THE LEVEL OF FARMERS' KNOWLEDGE OF DIGITAL MARKETING IN THE PEATLAND-CARING VILLAGE OF KUBU RAYA REGENCY

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Abstract. The current state of agriculture has entered the era of digitalization, requiring farmers to understand digital technology, particularly in the field of agricultural product marketing. This aligns with one of the Peat Care Village program's objectives, namely, strengthening the peatland ecosystem's economic support capacity. This study aims to analyze farmers' level of knowledge and identify the factors influencing their knowledge of digital marketing in the Peat Care Village, Teluk Pakedai District, Kubu Raya Regency. The research method employed is descriptive quantitative analysis. The findings reveal that farmers in the Peat Care Village, Teluk Pakedai District, possess a level of knowledge categorized as "understanding." The influencing factors include age and farming experience. Younger farmers are more receptive to new information, while farming experience affects the adoption of technological innovations. Therefore, it is necessary to enhance farmers' knowledge through awareness programs, training, and the implementation of digital marketing practices.

Keywords: Digital marketing, DPG, PLS, The level of farmers' knowledge

INTRODUCTION

The development of the internet is currently accelerating rapidly and has penetrated various sectors of human life. This condition has forced all sectors to adapt by utilizing internet-based digital technology (Alvaro & Octavia, 2019) including in the agricultural sector (Kilmanun & Astuti, 2020; Nurmawiya & Kurniawan, 2019). The number of internet users among Indonesian farmers averages around 4.5 million (BPS, 2018). West Kalimantan is one of the provinces with a relatively high number of farmers using the internet (96,400 farmers). For comparison, in Bangka Regency, Bangka Belitung Islands Province, around 13,500 farmers, or 21.47% of the total 62,835 farmers, have used the internet to support their daily activities. Kubu Raya is one of the regencies already served by internet

infrastructure, with 34 villages/sub-districts covered, mobile phone service available in 63 villages/sub-districts, and 136 BTS (Base Transceiver Stations) installed (RKPD, 2020).

Kubu Raya Regency is an area vulnerable to peatland fires, which can damage the peatland ecosystem and affect the socio-economic conditions of the community. To address peatland fires, Presidential Regulation of the Republic of Indonesia No. 1 of 2016 on the Peatland Restoration Agency (BRG) outlines strategic measures, including ecosystem restoration, fire monitoring and prevention, and community empowerment to support sustainable peatland conservation. The strategic goals of BRG include hydrological restoration, vegetation rehabilitation, and strengthening the socio-economic resilience of degraded peatland ecosystems (BRG, 2016). One of BRG's initiatives is the "Peatland-Caring Village" (Desa Peduli Gambut/DPG) program, which includes community economic empowerment efforts to improve local welfare.

Many studies have explored the DPG program in relation to the 3R approach (Rewetting, Revegetation, and Revitalization), from peatland management for ecosystem restoration and community welfare (Ramdhan & Siregar, 2018), to recovery and economic empowerment of communities in peatland areas (Adji et al., 2020; Widanarko, 2020). However, research on the economic empowerment aspect of DPG remains limited. One such empowerment effort is the development of adaptive agricultural technology on peatlands (Elvince et al., 2021).

Digital marketing is an alternative form of marketing management that leverages information technology, with the internet serving as an effective and efficient marketing medium (Kotler & G, 2018; Pamungkas & Zuhroh, 2016). The presence of digital marketing can transform conventional marketing into a modern, electronic-based approach that is faster, easier, more affordable, and more accurate. Farmers' knowledge of digital marketing is important for sustainable agriculture in the future (Puspitasari, 2020).

Kubu Raya is one of the regencies in West Kalimantan that participates in the DPG program (BRG, 2019). In Teluk Pakedai Subdistrict, four villages are involved in the DPG program, i.e. Sungai Nipah Village, Madura Village, Teluk Pakedai Dua Village, and Sungai Deras Village. One of the key issues in agricultural marketing is that many farmers still rely on middlemen to sell their agricultural products (Yuantari et al., 2016), which is also the case in the four DPG villages mentioned. As a result, farmers remain trapped in a long marketing chain. Consequently, as noted by (Anggraini et al., 2020) and (Utami, 2020), farmers as producers continue to receive low selling prices, which negatively affects their income.

The agricultural sector must keep up with the evolution of the times and be responsive in adopting technology (Utami, 2020). If it fails to do so, it risks being left behind. Therefore, digital marketing represents an effort to market products and services through digital media available on the internet to reach consumers (Mahacakri, Usman, & Suadnya, 2020). This can shorten the marketing chain by directly connecting farmers to consumers through online marketing. However, this technological advancement must also be accompanied by an increase in knowledge levels (Yanuar, 2013).

Previous research on farmers' knowledge has mostly focused on agricultural production and plant utilization (Azizah & Sugiarti, 2020; Fadilah, Dewi, & Hutabarat, 2018; Sari, Yulida, & Sayamar, 2016), with varying findings (Halida, 2021; Jorgi, 2019). However, research related to the level of farmers' knowledge about digital marketing in the DPG has not yet been conducted. Therefore, the objective of this study is to analyze the level of farmers' knowledge and identify the factors influencing their knowledge of digital marketing in the DPG villages of Teluk Pakedai Subdistrict, Kubu Raya Regency.

METHOD

This research was conducted in Teluk Pakedai Subdistrict, Kubu Raya Regency, across four villages, i.e. Sungai Nipah Village, Madura Village, Teluk Pakedai Dua Village, and Sungai Deras

Village. The research location was selected using a purposive sampling method. The sample was determined using the Probability Sampling method. The samples were collected using Proportional Random Sampling and Snowball Sampling techniques, where was applied based on information obtained from previous respondent, namely the head of the BRG (Peatland Restoration Agency) in Teluk Pakedai Subdistrict. A total of 91 respondents participated in this study. Both primary and secondary data were used. The analysis of farmers' knowledge levels was conducted using the knowledge level (Notoatmojo, 2014). Quantitative analysis was performed using the Partial Least Squares (PLS) method. The software used for data processing was *SmartPLS 3.0*.

The variables used in this study to measure the farmers' knowledge levels are analyzed as shown in Table 1.

Table 1. Operational definition of variables: farmers' knowledge of digital marketing

| Variable	Sub-Variable	Indicator	Criteria
The Level of Farmers' Knowledge of Digital Marketing	Product (*Co-Creation*)	a. Using social media such as SMS, WhatsApp, Facebook, and Instagram b. Using Google to search for desired products c. Uploading photos of business activities and products on social media d. Assigning a name or brand to the product e. Use of appropriate packaging for the product f. Adding a logo to the product packaging	(1) Knowing = If the respondent can recall or has heard of and can mention it (2) Understanding = If the respondent can explain it (3) Application = If the respondent can apply or has already used it (4) Analysis = If the respondent can elaborate on it (5) Synthesizing = If the respondent can integrate it (6) Evaluating = If the respondent can assess or is fully aware of all aspects
	Price (*Currency*)	a. Listing product prices on social media b. Offering discounts on product purchases c. Receiving orders from buyers according to the agreed order and price	(1) Knowing = If the respondent can recall or has heard of and can mention it (2) Understanding = If the respondent can explain it (3) Application = If the respondent can apply or has already used it (4) Analysis = If the respondent can elaborate on it (5) Synthesis = If the respondent can integrate it (6) Evaluation = If the respondent can assess or is fully aware of all aspects
	Distribution (*Communal Activation*)	a. There is an online delivery service b. Knowing that product orders can be made through social	(1) Knowing = If the respondent can recall or has heard of and can mention it

Variable	Sub-Variable	Indicator	Criteria
		media such as WhatsApp, Facebook, etc	(2) Understanding = If the respondent can explain it (3) Application = If the respondent can apply or has already used it (4) Analysis = If the respondent can elaborate on it (5) Synthesis = If the respondent can integrate it (6) Evaluation = If the respondent can assess or is fully aware of all aspects
	Promotion (*Conversation*)	a. There are conversations in buying and selling on social media such as SMS, WhatsApp, Facebook, Instagram b. Knowing how to offer products through social media	(1) Knowing = If the respondent can recall or has heard of and can mention it (2) Understanding = If the respondent can explain it (3) Application = If the respondent can apply or has already used it (4) Analysis = If the respondent can elaborate on it (5) Synthesis = If the respondent can integrate it (6) Evaluation = If the respondent can assess or is fully aware of all aspects

Source: Notoatmojo (2014) and Kotler (2019)

RESULT AND DISCUSSION

Characteristics of DPG farmers in Teluk Pakedai District

The age of the DPG farmer respondents in Teluk Pakedai District is dominated by the 34-44 year age group, which is considered a productive age. The relationship between age and knowledge level shows that farmers aged 34-44 are still at the understanding level. Meanwhile, farmers aged 23-33 have a better level of knowledge in digital marketing, reaching the application level. According to (Soekartawi, 2006), younger age groups usually have a higher curiosity and eagerness to learn. This condition is because almost all farmers are familiar with smartphones/android devices, which they use in their daily activities. Younger DPG farmers are more knowledgeable about using social media and e-commerce applications, as shown in Figure 1.
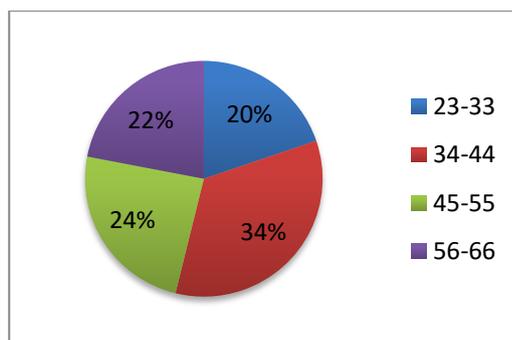
Source: Data Processed, 2021

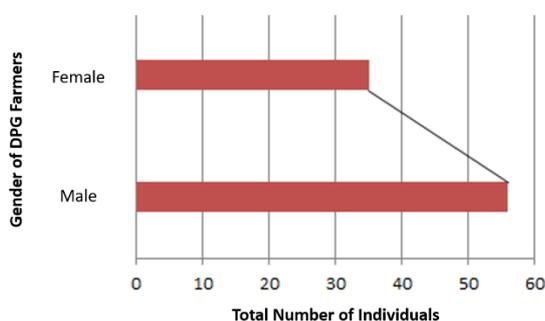**Figure 1. Age of DPG farmer respondents in teluk pakedai subdistrict**

Besides age, the majority of DPG farmers are male rather than female. This aligns with the previous finding (Fika, Salsabilla, & Batangriyan, 2020), that male respondents are more dominant than female respondents in participating in activities. Both male and female categories demonstrate a knowledge level at the understanding level.

Table 2. Farmers' characteristics by gender in the peatland-caring villages, teluk pakedai subdistrict

| Farmers' Characteristics	Number (%)	Knowledge Level
Male	56(62%)	Understanding
Female	35(38%)	Understanding
Total	91(100%)	

Source: Data Processed, 2021

Based on Table 2 both male and female gender categories have a knowledge level at the Understanding level. Both male and female genders have the same opportunity in technology adoption. DPG farmers, whether male or female, have equal opportunities in using digital marketing.

Source: Data Processed, 2021

Figure 2. Gender of DPG farmer respondents in teluk pakedai subdistrict

Based on the research results, the average highest education level of the farmer respondents is elementary school (SD). The highest level of farmers' knowledge was found among those with higher education (bachelor's degree/S1) and senior high school (SMA), which is at the Application level. (Yuantari et al., 2016) stated that low education levels result in limited farmers' ability to utilize technology. This aligns with the situation of DPG farmers, where those with higher education are quicker to adopt digital marketing compared to those without higher education, as shown in Figure 3.
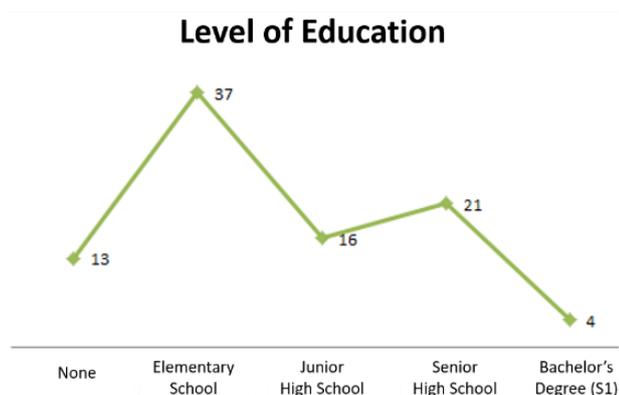
Level of Education

Source: Data Processed, 2021

Figure 3. Education level of DPG farmer respondents in teluk pakedai subdistrict

Experience in farming influences farmers' ability to successfully manage farming businesses and implement technological innovations (Yusliana, Anantanyu, & Rusdiyana, 2020). As shown in Table 1, the highest level of knowledge based on farming experience is found among those with ≤10 years of experience, which is at the Application level. According to previous research (Rahmasari, Kusnadi, & Harniati, 2020), long farming experience does not necessarily indicate that farmers adopt technology; rather, they often rely on traditional knowledge passed down through generations. The DPG farmers who are new to farming, often younger and already owning smartphones, are more likely to readily adopt new technologies because young farmers are more familiar with technology (Nurmawiya & Kurniawan, 2019). Meanwhile, DPG farmers with longer farming experience tend to resist adopting new technologies due to established habits developed over the years, as shown in Table 3.

Table 3. Farming experience of farmers in the peatland-caring villages, teluk pakedai subdistrict

Experience (years)	Number (individuals)	Percentage (%)
≤10	28	88
>10-20	30	89
>20-30	16	45
>30-40	20	47
>40-50	17	37
Total	30	100

Source: Data Processed, 2021

The DPG Farmers' Knowledge Level of Digital Marketing in Teluk Pakedai Subdistrict

Digital marketing is important in the development of agricultural marketing as an effective and efficient medium for promoting agricultural products (Pamungkas & Zuhroh, 2016). The overall level of farmers' knowledge about digital marketing in the DPG program across Teluk Pakedai Subdistrict is presented in Figure 4. The results indicate that 45.1% of farmers in the DPG program have knowledge of digital marketing at the Understanding level. The Understanding level is the second level of knowledge and is considered a low level of knowledge. The Understanding level is categorized as low because it represents the initial phase where one has just begun but has not yet applied or evaluated the knowledge (Effendi, 2015). Therefore, there is a need for introduction and socialization regarding digital marketing. This finding aligns with the previous research, as shown in Figure 4 (Halida, Surni, & Yunus, 2021).
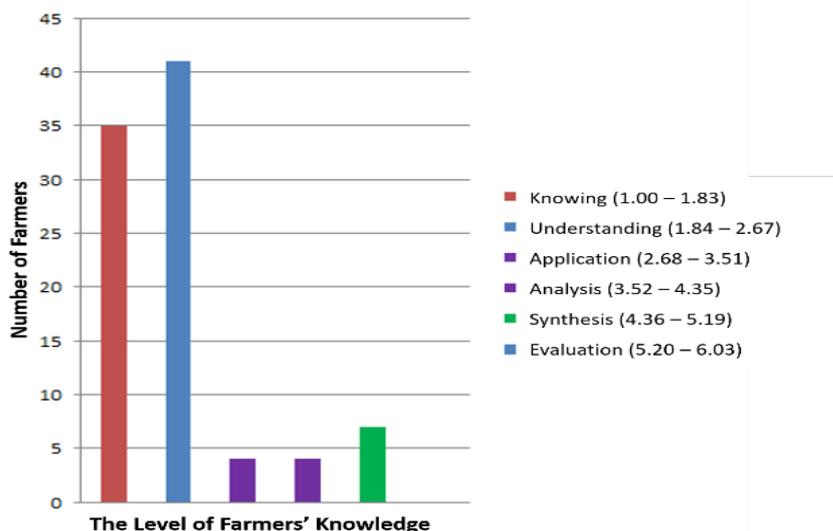
Source: Data Processed, 2021
Figure 4. Farmers' knowledge level of digital marketing in teluk pakedai subdistrict

Factors Influencing DPG Farmers' Knowledge of Digital Marketing in Teluk Pakedai Subdistrict

In the Measurement Model (Outer Model), the results indicate that the convergent validity shows the variables used in this study—namely farmers' characteristics and their knowledge level—are valid. The factors influencing DPG farmers' knowledge of digital marketing in Teluk Pakedai Subdistrict include age, gender, education, and farming experience. Age and farming experience are among the factors that passed the loading factor test, with loading factor values greater than 0.5 (Haryono, 2017). Furthermore, the Average Variance Extracted (AVE) values indicate that the latent variables are categorized valid. The results of Cronbach's Alpha (CA) and Composite Reliability (CR) show that the constructs are acceptable or reliable. The Q^2 value indicates that the exogenous latent variables are appropriate as explanatory variables for predicting the endogenous variables. The R-Square (R^2) value of 0.275, classifies the model as weak. The results of the F-square (F^2) test interpret that the exogenous latent variables have a strong influence at the structural level.

Table 4. Results of sem-pls outer model analysis

| Variable	AVE	CR	CA	R^2	F^2	Q^2
Farmers' Characteristics	0.841	0.914	0.812	-	0.379	-
The level of farmers' knowledge about digital marketing	-	-	-	0.275	-	0.187

Source: Data Processed, 2021

As shown in Table 4, farmers' characteristics have a negative effect on farmers' knowledge level. This means that the two variables are inversely related: as the farmers' characteristics increase, the farmers' knowledge level decreases. The path coefficient obtained from the relationship between farmers' characteristics indicates that there is a significant effect between farmers' characteristics and their knowledge level, as shown in Table 5.

Table 5. Results of sem-pls inner model analysis

Variable	Original Sample	T-Statistik	P-Value
The level of farmers' knowledge about digital marketing	0.841	0.914	0.812

Source: Data Processed, 2021

In the SEM-PLS model test, it was shown that farmers' knowledge level of digital marketing in DPG, Teluk Pakedai Subdistrict is influenced by farmers' characteristics, as shown in Figure 5.
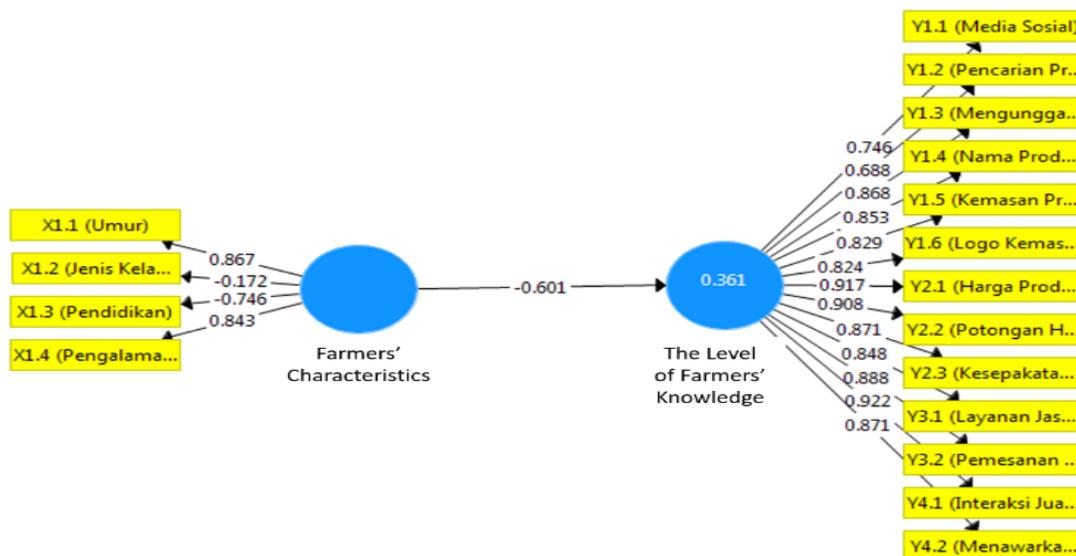
Source: Data Processed, 2021
Figure 5. SEM-PLS outer model results

The factors influencing DPG farmers' knowledge of digital marketing in Teluk Pakedai Subdistrict are age and farming experience. The age variable has a significant effect on farmers' knowledge level of digital marketing. Age affects memory, cognitive patterns in accepting new innovations, and productivity to achieve business success. This variable indicates that the younger the farmer, the greater the likelihood of them in using digital marketing. This aligns with the fact that the millennial generation is more adaptive in using internet technology in daily life, including in rural areas and agriculture (Affandi, Sinaga, & Arifatus, 2017; Feryanto & Rosiana, 2021).

Farming experience also affects farmers' knowledge level of digital marketing. Experienced farmers tend to be more confident in making decisions regarding the marketing of their crops. This is consistent with studies showing that farmers who are adaptive and use their mobile phones to support their farming activities through digital marketing open up wider market opportunities, gain faster information, and are able to improve their welfare in the long term (Fafchamps & Minten, 2012; Jensen, 2019; Zakaria, Endaryanto, Indah, Sari, & Mutolib, 2020).

CONCLUSION

This study aimed to analyze the level of farmers' knowledge and determine the factors influencing their knowledge of digital marketing in the Peatland-Caring Village (Desa Peduli Gambut/DPG) of Teluk Pakedai Subdistrict, Kubu Raya Regency. The findings show that farmers'

knowledge is generally categorized at the *Understanding* level, indicating that most farmers are able to explain digital marketing concepts but have not yet widely implemented them in practice.

Age and farming experience significantly influence farmers' knowledge. Younger farmers tend to be more adaptive to digital technology, while farming experience affects confidence in marketing decisions. These findings suggest that improving farmers' digital marketing capacity requires structured training, practical mentoring, and continuous assistance adjusted to farmers' characteristics. Future studies should focus on developing effective strategies to accelerate the practical adoption of digital marketing within the DPG program.

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REFERENCES

Adji, F. F., Sosilawaty, Darung, U., Nidya, Silva, K. M., Khairunnisa, & Fernandes. (2020). Implementasi Kebijakan Pemulihan Ekonomi Nasional (PEN) Melalui Program Bina Desa Mandiri Peduli Gambut Di Kawasan Eks PLG Sejuta Hektar Provinsi Kalimantan Tengah. Pengabdian Kampus: *Jurnal Informasi Kegiatan Pengabdian Pada Masyarakat*, 7(2), 55–63. Https://Doi.Org/10.52850/Jpmupr.V7i2.2082

Affandi, A., Sinaga, A., & Arifatus, S. A. (2017). Hubungan Pengetahuan Dan Persepsi Harga Dengan Penggunaan Pestisida Dalam Usahatani. *Jurnal Agribisnis Indonesia*, 2(2), 93.

Alvaro, R., & Octavia, E. (2019). Desa Digital: Potensi Dan Tantangannya. Buletin DPR, IV(8), 8–11.

Anggraini, N., Fatih, C., Zaini, M., Humaidi, E., Sutarni, & Analianasari. (2020). Digital Marketing Produk Pertanian di Desa Sukawaringin Kecamatan Bangunrejo Kabupaten Lampung Tengah. *Jurnal Pengabdian Nasional,* 1(1), 36–45.

Azizah, L. N., & Sugiarti, T. (2020). Tingkat Pengetahuan Petani Terhadap Pemanfaatan Tanaman Refugia Di Desa Bandung Kecamatan Prambon Kabupaten Nganjuk. *Agriscience*, 1(2), 353–366.

BPS. (2018). *Hasil Survei Pertanian Antar Sensus (SUTAS)* 2018.

BRG. (2016). *Rencana Strategis Badan Restorasi Gambut.* Brg.Go.Id.

Effendi, R. (2015). Konsep Revisi Taksonomi Bloom Dan Implementasinya Pada Pelajaran Matematika SMP. *Jurnal Ilmu Pendidikan Matematika*, 2(1), 72–78.

Elvince, R., Joni, H., Yuanita, I., & Sosilawaty. (2021a). Program Pemulihan Ekosistem Gambut Untuk Kesejahteraan Masyarakat di Desa Mantangai Tengah, Kecamatan Mantangai,. *Pengabdianmu: Jurnal Ilmiah Pengabdian Kepada Masyarakat*, 6(5), 455–460.

Fadilah, F., Dewi, N., & Hutabarat, S. (2018). Analisis Pemasaran Tbs (Tandan Buah Segar) Kelapa Sawit Pekebun Swadaya di Koperasi Sawit Jaya Kampung Benteng Hulu Kecamatan Mempura Kabupaten Siak. Indonesian *Journal of Agricultural Economics (IJAE),* 9(2), 1–9.

Fafchamps, M., & Minten, B. (2012). No Title. The World Bank Economic, 26(3), 383–414.

Feryanto, & Rosiana, N. (2021). Penggunaan Telepon Seluler Untuk Pemasaran Serta Dampaknya Terhadap Kesejahteraan Petani. *Jurnal AGRISEP Kajian Masalah Sosial Ekonomi Pertanian Dan Agribisnis*, 20(01), 25–40. Https://Doi.Org/10.31186/Agrisep.20.01.25-40

Fika, S., Salsabilla, W., & Batangriyan, R. (2020). Pengaruh Digital Marketing Terhadap Brand Image Di PT.Central Global Network. *Jurnal Bisnis Dan Pemasaran,* 10, 1–12.

Halida, F. M., Surni, & Yunus, L. (2021). Tingkat Pengetahuan Dan Motivasi Petani Padi Sawah Tentang Asuransi Usahatani Padi (AUTP) di Kota Kendari. *Jurnal Sosio Agribisnis (JSA),* 6(1), 27–35. Https://Doi.Org/10.33772/Jsa.V6i1.16434

Haryono, S. (2017). *Metode SEM Untuk Penelitian Manajemen Dengan AMOS LISREL PLS.* Jakarta Timur: Luxima Metro Media.

Jensen, R. T. (2019). Information, Efficiency and Welfare in Agricultural Markets. *International Association of Agricultural Economists*. Https://Doi.Org/10.22004/Ag.Econ.53206

Kilmanun, J. C., & Astuti, D. W. (2020). Potensi Dan Kendala Revolusi Industri 4.0. Di Sektor Pertanian. *Repository.Pertanian.Go.Id.*

Kotler. (2019). *Marketing 4.0 Bergerak Dari Tradisional Ke Digital*. PT Gramedia Pustaka Utama.

Kotler, P., & G, A. (2018). *Principles Of Marketing (Edisi 15).* Pearson: Global Edition.

Mahacakri, I. G. A. C., Usman, A., & Suadnya, W. (2020). Manajemen Usaha Dan Penerapan Digital Marketing Tanaman Hias di Kota Mataram. *Agroteksos,* 30(1), 1–10.

Notoatmojo. (2014). *Metodologi Penelitian Kesehatan*. Jakarta: PT. Rineka Cipta.

Nurmawiya, & Kurniawan, R. (2019). Analisis Kesiapan Petani Dalam Menghadapi Era Revolusi Industri 4.0 (Studi Kasus Provinsi Di Yogyakarta). *Seminar Nasional Pembangunan Pertanian*. Https://Doi.Org/10.31227/Osf.Io/Ymjd6

Pamungkas, B. A., & Zuhroh, S. (2016). Pengaruh Promosi Di Media Sosial Dan Word of Mouth Terhadap Keputusan Pembelian (Studi Kasus Pada Kedai Bontacos, Jombang). *Jurnal Komunikas*i, 10(2), 145–160.

Puspitasari, R. D. (2020). Pertanian Berkelanjutan Berbasis Revolusi Industri 4.0. *Jurnal Layanan Masyarakat*, 3(1), 26–28.

Rahmasari, F. N. F., Kusnadi, D., & Harniati. (2020). Pengaruh Penyuluhan Terhadap Keputusan Petani Dalam Adopsi Teknologi Pengendalian Hama Terpadu Padi Sawah Di Kecamatan Cikalongkulon. *JIP (Jurnal Inovasi Teknologi),* 1(3), 633–646.

Ramdhan, M., & Siregar, Z. A. (2018). Pengelolaan Wilayah Gambut Melalui Pemberdayaan Masyarakat Desa Pesisir di Kawasan Hidrologis Gambut Sungai Katingan Dan Sungai Mentaya Provinsi Kalimantan Tengah. *Jurnal Segara*, 14(3), 145–157.

RKPD. (2020). RKPD Provinsi Kalimantan Barat.

Sari, R. Y., Yulida, R., & Sayamar, E. (2016). Perbandingan Tingkat Pengetahuan Petani Sebelum Dan Sesudah Menggunakan Media Visual Dan Media Audio- Visual Terhadap Petani Di Kelurahan Telaga Samsam Kecamatan Kandis Kabupaten Siak. *Jurnal Online Mahasiswa*, 3(1), 1–11.

Soekartawi. (2006). Analisis Usaha Tani. Jakarta: UI Press.

Utami, D. P. (2020). Pengenalan Digital Marketing Dalam Pemasaran Produk Pertanian Untuk Petani Milenial Desa Wonotulus Kecamatan Purworejo Kabupaten Purworejo. Seminar Nasional Karya Pengapdian Universitas Muhammadiyah Mataram "Peningkatan Daya Saing Hasil Pertanian Menuju Revolusi Industri 4.0" *Prosiding Seminar Nasional Pertanian,* 25–32.

Widanarko, A. P. (2020). Upaya Badan Restorasi Gambut Dan Korea Forest Service Dalam Merestorasi Lahan Gambut Melalui Desa Peduli Gambut di Provinsi Kalimantan Barat 2016-2020. *Ejournal Ilmu Hubungan Internasional*, 8(1), 345–359.

Yanuar, M. R. (2013). Pengaruh Tingkat Pengetahuan Pelaku UMKM Terhadap Digitalisasi Dalam Bidang Pemasaran. *Journal of Chemical Information and Modeling*, 6(2).

Yuantari, M. C., Kurniadi, A., & Ngatindriatun. (2016). Pemanfaatan Teknologi Informasi Untuk Meningkatkan Pemasaran Hasil Pertanian di Desa Curut Kecamatan Penawangan Kabupaten Grobogan Jawa Tengah. *Techno.COM*, 15(1), 43–47.

Yusliana, E., Anantanyu, S., & Rusdiyana, E. (2020). Faktor-Faktor Yang Mempengaruhi Kompetensi Petani Dalam Melakukan Usahatani Ikan Air Tawar Di Kecamatan Polanharjo Kabupaten Klaten. *Agromix,* 11(2), 202–217. Https://Doi.Org/10.35891/Agx.V11i2.2022

Zakaria, W. A., Endaryanto, T., Indah, L. S. M., Sari, I. R. M., & Mutolib, A. (2020). Pendapatan Dan Kesejahteraan Rumah Tangga Petani Ubikayu di Provinsi Lampung. *Jurnal Agribisnis Indonesia,* 8(1), 83–93. Https://Doi.Org/10.29244/Jai.2020.8.1.83-93