

Assessment of the Campus Clientele Satisfaction Management System (CSU-CCSM) in Frontline Services in CSU Aparri

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ABSTRACT

The paper & pen based method to gather the feedbacks of the customer or clientele that are prone to inefficiencies, errors, and delays, requiring substantial time and effort to maintain. The university's capacity to make prompt, well-informed judgments and adjust to changing conditions is hampered by this inconsistent approach. The project titled "Assessment of the Campus Clientele Satisfaction Management System (CSU-CCSM) in Frontline Services in CSU Aparri" is a new paradigm for Cagayan State University-Aparri, that combines modern customer-focused tactics with traditional educational principles. The system is designed The Agile Development model was selected as the development paradigm for this study, and it was applied within the context of the System Development Life Cycle (SDLC). PHP and MySQL were used in the system's development, along with a proprietary development methodology, Microsoft Visual Studio Code serving as the code editor and XAMPP serving as the local development environment. HTML, CSS, Bootstrap, JavaScript, and HTML were used for front-end development and styling. The CSU-CCSM offers Real-time reporting tools, faster data gathering procedures, and user-friendly digital interfaces. With the move from paper-based processes to an advanced digital platform, CSU hopes to transform how it evaluates, analyzes, and reacts to stakeholder feedback. The transformation not only shows CSU's commitment to innovation, but also its commitment to creating a responsive, inclusive

environment where stakeholders' concerns are understood, heard, and promptly taken into consideration.

Keywords: *Clientele Satisfaction Management System, CSU-CCSM, research, capstone, MySQL, JavaScript, CSS, Bootstrap, HTML, XAMPP, Visual Studio Code, paper & pen, feedback.*

I. INTRODUCTION

Within ISO, customer satisfaction makes ensuring that products and services meet the appropriate quality requirements for consumers. In order to take remedial action if customer criteria are not being fulfilled, satisfaction is tracked, recorded, evaluated, and analyzed [1].

The present method of tracking customer satisfaction in CSU Aparri is frequently paper-based; labor-intensive, and prone to mistakes [2]. Lack of a centralized method for tracking progress can cause confusion, redundant work, and problems maintaining client satisfaction.

Furthermore, it is difficult to retrieve data when needed due to the manual customer satisfaction management procedure that is already in place, which delays decision-making [3]. In the competitive corporate world of today, when it's imperative to make prompt, well-informed judgments, this might pose a serious problem [4].

The value of CCSM is found in its ability to predict areas for innovation and improvement in a variety of university functions, in addition to its ability to measure satisfaction levels [5]. It is imperative to put in place a thorough and

integrated methodology in order to address these issues [1] and lead CSU into a new age of customer satisfaction evaluation. The transformation not only shows CSU's commitment to innovation, but also its commitment to creating a responsive, inclusive environment where stakeholders' concerns are understood, heard, and promptly taken into consideration. CSU hopes to foster a culture of continuous development by integrating a modernized system an improving the general caliber of services, learning opportunities, and connections within its academic community.

II. STATEMENT OF THE PROBLEMS

This capstone project entitled “Assessment of the Campus Clientele Satisfaction Management System in Frontline Services in CSU Aparri” seeks to provide answers to the following questions:

1. What are the current issues of the Campus Clientele Satisfaction Management implemented in CSU Aparri?
2. What system can be proposed to post solutions to the issues identified by using the CCSM system?
3. What extent do the IT experts rate the developed CCSM system on the following ISO 25010:2011 standards?
4. What is the acceptability and usability level of the developed CSU-CCSM as viewed by the end-users in accordance to Technology Acceptance Model (TAM)?

III. METHODOLOGY

A. Research Design

Agile Development Model

The Agile Method shows the researcher's way of

implementing the system in Cagayan State University- Aparri Campus, “Assessment of the Campus Clientele Satisfaction Management System in Frontline Offices in CSU Aparri”, the Cycle covers the process in the making of the study.

Figure 1. Agile Development Model



B. Locale of the Study

The research will take place at the Aparri Campus of Cagayan State University. The study is conducted in the second semester of the academic year 2023- 2024.

C. Data Gathering Tools and Instruments

The study made use of internet research, observation and interview, and an Evaluation Questionnaire – (1) the ISO 25010:2011 for the IT Experts and (2) the User Acceptance and the Ease of Use and Usefulness Efficacy based to Technology Acceptance Model for End-Users.

IV. RESULTS AND DISCUSSIONS

Current practices, policies, problems, and issues encountered in systematizing human resources at CSU-Aparri?

Based on the data-gathering activities laid down through observation notes and casual interviews, the following are the current practices, issues, policies, and problems encountered by faculty and staff:

1. Paper & Pen based of gathering data:

- Gathering Feedbacks using the traditional process is time-consuming and prone to errors because of the usage of paper as tool for gathering the feedback. The present drop-box are not secured and can also be destroyed because all are located outside the frontline offices which leads to data lost.

2. Procedure in Collecting the forms for report:

- The Program chair will collect all the forms from the drop-boxes available in the campus, and will record one-by-one which is time consuming and may lead to biases because of the empty forms and just filled with the program chair.

3. Difficulty in understanding and reading the survey questions:

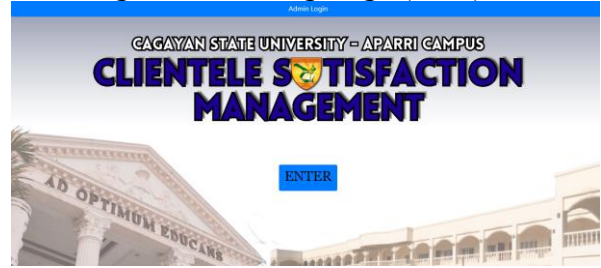
- Several respondents showed difficulty or confusion. With regards to the quality of print, some forms are unreadable because of the small font and fading texts, which had an impact on the quality and dependability of the information gathered.

4. Difficulty in returning completed survey forms.

- Returning to the specific drop-off locations of that office were among the problems noted by some respondents. It is inconvenient and time-consuming to go back to that specific office to drop the survey form, most especially if they have a lot of transactions.

The Developed Campus Clientele Satisfaction Management System in CSU Aparri

Figure 2. Landing Page (User)



The figure above shows the Landing Page of the System. This will be the page when the client clicks the search for the link csm.csuaparrri.net or scan the QR code available for each frontline office.

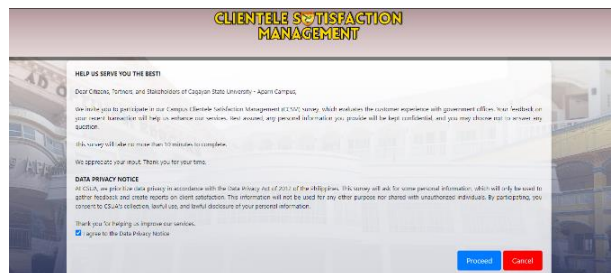
Figure 3. Frontline Office page (User)



This is the page that will appear when the client clicks enter in the Landing page. In this page, the clients are able to see the front-line offices they may survey.

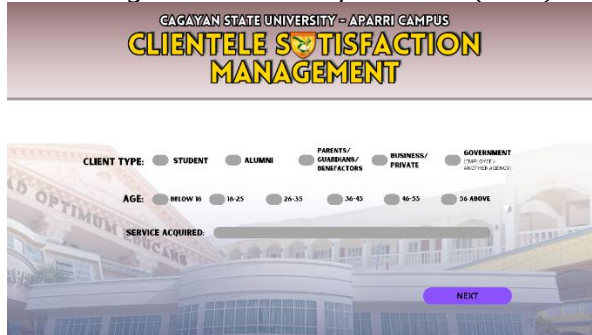
Figure 4. Data Privacy Page (User)

The figure above shows the Data Privacy



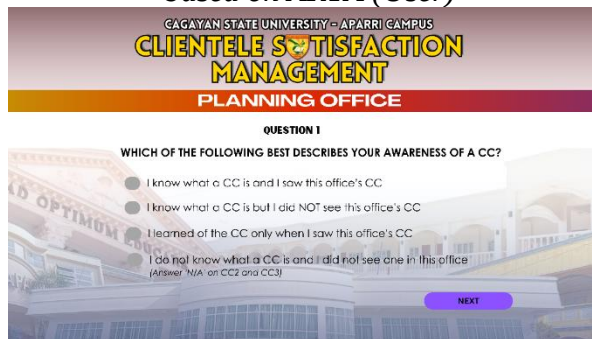
Message that will inform the client that the data they will provide will be kept in the database of the campus for record. And if they agree, the proceed button will activate.

Figure 5. Client Information (User)



This is the page that will appear upon clicking any office the client transacted and wants to give feedback to that office. But before proceeding to the specific questions, the system will ask for some data about the client.

Figure 6. Citizen's Charter Question 1 based on ARTA (User)



This page is the beginning of asking questions, Citizen's Charter (CC) will consist of 3 questions. So when the Client clicks next, that's the time they will answer the remaining questions.

Figure 7. Service Quality Dimension Question 1 based on ARTA (User)



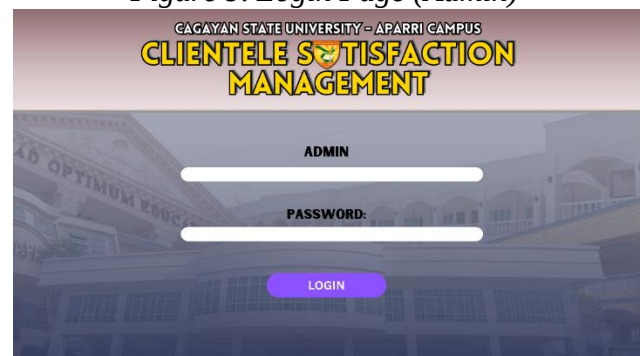
This page is the beginning of asking questions about Service Quality Dimension right after answering the Citizen's Charter (CC) questions. In the Service Quality Dimension, the Client will answer 9 questions.

Figure 8. Comment/Suggestion Page (User)



The figure above shows the page that will ask the client to give the suggestions/comments to further improve the service of that office they are surveying.

Figure 9. Login Page (Admin)



This is the page where the Admin, specifically the person in-charged in collecting and analyzing the data. This is required to avoid others in entering and viewing the database.

Figure 10. Period of Reports (Admin)



This is the page where the Admin, can choose what period of report to view. There are three options, which are the Weekly, Monthly, and Annual Report.

Figure 11. Weekly Report Page (Admin)



This is the page where the admin is able to see how many responses are there in an office. The admin also can view the weekly report of each office by clicking the arrow beside the target office.

Figure 12. Client Information Report (Admin)

This is the page where the admin or the program chair can view the Weekly Report under the Accounting's office which consists of the Responses and the Percentage. The admin also can print the Report by clicking the print button.

ACCOUNTING OFFICE		
WEEKLY REPORT (Jun 03-09, 2024)		
CLIENT TYPE	RESPONSES	PERCENTAGE
CSU STUDENT	0	0%
CSU EMPLOYEE	0	0%
PARENT/GUARDIAN	0	0%
ALUMNI	0	0%
BUSINESS	0	0%
GOVERNMENT	0	0%
SEX	RESPONSES	PERCENTAGE
MALE	2	50%
FEMALE	2	50%
REGION	RESPONSES	PERCENTAGE
REGION I	0	0%
REGION II	0	0%
REGION III	0	0%
REGION IV	0	0%
REGION V	0	0%
REGION VI	0	0%
AGE GROUP	RESPONSES	PERCENTAGE
BELOW 18	0	0%
18-25	0	0%
26-35	0	0%
36-45	0	0%
46-55	0	0%
56 ABOVE	0	0%
TRANSACTION TYPE	RESPONSES	PERCENTAGE
ONLINE ONLY	0	0%
ONSITE/FACE-TO-FACE ONLY	0	0%
PHONE/SMS ONLY	0	0%
COMBINATION(ONLINE/PHONE/ONSITE)	0	0%
SERVICES AVAILABLE	RESPONSES	PERCENTAGE
VALIDATION OF ENROLLMENT	0	0%
ISSUANCE OF EXAMINATION PERMIT FOR OPT-OUT STUDENTS	0	0%
SIGNING OF CERTIFICATE OF ENROLLMENT AND BILLING	0	0%
ISSUANCE OF STATEMENT OF ACCOUNTS OF STUDENTS	0	0%
ADJUSTMENT OF ASSESSMENT DUE TO SCHOLARSHIP DISCOUNT AND PETITION	0	0%
ADJUSTING OF FEES DUE TO CANCELLING OF ENROLLMENT AND DROPPING OF SUBJECT	0	0%
PROCESSING OF REFUNDS FOR STUDENTS	0	0%
SIGNING OF STUDENT CLEARANCE (TERMINAL & FOR TRANSFER)	0	0%

Figure 13. Citizen's Charter Report (Admin)
The Admin can view what are the responses of

ACCOUNTING OFFICE		
CHARTER CITIZEN'S WEEKLY REPORT (Jun 03-09, 2024)		
EXTERNAL SERVICES	RESPONSES	PERCENTAGE
CC1 I know what a CC is and I saw this office's CC	0	0.00%
CC1 I know what a CC is but I did NOT see this office's CC	0	0.00%
CC1 I learned of the CC only when I saw this office's CC	0	0.00%
CC1 I do not know what a CC is and I did not see one in this office	0	0.00%
CC2 Easy to see	0	0.00%
CC2 Somewhat easy to see	0	0.00%
CC2 Difficult to see	0	0.00%
CC2 Not visible at all	0	0.00%
CC3 Helped very much	0	0.00%
CC3 Somewhat helped	0	0.00%
CC3 Did not help	0	0.00%
CC3 N/A	0	0.00%

the clients about how much they are familiar with the Citizen's Charter of that office. And the Admin or the Program Chair can print the report and distribute it to that frontline office for that office to be informed.

Figure 14. Service Quality Dimension Report (Admin)

ACCOUNTING OFFICE							
SERVICE QUALITY DIMENSION'S WEEKLY REPORT (Jun 03-09, 2024)							
Service Quality Dimension	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Responses	Rating
Satisfied	0	0	0	0	0	9	0
Responsive	0	0	0	0	0	9	0
Reliability	0	0	0	0	0	9	0
Access and Facilities	0	0	0	0	0	9	0
Communication	0	0	0	0	0	9	0
Costs	0	0	0	0	0	10	0
Integrity	0	0	0	0	0	8	0
Assurance	0	0	0	0	0	9	0
Outcome	0	0	0	0	0	9	0

This is the page where the admin is able to see how many responses are there in an office under the Service Quality Dimensions. The admin can view the report through online or can print the report for dissemination.

Figure 15. Complaint Report (Admin)

CAGAYAN STATE UNIVERSITY - APARRI CAMPUS CLIENTELE SATISFACTION MANAGEMENT			
ACCOUNTING OFFICE			
WEEKLY REPORT (Jun 03-09, 2024)			
WATER COMPLAINT	CAMPUS OFFICIAL INVOLVED	ITEM OF THE CC INVOLVED	ACTION/SERVICE REQUESTED

This is the page where the admin can view the Weekly Complaint Report of a specific office. The admin can print the report and disseminate it to that concerned frontline office.

RESPONDENTS OF THE STUDY

Table 1. Summary of the respondents of the study

Participants	Frequency (n=46)	Percentage (%)
Program Chair	1	2.17
IT Experts	5	10.87
Frontline Office heads	10	21.74

Students	10	21.74
Faculty	10	21.74
Guests	10	21.74
Total	100	

The researcher used a purposive sampling method as a basis in identifying respondents for the study. One (1) Program Chair, five (5) IT experts, ten (10) Frontline Office heads, ten (10) students, ten (10) faculty and ten (10) guests, a total number of 46 respondents.

The extent of compliance to ISO Standards as assessed by the IT Experts.

Table 2. Summary of rate of the IT Experts

Criteria	IT Experts	
	WM	DV
1. Functional Suitability	4.87	VHE
2. Performance Stability	4.8	VHE
3. Compatibility	4.8	VHE
4. Usability	4.8	VHE
5. Reliability	4.73	VHE
6. Security	4.73	VHE
7. Maintainability	4.6	VHE
8. Portability	4.87	VHE
Overall Mean	4.77	VHE

The Table 2 summarizes that the system was given a 4.77 weighted mean after being rated by IT experts, which indicates that the level of compliance of the system on ISO 25010:2011 is very high extent.

User Acceptance of the Developed Project

Table 3. Summary of Assessments of the end-user/s/intended user

Statement	End-User/s	
	WM	Interpretation

Performance Acceptance	4.88	SA
Effect Expectancy	4.85	SA
Social Influence	4.93	SA
Facilitating Condition	4.79	SA
Behavioral Interaction	4.83	SA
Overall Mean	4.86	SA

The Table 3 summarizes that the system was given 4.86 weighted mean after being evaluated by the intended end- users, which indicates that the User Acceptance of the Developed Project as based on Technology Acceptance Model is strongly agree.

Perception on the Ease of Use and Usefulness Efficacy

Table 4. Summary of Assessments of the end-user/s/intended user

Statement	End-User/s	
	WM	Interpretati on
Perceived Ease of Use	4.70	SA
Perceived Usefulness	4.63	SA
Self-Efficacy	4.70	SA
Response Efficacy	4.75	SA
Adoption Intentions	4.76	SA
Overall Mean	4.71	SA

The Table 4 summarizes that the system was given 4.71 weighted mean after being evaluated by the intended end- users, which indicates that the perception on the Ease of use and Usefulness as Efficacy of the system as based on Technology Acceptance Model is strongly agree.

V. CONCLUSIONS

Based on an evaluation, CSU Aparri's designed Campus Clientele Satisfaction Management System (CCSM) was successful in satisfying the requirements of both end users and IT experts. The CSU-CCSM exhibits good performance and

dependability in a number of areas assessed by IT experts, such as compatibility, security, usability, functionality, performance stability, maintainability, and portability. The top marks went to portability and functional suitability. The implementation of the CSUA Campus Clientele Satisfaction Management System (CCSM) has demonstrated its efficiency and accuracy, outperforming the present methods for collecting and evaluating data. The system's usability and value in obtaining customer feedback are further validated by the end users' favorable comments. To guarantee an even more intuitive and user-friendly experience, there could be room for improvement, especially in the area of usability. Additionally, end users' assessments of the system's usefulness, efficacy, and user acceptance show high levels of satisfaction and favorable response. Users strongly want to adopt and use the CSU-CCSM because they believe it offers substantial performance gains.

The evaluation's findings confirm that CSU-CCSM is successful in satisfying the requirements of both end users and IT experts. The system's efficacy, dependability, and security are highlighted by its conformity to ISO standards. Positive feedback from end users confirms the system's effectiveness and usability in helping frontline offices and also the program chair with the feedback collection tasks. But there could be room for improvement, especially in terms of usability, to guarantee an even more straightforward and user-friendly experience.

VI. RECOMMENDATIONS

Based on the study's findings, the following recommendations are proposed to further enhance the system:

1. Increased Accessibility: Ensuring that computer surveys are available both online and offline guarantees that respondents may participate regardless of their familiarity with digital tools or level of access to technology.
2. Fostering Professional Development: Frequent training sessions ensure that all front-line staff

adhere to the same protocols and criteria, helping to standardize the survey process.

3. **Powerful Data Analytics and Data Visualization:** Processing massive amounts of survey data is made easier by using sophisticated data analytics technologies, which enables rapid and effective data management.
4. **Expand the System to Include Other Campuses for Broader Use and Comprehensive Data Collection:** Expanding the system to include additional campuses ensures a more representative sample of the campus community.
5. **Fully Implement the Campus Clientele Satisfaction Management System (CCSM) Across the Entire University:** Consistent quality assurance is ensured by fully implementing the CCSM throughout all university campuses and departments.

IX. ACKNOWLEDGEMENT

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BIONOTE

Mr. Cedric T. Sales is an accomplished and dedicated scholar currently pursuing his Master of Science in Information Technology at Cagayan State University - Aparri. As a recipient of the prestigious Department of Science and Technology – Science Education Institute (DOST-SEI) scholarship, Cedric has demonstrated exceptional academic prowess and a strong commitment to advancing the field of information technology.

His research interests are diverse and forward-thinking, encompassing areas like machine learning, big data analytics, and the development of intelligent systems. Cedric's work aims to address contemporary challenges in the IT sector and contribute meaningful solutions that can enhance both local and global technological landscapes.

His journey is a testament to the impact of dedication, continuous learning, and a vision for a technologically empowered future. As he progresses in his career, Cedric aspires to continue making significant contributions to the field of information technology, inspiring future generations of scholars and innovators.

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