DIGITAL READINESS OF FARMERS IN PALAYAN CITY

A Thesis Presented to the

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In Partial Fulfillment

of the Requirements for the Degree

Bachelor of Science in Development Communication

by

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THESIS ABSTRACT

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7. Abstract:

7.1 Rationale/Background

In today's digital age, where digital applications have become a strategic approach to agricultural and rural development by aiding farmers in their decision-making, it is essential to evaluate the readiness of farmers, the primary stakeholders in the agriculture sector. Hence, the study aims to assess the digital readiness of farmers in Palayan City, with a particular focus on agricultural digital applications. The researchers seek to understand farmers' perspectives on digital technology and the digital tools available and accessible among farmers for an effective utilization of digital applications towards their farming activities. By gauging the current level of digital readiness among these farmers, the study aims to uncover potential barriers and opportunities for integrating digital solutions to promote more efficient and sustainable farming practices.

7.2 Summary

The study conducted in Palayan City, Nueva Ecija, focused on identifying the digital readiness of registered farmers through a quantitative research design. Utilizing Slovin's formula, a sample size of 351 respondents was determined using SurveyMonkey's online calculator based on Slovin's formula. Respondents were randomly selected through an online spin-the-wheel method. Employing a five-point Likert scale and quantitative analysis methods, such as descriptive and inferential analyses using tools like Statistical Package for the Social Sciences

(SPSS) and Microsoft Excel to offer valuable insights into the digital readiness of farmers within the region. To comprehensively determine factors affecting digital readiness of farmers, the researchers aim to answer the following research questions:

1. What is the socio-demographic profile of the respondents?
2. What are the communication characteristics of the respondents?
3. What are the issues and challenges in having digital devices?
4. What is the level of digital readiness of the respondents?
5. What factors influence the digital readiness of the respondents?
    a. Sociodemographic profile
    b. Communication characteristics
    c. Perceived ease of use of technology
    d. Perceived usefulness of technology

7.3 Major Findings

This study examines how sociodemographic factors, communication habits, and perceptions influence the adoption of agricultural digital applications, namely Rice Crop Manager (RCM) and PRDP Geo Tagging Camera Application, among registered farmers in Palayan City, Nueva Ecija. Using surveys, the researchers collected data on farmers' age, gender, education, training attendance, digital device ownership, and internet connectivity to assess their level of digital readiness.

Results from the survey showed that the majority of the respondents fall within the age range of 50-73 years and are predominantly male. The majority do not have a college degree, although 87 respondents are college graduates and there were 22 graduates in BS Agriculture. Additionally, a significant number, 259 respondents, have not attended any seminars or training on digital agriculture applications. Whereas in the communication characteristics, smartphones are the primary digital device owned, with 86 respondents owning multiple devices such as smartphones and laptops, connected to the internet via personal Wi-Fi or cellular networks.

Furthermore, our analysis identified that sociodemographic and communication characteristics do not significantly affect the digital readiness of farmers. However, farmers demonstrate only a moderate level of digital readiness, highlighting a gap in training opportunities, which appear to be primarily accessible to extension workers and agriculture technicians. This implies that the use of agricultural apps is largely confined to trained professionals, emphasizing the importance of expanding training programs to a broader audience of farmers.

7.4 Conclusions

This study provides insights into the factors influencing the digital readiness of registered farmers in Palayan City, Nueva Ecija with specific focus on agricultural digital applications. Despite the majority of respondents being aged between 50-

73 years and predominantly male, sociodemographic factors did not significantly affect their readiness to embrace digital technologies. Although smartphones were the most common digital devices owned by farmers and internet access was widespread, communication patterns did not strongly influence digital readiness. However, a notable gap in training opportunities was identified, with a considerable portion of farmers having not participated in any seminars or training sessions on digital agricultural applications. This underscores the need to expand training initiatives, currently limited to extension workers and agriculture technicians, to ensure all farmers have the necessary skills to effectively utilize digital tools for agricultural improvement.

7.5 Recommendations

To improve the farmer's digital readiness, the researchers recommend:

- Agriculture Extension Workers and technicians play a crucial role in educating and upskilling farmers about digital farming and agricultural technologies. Creating structured groups, such as barangay farmer groups and cooperatives, can help disseminate knowledge more effectively and ensure farmers are comfortable learning new skills and technologies.

To enhance the study, the researchers recommend:

- Future researchers may delve into qualitative research design for a more comprehensive and depth utilizing focus group discussions or interviews. Qualitative methods provide a more detailed investigation of respondents' digital readiness, diving into complexities beyond quantitative metrics.
- In addition to the variables explored in the study, consider other aspects that may influence respondents' digital readiness, such as farmers' willingness to adopt digital applications for farming management for non-digital users. It is also recommended to consider other factors aside from the explored variables in the study, such as digital literacy of farmers.

8. Translated Abstract (Filipino):

8.1 Rasyonale

Sa digital na panahon ngayon, kung saan ang mga digital na aplikasyon ay naging pangunahing diskarte tungo sa pag-unlad ng agrikultura at kanayunan sa pamamagitan ng pagtulong sa mga magsasaka sa kanilang pagbuo ng mga desisyon, kaya naman mahalagang suriin ang kahandaan ng mga magsasaka, ang mga pangunahing kasapi sa sektor ng agrikultura. Gayunpaman, ang pananaliksik ay naglalayong suriin ang kahandaang digital ng mga magsasaka sa lungsod ng Palayan, na may natatanging pagtutok sa mga digital na aplikasyon para sa agrikultura. Nilalayon ng mga mananaliksik na maunawaan ang mga paniniwala ng mga magsasaka ukol sa mga digital na teknolohiya at kagamitan para sa

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LIST OF ABBREVIATIONS

AEW : Agricultural Extension Workers

CL : College Level

CG : College Graduate

EL : Elementary Level

EG : Elementary Graduate

FAO : Food and Agriculture Organization

HL : High School Level

HG : High School Graduate

ICT : Information Communication Technology

PEOU : Perceived Ease Of Use

PRDP: Philippine Rural Development Project

PU : Perceived Usefulness

RCM : Rice Crop Manager

RSBSA : Registry System for Basic Sectors in Agriculture

SDG : Sustainable Development Goal

SFI : Smart Farming Innovations

TAM : Technology Acceptance Model

TPB : Theory of Planned Behavior

TRA : Theories of Reasonable Action

TRI : Technology Readiness Index

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