



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

**BARANGAY CANAYNAYAN MANAGEMENT SYSTEM**

**NHEL M. CAMUTA**  
**PIOLO M. ALIDO**  
**RELYN P. MENDIGORIN**

PRMSU - STA. CRUZ CAMPUS  
COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

**RECEIVED**  
BY: JANNIE M. ESCUDAR  
DATE: AUG 03 2022

A Thesis

In partial Fulfilment of the Requirements  
for the degree of Bachelor of Science in Computer Science  
College of Communication and Information Technology  
President Ramon Magsaysay State University

Sta. Cruz, Zambales

PRMSU - STA. CRUZ CAMPUS  
OFFICE OF THE CAMPUS REGISTRAR

**RECEIVED**  
BY: BERNADETTE IV. CATAP  
DATE: 08-03-2022  
TIME: 2:36 PM

PRMSU - STA. CRUZ CAMPUS  
LIBRARY

**RECEIVED**  
BY: MARLOU R. MARAVE  
Library-in-Charge  
DATE: AUG 03 2022  
TIME: 2:21 PM

JULY 11, 2022



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY



Republic of the Philippines  
President Ramon Magsaysay State University  
Sta. Cruz, Zambales



College of Communication and Information Technology

APPROVAL SHEET

This, study entitled “**Barangay Canaynayan Management System**” prepared and submitted by Nhel M. Camuta, Piolo M. Alido, Relyn P. Mendigorin in partial fulfilment of the requirements for the degree of **BACHELOR OF SCIENCE IN COMPUTER SCIENCE** are hereby recommended for oral examination.

**JOHN APRIL N. MARPA, MSCS**

Adviser

Approved by the Panel of the Oral Examiners on July 2022 with a grade of \_\_\_\_\_.

**DANIEL A. BACHILLAR, MSCS**

Chairman

**JANNIE M. ESCOBAR**

Member

**ELEMAR R. LINGA**

Member

Accepted and approved in partial fulfilment of the requirements for the degree of **BACHELOR OF SCIENCE IN COMPUTER SCIENCE**.

Date Signed \_\_\_\_\_

**NOEL B. MERIN**

Campus Director



### EXECUTIVE SUMMARY

This study was made to develop the “**Barangay Canaynayan Management System**”. It sought to identify the evaluation of barangay officials and barangay police Respondents on the software quality using ISO 25010: 2011 in terms of: Functional Sustainability, Performance Efficiency, Compatibility, Usability, Reliability, Security, Maintainability, and Portability. It also sought to identify the level of acceptability of the system to the respondents in terms of functionality and performance.

The respondents of the study were the Captain, Sk Chairman, Officials, Brgy Police of the Barangay Canaynayan Sta. Cruz, Zambales.

Indicator 1, the system cover fundamental requirements has a computed mean of 2.67 interpreted as “Average” for such as profiling and surveying personal status and information with a rank of 3. Indicator 2, the System provides the correct result upon searching has a computed mean of 2.97 interpreted as “Average” for keeping track of borrower’s information in a rank of 2. Indicator 3, the System accessibility of records manipulation has a computed mean of 3.03 interpreted as “Average” in System accessibility of records manipulation with a rank of 1. Therefore, the total average weighted mean of Function Sustainability is 2.89 which rated as “Average” according to quantitative description.

Indicator 1, the evaluation of respondents has a computed mean of 3.00 interpreted as “Average” for the system has firm response, processing times with a rank of 3. Indicator 2, the Minimal amount of types has a computed mean of 3.10 interpreted as “Average” in



**COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY**

resources were used by the system with a rank of 2. Indicator 3, the System can complete its task has a computed mean of 3.13 interpreted as "Average" with less completion among other applications with a rank of 1. Therefore, the total average weighted mean of Performance Efficiency is 3.08 which is rated as "Average" according to quantitative description.

Indicator 1, the system can be used in different computing platforms has a computed mean of 2.97 interpreted as "Average" for directly run without special preparation. With a rank of 3. Indicator 2, the system performs its required function has a computed mean of 3.07 interpreted as "Average" in resources without negative impact on any other system with a rank of 2. Indicator 3, the system adapts with many other computing devices has a computed mean of 3.10 interpreted as "Average" in the growing trend of the BYOD (Bring your own) workplace with a rank of 1. Therefore, the total average weighted mean of Compatibility is 3.04 which is rated as "Average" according to quantitative description.

Indicator 1, the system has all the functions has a computed mean of 2.87 interpreted as "Average" for capabilities I expect it to have with a rank of 5. Indicator 2, the information (such as modifying data of the borrowers and other documentation) has a computed mean of 2.93 interpreted as "Average" in provided with the system with a rank of 4. Indicator 3, I believe I could become productive has a computed mean of 3.00 interpreted as "Average" in quickly using this system with a rank of 3. Indicator 4. It was easy to learn has a computed mean of 3.13 interpreted as "Average" to use this system with



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

a rank of 2. Indicator 1, the system has all the functions has a computed mean of 3.27 interpreted as “Good” for capabilities I expect it to have with a rank of 1. Therefore, the total average weighted mean of Usability is 3.04 which rated as “Average” according to quantitative description.

Indicator 1, the system is always operational has a computed mean of 2.80 interpreted as “Average” for accessible when required for use with a rank of 3. Indicator 2, the system still operates despites has a computed mean of 3.03 interpreted as “Average” in presence of hardware or software faults with a rank of 1. Indicator 3, the event of an interruption or a failure has a computed mean of 3.13 interpreted as “Average” in, system can recover and re-establish its state with a rank of 1. Therefore, the total average weighted mean of Reliability is 2.99 which rated as “Average” according to quantitative description.

Indicator 1, the System prevent the accessibility has a computed mean of 2.97 interpreted as “Average” in unauthorized computer program or data with a rank of 3. Indicator 2, the System constrain the accessibility has a computed mean of 2.93 interpreted as “Average” of information from computer threats with a rank of 2. Indicator 3, the System avert the accessibility has a computed mean of 3.10 interpreted as “Average” of authorized users in ensuring data with a rank of 1. Therefore, the total average weighted mean of Security is 3.00 which rated as “Average” according to quantitative description.

Indicator 1, the system is composed of discrete components has a computed mean of 2.70 interpreted as “Average” in one component has minimal impact on other components with a rank of 1. Indicator 2, the system can be restored has a computed mean of 2.97



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

has a computed mean of 3.13 interpreted as “Moderately Acceptable” in the system task with a rank of 2. Indicator 3, the Functionality has a computed mean of 3.23 interpreted as “Moderately Acceptable” in system modules contents with a rank of 1. Therefore, the total average weighted mean of Performance Efficiency is 3.12 which rated as “Moderately Acceptable” according to quantitative description.

Ae Indicator 1, the Availability computers units has a computed mean of 2.87 interpreted as “Moderately Acceptable” for internet connection service with a rank of 4. Indicator 2, the Availability computed mean of 3.00 interpreted as “Moderately Acceptable” in internet connection service with a rank of 3. Indicator 3, the Availability has a computed mean of 3.20 interpreted as “Moderately Acceptable” in storage for of room system maintenance a rank of 2.

Indicator 1, the Availability computers units has a computed mean of 3.23 interpreted as “Moderately Acceptable” for internet connection service with a rank of 1. Therefore, the total average weighted mean of Usability is 3.08 which rated as “Moderately Acceptable” according to quantitative description.

Indicator 1, the Availability has a computed mean of 3.07 interpreted as “Moderately Acceptable” for system users /authorized user to manage system need with a rank of 3. Indicator 2, the Availability has a computed mean of 3.10 interpreted as “Moderately Acceptable” system users with proper knowledge in information technology with a rank of 2. Indicator 2, the Availability of personnel / users has a computed mean of 3.17 interpreted as “Moderately Acceptable” in o call anytime for the equipment



COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

malfunctions / errors with a rank of 1. Therefore, the total average weighted mean of Usability is 3.11 which rated as “Moderately Acceptable” according to quantitative description.

The Software Quality of the Canaynayan’ Management System using ISO/IEC 25010:2011 was rated by Barangay police, captain officials, and Sk evaluation shows that Compatibility gained the highest mean of 3.10 which rated as “Average”, this result could be attributed to the fact that the system can be used in different computing platforms and can be directly run without special preparation.

The level of acceptability for Canaynayan’s Management System was rated the highest by the respondents. Student’s evaluation shows that Performance gained the highest mean of 3.23 which rated as “Moderately Acceptable”, In addition, this result could be attributed to the fact that the system Completeness, Accuracy and Consistency of the system task, and its functionality of the systems contents are easy to operate.