

Use Of Digital Information Media For The Independence Of Farmer Women Groups (Case Study: Herang Farmer Women Group And Wera Farmer Women Group, Pacar Village, Pacar District, West Manggarai Regency)

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Abstract

This study aims to analyze the level of digital literacy, identify obstacles to the use of digital information media, and prepare digital-based counseling recommendations for the Herang Farmer Women Group and the Wera farmer women group in Pacar Village, Pacar District, West Manggarai Regency. The methods used are quantitative descriptive and qualitative descriptive. Data was collected through interviews and questionnaires of members of the farmer women group. The results showed that the level of digital literacy of members of the farmer women group was in the medium category with a score of 65.72%. Members of the group already have basic skills in using smartphones, WhatsApp, Facebook, and YouTube, as well as searching for digital information. The obstacles faced include limited internet networks, differences in technology use capabilities, limited devices and internet access costs, and lack of digital assistance and training. Based on these findings, it is recommended that counseling based on the needs of members that focuses on the use of digital media for business development, the use of simple extension methods, as well as continuous mentoring to increase digital literacy and independence of farmer women's groups.

Keywords: Digital Literacy, Digital Information Media, Farmer Women Group, Independence, Digital Counseling

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INTRODUCTION

The development of digital technology is currently happening very rapidly and has an influence on various aspects of people's lives, including the agricultural sector. The presence of the internet and digital information media allows people to obtain information quickly, easily, and efficiently. Digital media such as WhatsApp, Facebook, and YouTube are not only used as a means of communication, but also as a medium for learning, promotion, and business development. Digital media such as WhatsApp, Facebook, and YouTube are not only used as a means of communication, but also as a medium for learning, promotion, and business development. Digital media such as WhatsApp, Facebook, and YouTube are not only used as a means of communication, but also as a medium for learning, promotion, and business development.

Digital media such as WhatsApp, Facebook, and YouTube are not only used as a means of communication, but also as a medium for learning, promotion, and business development. Despite having considerable business potential, product marketing is still limited to the surrounding environment and has not made optimal use of digital media. The use of digital information media has been carried out since 2022 through the use of WhatsApp, Facebook, and YouTube. However, the ability of group members to use digital media still varies. In addition, the limitation of the internet network and the lack of digital-based counseling assistance are obstacles in the development of group businesses.

Based on these conditions, this study aims to determine the level of digital literacy of farmer women groups, obstacles faced in the use of digital information media, and develop effective digital-based counseling recommendations to increase the independence of farmer women groups in Pacar Village.

METHODS

Data Collection Methods

The data in this study consists of primary data and secondary data. Primary data was obtained through interviews, observations, and questionnaires by respondents, while secondary data were obtained from related agencies, literature, and supporting documents for research.

Sample Determination Method

The determination of the research sample uses a saturated sampling technique (census), where all members of the population are made respondents. The research



sample consisted of 15 members of the Herang farmer women group and 20 members of the Wera farmer women group, so that the total number of respondents was 35 people.

Data Analysis Techniques

The data analysis used in this study includes: Quantitative analysis with a descriptive method is used to answer the first objective, namely analyzing the level of digital literacy on the use of digital information media in the Herang farmer women group and the Wera farmer women group. This analysis uses a likert scale that aims to measure the attitudes, opinions, and perceptions of individuals or groups towards social phenomena (Sugiyono, 2011).

1. Find the total score, with the formula:

$$\text{Total score} = \sum (\text{Respondent's answer score})$$

2. Find the average score of the respondents with the following formula:

$$\text{Average} = \frac{\text{total score}}{\text{number of respondents}}$$

3. Finding the maximum score achievement value from the average score

$$\% = \frac{\text{average score}}{\text{average maximum score}} \times 100(5)$$

4. To assess the category of digital literacy level of members of the farmer women group in Pacar Village, the following five-class intervals were used:

- a. Determining the highest score ($X_{\max}$) and lowest score ($X_{\min}$)

$$X_{\max} = \frac{5}{5} \times 100 = 100$$

$$X_{\min} = \frac{1}{5} \times 100 = 20$$

- b. Specify the percentage range = $X_{\max} - X_{\min}$

$$R = 100 - 20 = 80$$

- c. Determine the interval scale (k) = 5

$$I = \frac{R - r}{n}$$

Description:

I = Interval

R = Highest maximum score percentage (100%)

r = Lowest score percentage (20%)

n = Number of categories (5)

Known:

$$= \frac{\text{percentage range}}{\text{interval scale}}$$



$$R = 80$$

$$K = 5$$

$$= \frac{80}{5} = 16$$

Based on this value, a reference category was created for the literacy level of the Herang farmer women's group and the Wera farmer women's group in the use of digital information media as shown in the table below.

Table 1 Achievement of Maximum Score for Literacy Level of Herang Farmer Women Group and Wera Farmer Women Group.

No	Category of Digital Literacy Level Members of Women Farmer Group in the Utilization of Digital Information Media	Maximum Score Achievement	Frequency (People)	Percentage (%)	Score
1	Very Low	20 -36%			
2	Low	37 – 52%			
3	Medium	53 – 68%			
4	Height	69 – 84%			
5	Very High	85 -100%			
Total			$\sum x_i$	100%	

Source: Sugiyono (2012) Statistics for Research

To answer the second goal, which is to know the obstacles and obstacles faced by the Herang farmer women group and the Wera farmer women group in the use of digital media, qualitative descriptive analysis is used and to answer the third objective, which is to compile recommendations Effective digital-based counseling to increase the independence of the Herang farmer women group and the Wera farmer women's group, qualitative descriptive analysis was used.

RESULTS AND DISCUSSION

Respondent's Age

According to the Central Statistics Agency (2015), the productive age group is in the range of 15-64 years, while the non-productive age starts at the age of 65 years and



above. In this study, respondents had a fairly diverse age range. Classification of respondents by age.

Table 2 Distribution of Respondents by Age

No	Age Group (Years)	Number of Respondents (persons)	Percentage (%)
1	15-64	34	97,15
2	>64	1	2,85
Total		35	100

Source: Analysis results, 2026

The average age of the members of the farmer women group was 43 years, indicating the majority of the members The Herang farmer women's group and the Wera farmer women's group are still active and productive. The distribution of respondents showed that as many as 34 people (97.15%) were of productive age, while 1 person (2.85%) was at non-productive age and there were no respondents in the age group 0-14 years.

Formal Education

Formal education is the last education that the farmer in question takes during his life (Syifa et al., 2020).

Table 3 Distribution of respondents by level of formal education.

No	Level of Formal Education (year)	Number of Respondents (persons)	Percentage (%)
1	Elementary School	14	40,00
2	Junior High School	18	51,42
3	Senior High School	3	8,58
Total		35	100

Source: Analysis results, 2026

Based on the research, the majority of respondents have a relatively low level of formal education, namely Junior High School as many as 18 people (51.42%), Elementary School as many as 14 people (40.00%), and Senior High School as many as 3 people (8.58%). This condition can affect the ability to understand and utilize digital

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technology, Therefore, a simple and easy-to-understand extension method is needed to increase the use of digital information media.

Non-Formal Education

Non-formal education is one of the education that a person participates in outside of formal school. This education is usually in the form of counseling and training that aims to change attitudes, The knowledge and skills of farmers from the coaches received can be applied in their farming and can increase farming productivity (Syifa et al., 2020).

Table 4 Distribution of respondents by level of non-formal education

No	Non-Formal Level (year)	Education Number of Respondents (persons)	Percentage (%)
1	<3	18	51,42
2	3-7	17	48,58
Total		35	100

Source: Analysis results, 2026

All respondents had attended non-formal education, with 18 people (51.42%) participating less than 3 times and 17 people (48.58%) participating 3–7 times. These results show that even though respondents have gained experience through counseling or training, the intensity of participation is still relatively low. Therefore, continuous training improvements are needed, especially related to the use of digital media, to support the improvement of production, marketing, and business development skills.

Number of Family Dependents

According to Surbakti (1992), the number of family dependents is classified into small families (2–4 people), medium families (5–8 people), and large families (≥ 8 people). This classification is used to describe the socioeconomic burden borne by the head of the family.

Table 5 Distribution of respondents by number of dependents

No	Number of Family Dependents	Number of Respondents (persons)	Percentage (%)
1	2- 4	21	60,00
2	5-8	14	40,00



Total	35	100
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Source: Analysis results, 2026

The table shows that 21 respondents (60%) have family dependents of 2–4 people, while 14 respondents (40%) had dependents of 5–8 people. This condition shows that most of the Respondents have considerable family dependents, which can affect efforts to increase income and use of digital information media.

The level of digital literacy of farmer women groups based on indicators.

1. Ability to Use Smartphone Digital Devices

These abilities include skills in using smartphones for basic needs, such as turning devices on and off, opening and running applications, accessing the internet network, and Utilizing various digital features to communicate and obtain information.

Table 6 Ability to use smartphone digital devices

No	Category	Number of Respondents (persons)	Percentage (%)	Score
1	Very Low	0	0	0
2	Low	4	11,4	1,8
3	Medium	22	62,86	13,4
4	Height	9	25,71	6,8
5	Very High	0	0	0
Total		35	100	22

Source: Analysis results, 2026

In the table above, most respondents (62.86%) were in the medium category, followed by kategori tinggi (25,71%) dan rendah (11,43%). These results show that the majority of members of the Women Farmers Group in Pacar Village already have basic skills in using smartphones, but their use to support business activities and access to information still needs to be improved. This finding is in line with Sari et al. (2021) who stated that the use of digital devices by farmer groups is still dominated for communication needs.

2. Ability to use digital applications (whatsApp, facebook, youtube)



This ability is related to the individual's skill in operating various digital applications available on devices such as smartphones, such as messaging applications, social media, and other applications used to communicate and obtain information.

Table 7 Ability to Use Digital Applications (whatsApp, facebook, youtube)

No	Category	Number of Respondents (persons)	Percentage (%)	Score
1	Very Low	0	0	0
2	Low	5	14,29	2,26
3	Medium	20	57,14	14,8
4	Height	10	28,57	7,53
5	Very High	0	0	0
Total		35	100	24,59

Source: Analysis results, 2026

Based on Table 4.6, most respondents (57.14%) were in the medium category in the ability to use digital applications, followed by the high (28.57%) and low (14.29%) categories. These results show that the majority of members of the farmer women group in Pacar Village have been able to use digital applications such as WhatsApp, Facebook, and YouTube to communicate and obtain information. However, its use for promotion, marketing, and business development still needs to be improved. These findings are in line with Purwanto et al. (2025) and Prayuti et al. (2024) who stated that digital media plays an important role in supporting access to information, communication, and learning for farmer groups.

3. Ability to search for digital information

This ability is related to the individual's ability to use digital devices and the internet to find various information needed, both through search engines and through social media and other digital platforms.

Table 8 Ability to search digital information

No	Category	Number of Respondents (persons)	Percentage (%)	Score
1	Very Low	0	0	0
2	Low	5	14,29	2,45

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3	Medium	19	54,29	11,25
4	Height	11	31,43	8,6
5	Very High	0	0	0
Total		35	100	22,3

Source: Analysis results, 2026

Based on Table 4.7, most respondents (54.29%) were in the medium category in the ability to search digital information, followed by the high (31.43%) and low (14.29%) categories. These results show that the majority of members of the farmer women group in Pacar Village have been able to use the internet and social media to find information related to processing, packaging, marketing, and product development. However, the use of digital information is still not optimal to support the development of group businesses. Figure 4.3 shows that the most accessed information includes raw materials, production equipment, processing techniques, packaging, pricing, and product marketing and promotion.

4. Ability to utilize WhatsApp information media for communication and information sharing

WhatsApp is an instant messaging application that allows users to communicate online through text messages, voice calls, video calls, as well as share various types of media such as images, videos, and documents.

Table 9 Ability to use WhatsApp information media by farmer women groups

No	Category	Number of Respondents (persons)	Percentage (%)	Score
1	Very Low	0	0	0
2	Low	10	28,57	4,6
3	Medium	20	57,14	12
4	Height	5	14,28	3
5	Very High	0	0	0
Total		35	100	19,6

Source: Analysis results, 2026



Based on Table 4.8, most respondents (57.14%) were in the medium category in being able to use WhatsApp, followed by the low (28.57%) and high (14.29%) categories. These results show that the majority of members of the women farmer group in Pacar Village have been able to use WhatsApp to communicate and share information, such as sending messages, photos, and voice notes. However, the use of WhatsApp features to support product promotion and business development is still not optimal, so capacity building is needed through training and mentoring.

5. Ability to leverage Facebook information media for product promotion or marketing

Facebook is a social networking platform that allows users to connect, communicate, and share various types of content online.

Table 10 Ability to use Facebook information media by farmer women groups in Pacar Village, Pacar District, West Manggarai Regency.

No	Category	Number of Respondents (persons)	Percentage (%)	Score
1	Very Low	0	0	0
2	Low	7	20	3,26
3	Medium	24	68,57	14,53
4	Height	4	11,43	2,93
5	Very High	0	0	0
Total		35	100	20,72

Source: Analysis results, 2026

Based on Table 4.9, most respondents (68.57%) were in the medium category in the ability to use Facebook, followed by the low (20.00%) and high (11.43%) categories. These results show that members of the farmer women's group in Pacar Village have used Facebook to obtain information and communicate, but their use as a medium for product promotion and marketing is still not optimal. This finding is in line with Dewi and Ramadhan (2019) who stated that the potential of Facebook as an educational and promotional medium has not been utilized optimally by farmers.



6. The ability to use YouTube to find information or learning by the Farmer Women Group in Pacar Village.

YouTube digital information media is used by each member of a farmer women's group in Pacar Village to find information about the processing of agricultural products

Table 11 Ability to use youtube information media

No	Category	Number of Respondents (persons)	Percentage (%)	Score
1	Very Low	0	0	0
2	Low	10	28,57	4,8
3	Medium	20	57,14	12,55
4	Height	5	14,28	3,5
5	Very High	0	0	0
Total		35	100	20,85

Source: Analysis results, 2026

Based on Table 4.10, most respondents (57.14%) were in the medium category in the use of YouTube, followed by the low (28.57%) and high (14.29%) categories. These results show that members of the farmer women's group in Pacar Village have used YouTube as a source of information and learning, especially related to product processing, tool use, packaging, and business development. However, its utilization is still not optimal due to limited application usage capabilities, internet access, and quota costs. This finding is in line with Anon (2022) who stated that the use of YouTube by farmers is still limited compared to other social media.

Based on the accumulation of six research indicators, the level of digital literacy of members of the Herang farmer women group and the Wera farmer women group in the use of digital information media is presented in the table below.

Table 12 Levels of Digital Literacy of Herang Farmer Women Group and Wera Farmer Women Group in the Utilization of Digital Information Media.

No	Category	Number of Respondents (persons)	Percentage (%)	Score
1	Very Low	0	0	0
2	Low	11	31,43	44



3	Medium	23	65,72	60
4	Height	1	2,85	76
5	Very High	0	0	0
Total		35	100	59,44

Source: Analysis results, 2026

The results showed that the level of digital literacy of members of the Herang farmer women group and the Wera farmer women group was in the medium category with a score of 65.72%. This shows that most of the group members already have basic skills in using digital media. The ability to use smartphones is quite good because most of the members have been able to operate digital devices for daily communication. The use of applications such as WhatsApp is also quite actively used to share information and communicate between group members. In addition, group members began using YouTube to find information about the processing of agricultural products and the manufacture of processed products. However, the use of Facebook as a means of product promotion and marketing is still not optimal due to limited skills in creating promotional content and managing social media.

This research is in line with the results of research by Putri et al., (2024), which shows that the level of digital literacy of members of the Mawar Berseri farmer women group is in the medium category. This shows that members of the Mawar Berseri farmer women group have been able to access and process data and search for agricultural information properly. Members of the farmer women's group also use digital technology for other needs such as communication and entertainment. In addition, digital networks can also support collaboration and information exchange between farmers. However, limited internet access and digital literacy levels are still challenges in the use of digital technology among farmers. In contrast to the findings of Fauziah et al., (2025) shows that digital literacy has a positive and significant effect on the ability of women farmers to utilize digital technology, both in the aspects of cultivation information and the marketing of agricultural products.

Obstacles Faced by Herang Farmer Women Groups and Farmer Women Groups in the Use of Digital Information Media

Some of the obstacles faced by farmer women groups in the use of digital information media include:

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1. Technical obstacles, in the form of unstable internet networks and limited internet access in the village area.
2. Economic constraints, namely limited internet quota and the ability to buy adequate digital devices.
3. Non-technical obstacles are differences in the level of digital ability between members and lack of digital-based counseling assistance.

These obstacles cause the use of digital media in supporting marketing and business development to not run optimally.

Rekomendasi Penyuluhan Berbasis Digital

Based on the results of the research, recommendations for digital-based counseling that can be carried out include:

1. Practical counseling on the use of social media for product promotion.
2. Training on creating simple digital content using smartphones.
3. Training on creating simple digital content using smartphones.
4. Strengthening the ability of group members to filter and evaluate digital information

Cooperation with the village government and agricultural extension workers to improve internet access and digital facilities in the village.

Digital-based counseling that suits the needs of group members is expected to be able to improve skills, expand product marketing, and encourage the independence of farmer women groups in a sustainable manner.

CONCLUSION

1. The level of digital literacy of the Herang farmer women group and the Wera farmer women group in Pacar Village was in the medium category with a score of 65.72%. Members of the group already have basic skills in using digital media such as WhatsApp, Facebook, and YouTube for communication and information search.
2. The main obstacles in the use of digital information media include the limitations of the internet network, differences in digital capabilities between members, and lack of digital-based counseling assistance.
3. Recommendations for effective digital-based counseling include training on the use of digital media for product promotion, strengthening information filtering skills, and continuous assistance in the use of digital media for the development of farmer women's group businesses.



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