which is equivalent to 3.62 and verbally rated as A. the overall weighted mean for site functionality is and verbally described as SA. It is very evident that the website develops for the College is in consonant with the standard set for site functionality.

**Table 6.** Site functionality

| Parameters                                                            | Mean        | Verbal Description |
|-----------------------------------------------------------------------|-------------|--------------------|
| Key functions accessible                                              | 4.38        | SA                 |
| Key functions intuitive and easy to use                               | 3.62        | A                  |
| Does not use deception to trick or mislead visitor into taking action | 4.62        | SA                 |
| Provides visitor interaction                                          | 4.77        | SA                 |
| No non-standard browser plug-ins needed to view content               | 4.46        | SA                 |
| No special plug-ins need to be downloaded to visitors browser         | 4.62        | SA                 |
| All major browsers supported                                          | 4.69        | SA                 |
| Different browser versions supported                                  | 4.69        | SA                 |
| <b>Average weighted mean</b>                                          | <b>4.48</b> |                    |
| <b>Interpretation</b>                                                 | <b>SA</b>   |                    |

Legend: 4.20 – 5.0 SA = Strongly Agree; 3.40 – 4.19 A = Agree; 2.60 – 3.39 N = Neutral; 1.80 – 2.59 D = Disagree; 1.0 – 1.79 SD = Strongly Disagree

## 5.8 Site Help and Support

Site help and support should be conveniently accessible in locations where user can possibly need answers to their questions. This is critical because they are one of the last places a website visitor will look before deciding to give up. Table 7 shows the result on site help and support. It has 3 parameters which were evaluated by the respondents. "Instructions provided where necessary" and "Instructions brief and accurate" got the highest mean which is equivalent to 4.46 and verbally described as SA; "Contact information readily available" was rated and verbally described as A with 4.0 as mean. The overall weighted mean under site help and support is equivalent to 4.30 and is verbally described as SA. This again in agreement of the standard set for website development specifically for website help and support.

**Table 7.** Site help and support

| Parameters                            | Mean        | Verbal Description |
|---------------------------------------|-------------|--------------------|
| Contact information readily available | 4.0         | A                  |
| Instructions provided where necessary | 4.46        | SA                 |
| Instructions brief and accurate       | 4.46        | SA                 |
| <b>Average weighted mean</b>          | <b>4.30</b> |                    |
| <b>Interpretation</b>                 | <b>SA</b>   |                    |

Legend: 4.20 – 5.0 SA = Strongly Agree; 3.40 – 4.19 A = Agree; 2.60 – 3.39 N = Neutral; 1.80 – 2.59 D = Disagree; 1.0 – 1.79 SD = Strongly Disagree

## 5.9 Site Errors

Good error handling and description on-screen messages are very important for good usability. Correct handling of errors at a code level ensures the website is robust and free from bugs. Displaying the right error message improves the user experience and overall usability. Site error happens when a user try to access a resource on a web that does not exist. Some reasons for this happening can be a broken link, a mistyped URL, or that the webmaster has moved the requested page somewhere else. Table 8 shows the results on the area of site errors. It contains 5 parameters and evaluated by the respondents. “Error messages are clear, useful and helpful” got the highest mean which is equivalent to 4.77 and verbally described as SA; followed by “Contains no orphaned pages or images” which had a mean of 4.69 and with a verbal description of SA; “Contains no broken link” got 4.54 as mean and are verbally described as SA; “Errors highlighted” with a weighted mean of 4.38 and verbally described as SA; “Obvious when error occurs” got the lowest mean equivalent to 4.31 which is verbally described as SA. Overall weighted mean under site errors is equivalent to and is verbally described as SA. This result show that in terms of site errors the developed website is following the standard in website development.

**Table 8.** Site errors

| Parameters                           | Mean | Verbal Description |
|--------------------------------------|------|--------------------|
| Contains no broken link              | 4.54 | SA                 |
| Contains no orphaned pages or images | 4.69 | SA                 |
| Obvious when error occurs            | 4.31 | SA                 |

|                                              |             |    |
|----------------------------------------------|-------------|----|
| Errors highlighted                           | 4.38        | SA |
| Error messages are clear, useful and helpful | 4.77        | SA |
| <b>Average weighted mean</b>                 | <b>4.43</b> |    |
| <b>Interpretation</b>                        | <b>SA</b>   |    |

Legend: 4.20 – 5.0 SA = Strongly Agree; 3.40 – 4.19 A = Agree; 2.60 – 3.39 N = Neutral; 1.80 – 2.59 D = Disagree; 1.0 – 1.79 SD = Strongly Disagree

## 5.10 Site Visitor Control

Site visitor and control allows the user to feel free in using the website. This means that the user can undo or cancel what they are doing anytime they want and most importantly user should not be redirected or mislead to any websites which they are not intended to visit. Results on site visitor control are presented in Table 9. There were 4 parameters under this area which were evaluated by the respondents. “Visitors can undo operations” “Does not use deception, misleading controls to remove visitor choice” were rated 4.77 and are verbally described as SA; “Visitor can cancel operations” and “Does not use repeat exit alert or pop-up traps” got a mean of 4.38 which is verbally described as SA. 4.57 is the overall weighted mean given under this area and verbally described as SA. The overall mean is a proof that in terms of site visitor control, the website is following the standard.

**Table 9.** Site visitor control

| Parameters                                                           | Mean        | Verbal Description |
|----------------------------------------------------------------------|-------------|--------------------|
| Visitor can cancel operations                                        | 4.38        | SA                 |
| Visitors can undo operations                                         | 4.77        | SA                 |
| Does not use repeat exit alert or pop-up traps                       | 4.38        | SA                 |
| Does not use deception, misleading controls to remove visitor choice | 4.77        | SA                 |
| <b>Average weighted mean</b>                                         | <b>4.57</b> |                    |
| <b>Interpretation</b>                                                | <b>SA</b>   |                    |

Legend: 4.20 – 5.0 SA = Strongly Agree; 3.40 – 4.19 A = Agree; 2.60 – 3.39 N = Neutral; 1.80 – 2.59 D = Disagree; 1.0 – 1.79 SD = Strongly Disagree

## 5.11 Site Consistency

Consistency makes website easier to use, because visitors do not need to learn new tricks as they moved around. Site should be internally consistent. Standards

and conventions should be established and applied throughout all the content. Table 10 shows the result of evaluation under the criteria site consistency. 5 parameters were evaluated by the respondents. “Common fonts and text sizes are used” with a mean of 4.85 and verbally describes as SA; “Consistent use of topic related terminology throughout site” got 4.69 mean with SA as verbal description; “Consistent use of visual elements across site” with a weighted mean of 4.54 and verbally described as SA; “Site wide navigation is consistent location throughout site” got 4.46 which is verbally described as SA; “Consistent appearance of site links” has a mean of 4.31 with a verbal description of SA. The overall weighted mean under this area is rated and equivalent to 4.57 and is verbally described as SA. This further explains that the site consistency is within the standard.

**Table 10.** Site consistency

| Parameters                                                  | Mean        | Verbal Description |
|-------------------------------------------------------------|-------------|--------------------|
| Consistent use of topic related terminology throughout site | 4.69        | SA                 |
| Site wide navigation is consistent location throughout site | 4.46        | SA                 |
| Consistent appearance of site links                         | 4.31        | SA                 |
| Consistent use of visual elements across site               | 4.54        | SA                 |
| Common fonts and text sizes are used                        | 4.85        | SA                 |
| <b>Average weighted mean</b>                                | <b>4.57</b> |                    |
| <b>Interpretation</b>                                       | <b>SA</b>   |                    |

Legend: 4.20 – 5.0 SA = Strongly Agree; 3.40 – 4.19 A = Agree; 2.60 – 3.39 N = Neutral; 1.80 – 2.59 D = Disagree; 1.0 – 1.79 SD = Strongly Disagree

## 5.12 Site Visual Design

Visual design focuses on the aesthetics of a site and its related materials by strategically implementing images, colors, fonts, and other elements. A successful web design does not take away from the content on the page or function. Instead, it enhances it by engaging user to build trust and interest in the website. Results for site visual design are depicted on Table 11 parameters were evaluated by respondents. “Visual elements of design are without too many distractions” and “Unnecessary flash intro or splash screens are

avoided” got the highest mean which is equivalent to 4.69 and is verbally describes as SA; “Visual elements build visitor trust and confidence in the site” with its mean rated 4.54 and verbally described as SA; “Layout is clear and easy to follow” had rated 4.38 as its mean with a verbal description of SA. The overall weighted mean under visual design is equivalent to 4.57 which is verbally described as SA. This further means that the visual design is in consonant with the standard in website development.

**Table 11.** Site visual design

| Parameters                                                     | Mean        | Verbal Description |
|----------------------------------------------------------------|-------------|--------------------|
| Layout is clear and easy to follow                             | 4.38        | SA                 |
| Unnecessary flash intro or splash screens are avoided          | 4.69        | SA                 |
| Visual elements of design are without too many distractions    | 4.69        | SA                 |
| Visual elements build visitor trust and confidence in the site | 4.54        | SA                 |
| <b>Average weighted mean</b>                                   | <b>4.57</b> |                    |
| <b>Interpretation</b>                                          | <b>SA</b>   |                    |

Legend: 4.20 – 5.0 SA = Strongly Agree; 3.40 – 4.19 A = Agree; 2.60 – 3.39 N = Neutral; 1.80 – 2.59 D = Disagree; 1.0 – 1.79 SD = Strongly Disagree

## 5.13 Site Conversion

Website conversion is one of the most important factors to the success of a website. It means getting visitor to do what you want them to do whether to fill up forms, to vote or sign up the newsletter. Table 12 shows the results on site conversion. There are 5 parameters evaluated by respondents under this criterion. “Important key pages have most incoming links from other site pages” and “Content has minimal distractions” with mean equivalent to 4.77 and is verbally described as SA; “Encourages visitors trust in what the site offers” and “Clear what site is about within 3 seconds of loading” had a resulting mean rated to 4.46 and is verbally described as SA; “Site gets visitor attention” with mean equivalent to 4.31 and is verbally described as SA. The overall weighted mean under this criterion is equivalent to 4.55 with a verbal description of SA. This implies that in terms of site conversion, the College website is following the standard set for website development.

**Table 12.** Site conversion

| Parameters                                                         | Mean | Verbal Description |
|--------------------------------------------------------------------|------|--------------------|
| Site gets visitor attention                                        | 4.31 | SA                 |
| Clear what site is about within 3 seconds of loading               | 4.46 | SA                 |
| Content has minimal distractions                                   | 4.77 | SA                 |
| Encourages visitors trust in what the site offers                  | 4.46 | SA                 |
| Important key pages have most incoming links from other site pages | 4.77 | SA                 |
| Average weighted mean                                              | 4.55 |                    |
| Interpretation                                                     | SA   |                    |

Legend: 4.20 – 5.0 SA = Strongly Agree; 3.40 – 4.19 A = Agree; 2.60 – 3.39 N = Neutral; 1.80 – 2.59 D = Disagree; 1.0 – 1.79 SD = Strongly Disagree

### 5.14 User-Perceived Web Quality

This is a standard assessment tool developed. This instrument measures the website characteristics such as speed, links, search facilities, usefulness, services offered, fonts, color and other important factors. Table 13 shows user-perceived web quality in terms of the feature as to “the website looks secured for carrying out transactions with an average weighted mean of 4.69. Based on the results, “The website looks easy to navigate through” with a weighted mean of 4.52; “The website has adequate search facilities” with a weighted mean of 4.55; About “The website has valid links” with a weighted mean of 4.47; “Web pages load fast” with a weighted mean of 4.47; “The website has many interactive features” with a weighted mean of 4.45; “The website is easy to access” with a weighted mean of 4.56; “The content of the website is useful” with a weighted mean of 4.52; “The content of the website is complete” with a weighted mean of 4.51; “The content of the website is clear” with a weighted mean of 4.48; “The content of the website is current” with a weighted mean of 4.47; “The content of the website is concise” with a weighted mean of 4.56; “The content of the website is accurate” with a weighted mean of 4.55; “In the website, one can find contact information” with a weighted mean 4.46; “In the website, one can find general information (mission, vision, goals and objectives)” with a weighted mean 4.43; “In the website, one can find details about programs and services offered” with a weighted mean of 4.60; “The website looks attractive” with a weighted mean

of 4.53; “The websites looks organized” with a weighted mean of 4.54; “The websites uses fonts properly” with a weighted mean of 4.52; “The websites uses color properly” with a weighted mean of 4.57; “The website uses multimedia features properly” with a weighted mean of 4.68. Overall the College of Computer Studies Website of Eastern Samar State University got an average weighted mean of 4.53 with its verbal description as Strongly Agree. Based on the response given by the respondents, the website is within the standard set in website development.

**Table 13.** User-perceived web quality

| User-Perceived Web Quality                                                               |               |                    |
|------------------------------------------------------------------------------------------|---------------|--------------------|
| Parameter                                                                                | Weighted Mean | Verbal Description |
| The website looks secured for carrying out transactions                                  | 4.69          | SA                 |
| The website looks easy to navigate through                                               | 4.52          | SA                 |
| The website has adequate search facilities                                               | 4.55          | SA                 |
| The website has valid links                                                              | 4.47          | SA                 |
| Web pages load fast                                                                      | 4.47          | SA                 |
| The website has many interactive features                                                | 4.45          | SA                 |
| The website is easy to access                                                            | 4.56          | SA                 |
| The content of the website is useful                                                     | 4.52          | SA                 |
| The content of the website is complete                                                   | 4.51          | SA                 |
| The content of the website is clear                                                      | 4.48          | SA                 |
| The content of the website is current                                                    | 4.47          | SA                 |
| The content of the website is concise                                                    | 4.56          | SA                 |
| The content of the website is accurate                                                   | 4.55          | SA                 |
| In the website, one can find contact information                                         | 4.46          | SA                 |
| In the website, one can find general information (mission, vision, goals and objectives) | 4.53          | SA                 |
| In the website, one can find details about programs and services offered                 | 4.60          | SA                 |
| The website looks attractive                                                             | 4.53          | SA                 |
| The websites looks organized                                                             | 4.54          | SA                 |
| The websites uses fonts properly                                                         | 4.52          | SA                 |

|                                               |                       |    |
|-----------------------------------------------|-----------------------|----|
| The websites uses color properly              | 4.57                  | SA |
| The website uses multimedia features properly | 4.68                  | SA |
| <b>Average Weighted Mean</b>                  | <b>4.53</b>           |    |
| <b>Interpretation</b>                         | <b>Strongly Agree</b> |    |

Legend: 4.20 – 5.0 SA = Strongly Agree; 3.40 – 4.19 A = Agree; 2.60 – 3.39 N = Neutral; 1.80 – 2.59 D = Disagree; 1.0 – 1.79 SD = Strongly Disagree

### 5.15 Extent of Acceptability of the ESSU-CCS Website (Students and BOR)

The extent of acceptability of ESSU-CCS website in terms of usability, efficiency, reliability and accuracy as perceived by students and BOR representatives are presented in the following tables:

#### 5.16 Usability

Usability is the ease of use of a website. It is a presentation of information and choices in a clear and concise way, a lack of ambiguity and the placement of important items in appropriate areas. This includes understandability, learnability, operability, attractiveness, and usability compliance. Table 14 shows that respondents' perception of the acceptability of the website in terms of usability. "It is easy to understand the concept and application" got the highest weighted mean equivalent to 4.70 with a verbal description of SA; "It is easy to perform its functions application" with a weighted mean of 4.52 with a verbal description of SA;

"It is easy to learn how to use it" with a weighted mean of 4.58 with a verbal description of SA; "The software facilitates the user's data entry" with a weighted mean of 4.51 with a verbal description of SA; "The software facilitates the user's retrieval of data" with a weighted mean of 4.50 with a verbal description of SA; "It is easy to operate and control" with a weighted mean of 4.59 with a verbal description of SA; "The software provides help in a clear manner" with a weighted mean of 4.62 with a verbal description of SA. The average weighted mean of the extent of acceptability of ESSU-CCS website in terms of usability is 4.57 with a verbal description of SA. This implies that the website developed specifically for the College of Computer Studies of Eastern Samar State University is following the standard set by International Organization for Standardization (ISO) in software evaluation specifically in software usability.

**Table 14.** Extent of acceptability of ESSU-CCS website in terms of usability

| Usability                                             |                       |                    |
|-------------------------------------------------------|-----------------------|--------------------|
| Parameter                                             | Mean                  | Verbal Description |
| It is easy to understand the concept and application  | 4.70                  | SA                 |
| It is easy to perform its functions application       | 4.52                  | SA                 |
| It is easy to learn how to use it                     | 4.58                  | SA                 |
| The software facilitates the user's data entry        | 4.51                  | SA                 |
| The software facilitates the user's retrieval of data | 4.50                  | SA                 |
| It is easy to operate and control                     | 4.59                  | SA                 |
| The software provides help in a clear manner          | 4.62                  | SA                 |
| <b>Average Weighted Mean</b>                          | <b>4.57</b>           |                    |
| <b>Interpretation</b>                                 | <b>Strongly Agree</b> |                    |

Legend: 4.20 – 5.0 SA = Strongly Agree; 3.40 – 4.19 A = Agree; 2.60 – 3.39 N = Neutral; 1.80 – 2.59 D = Disagree; 1.0 – 1.79 SD = Strongly Disagree

#### 5.17 Efficiency

Efficiency is the relationship between the level of performance of the software and the amount of resources use under stated condition. It includes time behavior, resource utilization and efficiency compliance. It is a measure of how well a website does what it should do. Assuming that the utility and effectiveness goal are fulfilled, efficiency is the next usability goal to take into consideration. Table 15 presents data on the extent of acceptability of ESSU-CCS website in terms of efficiency. "The software's response time is appropriate" got the highest score equivalent to 4.64 with verbal description of SA; "The software's execution time is appropriate" with a weighted mean of 4.52 with a verbal description of SA; "The resources used are appropriate" with a weighted mean of 4.63 with a verbal description of SA. The average weighted mean of the extent of acceptability of ESSU-CCS website in terms of efficiency is 4.59 with a verbal description of SA. This implies that the result is in consonant with the standard set by the International Organization for Standardization (ISO) in software development specifically in the software efficiency.

**Table 15.** Extent of acceptability of the ESSU-CCS website in terms of efficiency

| Efficiency                                   |                       |                    |
|----------------------------------------------|-----------------------|--------------------|
| Parameter                                    | Mean                  | Verbal Description |
| The software's response time is appropriate  | 4.64                  | SA                 |
| The software's execution time is appropriate | 4.52                  | SA                 |
| The resources used are appropriate           | 4.63                  | SA                 |
| <b>Average Weighted Mean</b>                 | <b>4.59</b>           |                    |
| <b>Interpretation</b>                        | <b>Strongly Agree</b> |                    |

Legend: 4.20 – 5.0 SA = Strongly Agree; 3.40 – 4.19 A = Agree; 2.60 – 3.39 N = Neutral; 1.80 – 2.59 D = Disagree; 1.0 – 1.79 SD = Strongly Disagree

### 5.18 Reliability

Reliability is an attribute that bear on the capability of software to maintain its level of performance under stated conditions for a stated period of time. It includes maturity, fault tolerance, recoverability and reliability compliance. Table 16 presents data on the extent of acceptability of ESSU-CCS website in terms of reliability. “The software does not frequently encounter failure” with a weighted mean of 4.60 with a verbal description of SA; “The software reacts appropriately when failures occur” with a weighted mean of 4.46 with a verbal description of SA; “The software informs users concerning invalid data entry” with a weighted mean of 4.62 with a verbal description of SA;

**Table 16.** Extent of acceptability of the ESSU-CCS website in terms of reliability

| Reliability                                                        |                       |                    |
|--------------------------------------------------------------------|-----------------------|--------------------|
| Parameter                                                          | Mean                  | Verbal Description |
| The software do not frequently encounter failure                   | 4.60                  | SA                 |
| The software reacts appropriately when failures occur              | 4.46                  | SA                 |
| The software informs users concerning invalid data entry           | 4.62                  | SA                 |
| The software is capable of recovering data in the event of failure | 4.65                  | SA                 |
| <b>Average Weighted Mean</b>                                       | <b>4.58</b>           |                    |
| <b>Interpretation</b>                                              | <b>Strongly Agree</b> |                    |

Legend: 4.20 – 5.0 SA = Strongly Agree; 3.40 – 4.19 A = Agree; 2.60 – 3.39 N = Neutral; 1.80 – 2.59 D = Disagree; 1.0 – 1.79 SD = Strongly Disagree

“The software is capable of recovering data in the event of failure” with a weighted mean of 4.65 with a verbal description of SA; The average weighted mean of the extent of acceptability of ESSU-CCS website in terms of reliability is 4.59 with a verbal description of SA. The end result is in agreement with the standard set by International Organization for Standardization (ISO) in software development specifically in the area of reliability.

### 5.19 Accuracy

Accuracy is the existence of set of functions and their specified properties. The functions are those that satisfy stated or implied needs. It includes suitability, interoperability, security and accuracy compliance. Table 17 presents data on the extent of acceptability of ESSU-CCS website in terms of accuracy. “The software does what was proposed correctly” with a weighted mean of 4.55 with a verbal description of SA; “The software is precise in executing its functions” with a weighted mean of 4.56 with a verbal description of SA; “The software is precise in its results” with a weighted mean of 4.68 with a verbal description of SA. The average weighted mean of the extent of acceptability of ESSU-CCS website in terms of accuracy is 4.59 with a verbal description of SA. The result is in accordance with the standard set by the International Organization for Standardization (ISO) in software development specifically in software accuracy.

**Table 17.** Extent of acceptability of the ESSU-CCS website in terms of accuracy

| Accuracy                                           |                       |                    |
|----------------------------------------------------|-----------------------|--------------------|
| Parameter                                          | Mean                  | Verbal Description |
| The software does what was proposed correctly      | 4.55                  | SA                 |
| The software is precise in executing its functions | 4.56                  | SA                 |
| The software is precise in its results             | 4.68                  | SA                 |
| <b>Average Weighted Mean</b>                       | <b>4.59</b>           |                    |
| <b>Interpretation</b>                              | <b>Strongly Agree</b> |                    |

Legend: 4.20 – 5.0 SA = Strongly Agree; 3.40 – 4.19 A = Agree; 2.60 – 3.39 N = Neutral; 1.80 – 2.59 D = Disagree; 1.0 – 1.79 SD = Strongly Disagree

## 5.20 Summary of Extent of Acceptability of Eastern Samar State University – College of Computer Studies Website

Table 18 shows the individual weighted mean and verbal description of Eastern Samar State University – College of Computer Studies website on the evaluation criteria on usability, efficiency, reliability and accuracy. Getting the average mean of this four (4) evaluation criteria's weighted mean resulted to an overall weighted mean of 4.58. Since usability, efficiency, reliability and accuracy are important evaluation criteria in software evaluation according to International Standard Organization (ISO), the overall weighted mean then are verbally described as Strongly Agree.

**Table 18.** Extent of acceptability of Eastern Samar State University- College of Computer studies website in terms of usability

| Evaluation Criteria          | Mean                  | Verbal Description |
|------------------------------|-----------------------|--------------------|
| Usability                    | 4.57                  | SA                 |
| Efficiency                   | 4.59                  | SA                 |
| Reliability                  | 4.58                  | SA                 |
| Accuracy                     | 4.59                  | SA                 |
| <b>Average Weighted Mean</b> | <b>4.58</b>           |                    |
| <b>Interpretation</b>        | <b>Strongly Agree</b> |                    |

Legend: 4.20 – 5.0 SA = Strongly Agree; 3.40 – 4.19 A = Agree; 2.60 – 3.39 N = Neutral; 1.80 – 2.59 D = Disagree; 1.0 – 1.79 SD = Strongly Disagree

## 5.21 Extent of Acceptability of the ESSU-CCS Website (Expert)

The extent of acceptability of ESSU-CCS website in terms of usability, efficiency, reliability and accuracy as perceived by experts are presented in the Tables.

### 5.23 Usability

Table 19 shows that respondents' perception of the acceptability of the website in terms of usability. "It is easy to understand the concept and application" got the highest weighted mean equivalent to 4.69 with a verbal description of SA; "It is easy to perform its functions application" with a weighted mean of 4.62 with a verbal description of SA; "It is easy to learn how to use it", "It is easy to operate and control" and "The software facilitates the user's data entry" with a weighted mean of 4.46 with a verbal descrip-

tion of SA; "The software facilitates the user's retrieval of data" with a weighted mean of 4.38 with a verbal description of SA; "The software provides help in a clear manner" with a weighted mean of 4.08 with a verbal description of A. The average weighted mean of the extent of acceptability of ESSU-CCS website in terms of usability is 4.55 with a verbal description of SA. This implies that the website developed for the College of Computer Studies of Eastern Samar State University is following the standard set by International Organization for Standardization (ISO) in software evaluation specifically in software usability.

**Table 19.** Extent of acceptability of ESSU-CCS website in terms of usability

| Usability                                             |                       |                    |
|-------------------------------------------------------|-----------------------|--------------------|
| Parameter                                             | Mean                  | Verbal Description |
| It is easy to understand the concept and application  | 4.69                  | SA                 |
| It is easy to perform its functions application       | 4.62                  | SA                 |
| It is easy to learn how to use it                     | 4.46                  | SA                 |
| The software facilitates the user's data entry        | 4.46                  | SA                 |
| The software facilitates the user's retrieval of data | 4.38                  | SA                 |
| It is easy to operate and control                     | 4.46                  | SA                 |
| The software provides help in a clear manner          | 4.08                  | A                  |
| <b>Average Weighted Mean</b>                          | <b>4.55</b>           |                    |
| <b>Interpretation</b>                                 | <b>Strongly Agree</b> |                    |

Legend: 4.20 – 5.0 SA = Strongly Agree; 3.40 – 4.19 A = Agree; 2.60 – 3.39 N = Neutral; 1.80 – 2.59 D = Disagree; 1.0 – 1.79 SD = Strongly Disagree

### 5.24 Efficiency

Table 20 presents data on the extent of acceptability of ESSU-CCS website in terms of efficiency. "The resources used are appropriate" got the highest score equivalent to 4.69 with verbal description of SA; "The software's response time is appropriate" with a weighted mean of 4.62 with a verbal description of SA; "The software's execution time is appropriate" with a weighted mean of 4.38 with a verbal description of SA. Average weighted mean of the extent of acceptability of ESSU-CCS website in terms of efficiency is 4.56 with a verbal description of SA. This implies that the result is in agreement with the standard

set by the International Organization for Standardization (ISO) in software development specifically in the software efficiency.

**Table 20.** Extent of Acceptability of the ESSU-CCS website in terms of Efficiency

| Efficiency                                   |                |                    |
|----------------------------------------------|----------------|--------------------|
| Parameter                                    | Mean           | Verbal Description |
| The software's response time is appropriate  | 4.62           | SA                 |
| The software's execution time is appropriate | 4.38           | SA                 |
| The resources used are appropriate           | 4.69           | SA                 |
| Average Weighted Mean                        | 4.56           |                    |
| Interpretation                               | Strongly Agree |                    |

Legend: 4.20 – 5.0 SA = Strongly Agree; 3.40 – 4.19 A = Agree; 2.60 – 3.39 N = Neutral; 1.80 – 2.59 D = Disagree; 1.0 – 1.79 SD = Strongly Disagree

### 5.25 Reliability

Table 21 shows data on the extent of acceptability of ESSU-CCS website in terms of reliability. “The software is capable of recovering data in the event of failure” with a weighted mean of 4.69 with a verbal description of SA; “The software do not frequently encounter failure” and “The software reacts appropriately when failures occur” with a weighted mean of 4.54 with a verbal description of SA; “The software informs users concerning invalid data entry” with a weighted mean of 4.46 with a verbal description of SA. The average weighted mean of the extent of acceptability of ESSU-CCS website in terms of reliability is 4.55 with a verbal description of SA. The result is in consonant with the standard set by International Organization for Standardization (ISO) in software development specifically in reliability.

**Table 21.** Extent of acceptability of the ESSU-CCS website in terms of reliability

| Reliability                                              |      |                    |
|----------------------------------------------------------|------|--------------------|
| Parameter                                                | Mean | Verbal Description |
| The software do not frequently encounter failure         | 4.54 | SA                 |
| The software reacts appropriately when failures occur    | 4.54 | SA                 |
| The software informs users concerning invalid data entry | 4.46 | SA                 |

|                                                                    |                |    |
|--------------------------------------------------------------------|----------------|----|
| The software is capable of recovering data in the event of failure | 4.69           | SA |
| Average Weighted Mean                                              | 4.55           |    |
| Interpretation                                                     | Strongly Agree |    |

Legend: 4.20 – 5.0 SA = Strongly Agree; 3.40 – 4.19 A = Agree; 2.60 – 3.39 N = Neutral; 1.80 – 2.59 D = Disagree; 1.0 – 1.79 SD = Strongly Disagree

### 5.26 Accuracy

Table 22 presents data on the extent of acceptability of ESSU-CCS website in terms of accuracy. “The software does what was proposed correctly” with a weighted mean of 4.69 with a verbal description of SA; “The software is precise in executing its functions” and “The software is precise in its results” with a weighted mean of 4.62 with a verbal description of SA. The average weighted mean of the extent of acceptability of ESSU-CCS website in terms of accuracy is 4.64 with a verbal description of SA. The result is in accordance with the standard set by the International Organization for Standardization (ISO) in software development specifically in software accuracy.

**Table 22.** Extent of acceptability of the ESSU-CCS website in terms of accuracy

| Accuracy                                           |                |                    |
|----------------------------------------------------|----------------|--------------------|
| Parameter                                          | Mean           | Verbal Description |
| The software does what was proposed correctly      | 4.69           | SA                 |
| The software is precise in executing its functions | 4.62           | SA                 |
| The software is precise in its results             | 4.62           | SA                 |
| Average Weighted Mean                              | 4.64           |                    |
| Interpretation                                     | Strongly Agree |                    |

Legend: 4.20 – 5.0 SA = Strongly Agree; 3.40 – 4.19 A = Agree; 2.60 – 3.39 N = Neutral; 1.80 – 2.59 D = Disagree; 1.0 – 1.79 SD = Strongly Disagree

### 5.27 Summary of Extent of Acceptability of Eastern Samar State University-College of Computer Studies Website

Table 23 shows the individual weighted mean and verbal description of Eastern Samar State University – College of Computer Studies website on the evaluation criteria on usability, efficiency, reliability and accuracy. Accuracy got the highest weighted mean equivalent to 4.64 with verbal

description of SA; Efficiency with 4.56 as weighted mean with a verbal description of SA; Usability and reliability had the same weighted mean equivalent to 4.55 which is verbally described as SA. Getting the average mean of this four (4) evaluation criteria's weighted mean resulted to an overall weighted mean of 4.57 with a verbal description of SA.

**Table 23.** Extent of acceptability of Eastern Samar State University- College of Computer studies website

| Evaluation Criteria   | Mean           | Verbal Description |
|-----------------------|----------------|--------------------|
| Usability             | 4.55           | SA                 |
| Efficiency            | 4.56           | SA                 |
| Reliability           | 4.55           | SA                 |
| Accuracy              | 4.64           | SA                 |
| Average Weighted Mean | 4.57           |                    |
| Interpretation        | Strongly Agree |                    |

Legend: 4.20 – 5.0 SA = Strongly Agree; 3.40 – 4.19 A = Agree; 2.60 – 3.39 N = Neutral; 1.80 – 2.59 D = Disagree; 1.0 – 1.79 SD = Strongly Disagree

## 5.28 Issues and Concerns in the Development of Website

Issues and concern are important issues in web development. This problem should be addressed first in order to create or developed the website that will cater the needs of the Institution. This section presents the issues such as cost, tome, design and others. Table 24 shows the issues and concern in website development. Respondents identified 5 issues and concern in website development.

**Table 24.** Issues and concern in website development

| Issues and Concerns                              | Frequency | Percentage |
|--------------------------------------------------|-----------|------------|
| Requirements are not clearly defined             | 13        | 100        |
| Requirements need to change for business reasons | 10        | 77         |
| Time                                             | 9         | 70         |
| Design                                           | 8         | 61         |
| Cost                                             | 5         | 38         |

The table revealed that 13 respondents had issues and concerns on the requirements that are not clearly defined with 100%. This means that requirement should be clearly defined before the development starts; requirements need to change for business reasons got 77% which means requirements should be consistent and correct before

starting the project; time on the other hand got 70% which means, website developer should be given enough time to finish the project; design also part of the issues and concerns in website development, it got 61%; lastly is the development cost which got the lowest percentage of 38% which means that is the least important of all the issues and concerns of the respondents for website development. This result implies that issues and concerns should be addressed first before website development. The designed College of Computer Studies website of Eastern Samar State University- Main Campus is presented in chapter 5 of the study and its proposed action plan for the implementation of the website.

## 5.29 Summary of Findings, Conclusion and Recommendations

Presented in this chapter are the summary, findings, conclusion, and the recommendations of the study.

## 6. Summary

The study was conducted in order to propose a website for the College of Computer Studies of Eastern Samar State University and to determine its acceptability. This was carried out during the school year 2015-2016. This study used the descriptive research method using survey questionnaires. The survey questionnaires prepared by the researcher were distributed to the respondents in order to gather important data or information highly needed in this study. Short orientation was conducted prior to the distribution of questionnaires in order to inform the respondents why they had to answer the survey questionnaire with correct and appropriate data or information.

Profile of the respondents, extent of accessibility of information through various media, user perceived-web quality, website essentials such as site navigation and orientation, site functionality, site help and support, site errors, site consistency, site visual design, extent of acceptability of Eastern Samar State University – College of Computer Studies Website in terms of usability, efficiency, reliability and accuracy and issues and concern in website development were assessed and measured. This study used the frequency, percentage, and weighted mean as the statistical tools. The data were presented in table forms. Analysis and interpretation also were presented. These data were based from the responses of 261 respondents whom composed of 248 students coming from

all year levels and 13 faculty members of the College of Computer Studies whom serves as experts and 2 members of the board of regents.

## 7. Findings

The following are the findings of the study presented according to the logical presentation of problems in Chapter 1. Based on the result of the data gathered which were treated statistically, the following were laid out:

The study had a total of 263 respondents. Respondents are represented by students with a total of 248, 13 faculty members and two (2) BOR representatives.

As regards to the accessibility of information, ESSU website got the lowest score which implies that the current University website is not catered for disseminating of information of the College of Computer Studies

As to user-perceived web quality, the website got a high score from the respondents of 4.53 with verbal description of Strongly Agree.

The website was evaluated through the standard set by International Organization for Standardization on software evaluation specifically in the criteria on usability, efficiency, reliability and accuracy. The overall weighted mean resulted to 4.58 which are verbally described as Strongly Agree.

With regard to the issues and concern in website development, results revealed that respondents had issues and concerns on the requirements that are not clearly defined which got 100% which becomes the most common problem in developing a website. The least important issue and concern is the cost which got 38%.

## 8. Conclusion

Based on the findings of the study, dissemination of information about college, instructor and students and other related information about the College of Computer Studies of Eastern Samar State University is more effective through utilization of ESSU-CCS website.

## 9. Recommendations

Based on the conclusion cited, the College of Computer Studies of Eastern Samar State University must therefore use the website being designed and developed in order to disseminate useful, efficient, reliable and accurate information about the college, instructor, student and other areas.

## 10. References

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