# Digital Community Empowerment for Competitive Farmers in Marketing Farmer Products in Sigi Regency, Central Sulawesi, Indonesia

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***Abstrack.***
*This research examines digital empowerment and farmer competitiveness in Sigi Regency. The goal is to understand the digital empowerment process, the socio-cultural significance of farmers' digital activities, and their contribution to competitiveness. The approach used is qualitative interpretive with a cyber-phenomenology paradigm through photo elicitation and MDAP methods. The results indicate that digital empowerment encompasses economic, social, and cultural dimensions.*
***Keywords:*** *digital empowerment, farmers, cyber-phenomenology, photo elicitation and MDAP.*

## I. INTRODUCTION

Indonesia, as an agricultural nation supporting more than 40 million people through the agricultural sector, faces significant challenges in modernizing its production systems. On the one hand, the national agenda of Making Indonesia 4.0 and the Digital Economy Framework have opened up significant opportunities for strengthening farmer competitiveness through the use of digital technology. However, on the other hand, the digital divide between urban and rural areas remains wide, particularly regarding digital literacy, network infrastructure, and institutional support (Putri & Santosa, 2023). This gap demonstrates that digital transformation in the agricultural sector cannot be equated with mere technology transfer but rather requires an empowerment approach rooted in local social and cultural contexts. This gap is particularly evident in eastern Indonesia, including Sigi Regency, Central Sulawesi Province, which boasts significant agricultural potential but faces limited access to technology and information.

Field studies indicate that most farmers in Sigi still rely on conventional marketing mechanisms through middlemen and local markets, while their ability to use digital platforms to market their products remains limited (Kadir & Djamaluddin, 2024). However, local initiatives are emerging, such as digital literacy training, online media-based marketing assistance, and the use of visual content to promote agricultural products. This phenomenon marks the beginning of a digital empowerment process at the grassroots level, a form of social empowerment that stems from the needs and awareness of farming communities themselves. The following image illustrates the enormous potential of agricultural products, which require fast and widespread access to consumers :

**Fig 1 : Agricultural products in Sigi Regency**

This transformation has implications for the shift in farmer identity, from production actors to digital micro-entrepreneurs who manage their image, networks, and competitiveness in virtual spaces (Yusuf & Mulyani, 2024). Within this framework, digitalization not only increases economic efficiency but also creates new symbolic spaces where farmers negotiate the meaning of independence, empowerment, and

social existence through digital media such as photos, videos, and online narratives (Van der Ploeg & Müller, 2023). Therefore, understanding farmers' digital empowerment cannot be separated from a qualitative perspective that emphasizes subjective experiences, symbolic meanings, and the reflective processes underlying human interactions with technology.

The photo elicitation approach is a relevant methodological strategy for exploring these meanings. According to Harper (2002), photographs can function as visual stimuli that trigger in-depth narratives about participants' lived experiences, presenting emotional and symbolic dimensions often absent from verbal interviews. Rofiah and Widijanto (2024) emphasized that photographs in social research serve as a dialogic medium between researchers and participants, enabling a deeper exploration of meanings regarding farmers' digital experiences, expressions of identity, and social representations. This approach is particularly important in Sigi Regency, where farmers' digital experiences are often intuitive and rooted in local culture.

In addition to socio-digital dynamics, the ecological and economic context of Sigi Regency provides a crucial foundation for understanding the realities of farmer empowerment in the digital era. Based on the Jurisdictional Sustainability Profile of Sigi Regency, compiled by the Environmental Integrity Initiative (EII) and development partners (Condro et al., 2023), approximately 75% of Sigi Regency's territory is forested, encompassing customary forests, forest parks, and conservation areas such as Lore Lindu National Park, a UNESCO biosphere reserve. This area holds strategic ecological value and serves as a living space for farming communities and indigenous peoples spread across 181 villages. Maintaining the local economy supports the community's economy (Idham, 2026).

Economically, the agricultural sector's contribution to Gross Regional Domestic Product (GRDP) reached IDR 6.68 trillion in 2022, with leading commodities such as cocoa (968 kg/ha), robusta coffee (525 kg/ha), arabica coffee (29 kg/ha), vanilla (268 kg/ha), coconut (716 kg/ha), and candlenut (432 kg/ha) (Condro et al., 2023). Regional policies such as Regional Regulation No. 4 of 2019 concerning Green Sigi and Regional Regulation No. 5 of 2021 concerning Environmental Protection and Management Plans demonstrate the regional government's commitment to integrating sustainability principles into agricultural development. Targets include a 2% increase in agricultural GRDP and a 1.45% annual poverty reduction, while maintaining more than 50% of forest area to maintain ecological balance (Condro et al., 2023).

In this context, agricultural digitalization has emerged as a strategic instrument for achieving both economic efficiency and environmental sustainability. According to a 2024 report by Antara News, the Sigi Regency Government has initiated digitalization of agricultural marketing through cross-agency collaboration, particularly the Cooperatives and MSMEs Agency and the Food Crops, Horticulture, and Plantation Agency. This strategy positions the relevant agencies not merely as administrative implementers but as digital intermediaries connecting farmers with online markets and modern retail outlets. This approach represents a shift toward digital governance in regional agribusiness management, where data, platforms, and digital networks become the new foundation for strengthening the local economy.

This effort is reinforced by the launch of the Satu Sigi (One Integrated for Sigi) program in 2025, designed to accelerate agricultural digitalization through an integrated information system (TribunPalu, 2025). The program serves not only as a technological innovation but also as a governance instrument that integrates data on agricultural production, distribution, and marketing within a single regional digital ecosystem. From a development political economy perspective, Satu Sigi marks a shift from administrative bureaucracy to data-driven governance, enabling faster, more efficient, and more accountable decision-making in the agricultural sector.

In addition to government policy interventions, social dynamics are also demonstrating the emergence of new actors in the digital transformation of agriculture, particularly among young farmers. One representative of this phenomenon is Edy Irawan, a young farmer from Kalawara Village, Sigi Regency, who transformed his farming activity from a hobby into a digital-based profession (KBRN Palu, 2024). Through the use of information technology and online networks, he successfully expanded his market reach to Morowali and the Indonesian Capital Region (IKN). He also formed the Kalawara Javanese Millennial Farmers (PMJK) group as a platform for collaboration and digital agricultural innovation.

This story demonstrates a new form of farmer agency in the context of digital transformation—that

independence is no longer solely determined by land ownership and production yields, but also by the ability to manage information, knowledge, and digital networks. This phenomenon confirms that the digital empowerment of farmers in Sigi Regency is not solely the result of top-down structural policies, but also the result of organic and reflective bottom-up cultural initiatives.

Thus, the digital empowerment of farmers in Sigi Regency reflects the dialectical interaction between institutional structures, public policies, and community initiatives, which together shape a growing digital agricultural ecosystem. This process has implications not only for economic efficiency but also for broader social and cultural transformations, where farmers become active subjects in articulating their identity, knowledge, and competitiveness in the digital space. Therefore, this research is important not only for empirically understanding the dynamics of agricultural digitalization but also for examining how technology becomes a new arena for social empowerment and economic independence in the agrarian regions of Eastern Indonesia.

The urgency of this research stems from the urgent need to comprehensively understand the social, cultural, and symbolic dimensions of digital transformation in Indonesia's agricultural sector, particularly among farming communities in eastern regions such as Sigi Regency. To date, discourse on agricultural digitalization has tended to be dominated by a technocratic approach that emphasizes the provision of infrastructure, agricultural applications, and e-commerce systems, while the socio-cultural dimensions that determine the sustainability of technology adoption are often overlooked (Rahman & Singh, 2022). Consequently, many rural digitalization programs stop at the technical implementation stage, without addressing the deeper layers of change in the values, perceptions, and mindsets of farmers as social subjects.

However, as Froggatt (2001) emphasized, technological transformation that is not accompanied by an understanding of the social and cultural context will result in a "meaning gap"—where technology users do not truly internalize its benefits in their daily lives. In the context of Sigi, agricultural digitalization is not just about providing internet connections or digital platforms, but also about building a digital habitus—new social habits, thought patterns, and value orientations that enable farmers to actively adapt to the digital ecosystem.

The literature review shows that the discourse on agricultural digitalization and farmer empowerment is still dominated by technical and economic approaches, while the social, cultural, and symbolic dimensions of digital transformation among smallholder farmers are relatively neglected. These limitations create significant knowledge gaps, both in theory, methodology, and empirical context.

The next gap is methodological. Qualitative literature on farmer digital empowerment in Indonesia largely uses conventional methods such as in-depth interviews, observation, or focus group discussions. While these approaches are capable of capturing participants' verbal perspectives, they are less effective in uncovering layers of emotional and symbolic meaning. In the context of digital transformation, where social experiences are often manifested visually through photos, videos, or online expressions, a purely verbal approach is insufficient to understand the complexity of farmers' experiences.

The main methodological novelty of this research is the integration of a photo elicitation approach with a Manual Data Analysis Procedure (MDAP) in analyzing the meaning of farmers' digital empowerment. The photo elicitation method was used not merely as an interview tool, but as an epistemological instrument to uncover the visual meaning and embodied experiences of farmers regarding digital transformation. Photos serve as a reflective medium through which participants not only describe their experiences but also reinterpret their identities, values, and social relations within the context of the digital economy (Harper, 2002; Rofiah & Widijanto, 2024).

Therefore, this research problem formulation emphasizes the research's orientation, not simply explaining what and how the process of agricultural digitalization occurs, but also why and in what ways digital technology is interpreted and internalized as part of the process of empowering and increasing farmer competitiveness in Sigi Regency.

Based on the theoretical framework of the Digital Empowerment of Farmers Framework (DEFF), a visual-participatory photo elicitation approach, and the regional policy context that encourages agricultural digitalization, three main research questions were formulated as follows:

1. What forms and processes of digital empowerment are experienced by farmers in Sigi Regency in marketing their agricultural products?
2. How do Sigi farmers interpret and express their experiences of digital transformation through visual media (photos)?
3. How does digital empowerment contribute to increasing farmers' social and economic competitiveness, and how does the interaction between government policies, local communities, and digital technology shape this competitiveness?

This research aims to deeply analyze the process, meaning, and social implications of digital empowerment of farmers in the context of agricultural marketing in Sigi Regency, Central Sulawesi. Using a visual and reflective qualitative approach, this research seeks to understand how digitalization becomes an instrument of empowerment, social identity, and increased competitiveness for farmers in an agrarian region transforming into a digital economy ecosystem. More specifically, the objectives of this research include:

1. To describe the forms and dynamics of the digital empowerment process of farmers in Sigi Regency, encompassing aspects of digital literacy, access to technology, and participation in a community-based digital marketing ecosystem.
2. To analyze the social meaning and visual representation of farmers' experiences in the agricultural digitalization process, using photo elicitation methods to interpret the values, symbols, and identities emerging from participants' photo documentation.
3. To assess the contribution of digital empowerment to increasing the economic and social competitiveness of Sigi farmers, by examining the relationship between digital capabilities, local innovation, and market adaptation strategies.

These objectives reflect a research orientation that is not only descriptive, but also analytical and reflective, to understand how digital transformation shapes new economic structures as well as spaces for farmers' social expression. Thus, the research results are expected to broaden theoretical knowledge regarding digital empowerment, while also providing empirical contributions to sustainable agricultural empowerment policies in Sigi Regency and Indonesia's agrarian regions in general.

## II. LITERATURE REVIEW

Digital Empowerment Theory. Digital empowerment theory stems from the fundamental concept that digital technology can be a social instrument to expand the agency, participation, and independence of individuals and communities. In the agricultural context, digital empowerment refers not simply to the use of technological tools, but to how farmers gain the ability to control, interpret, and use technology to improve their well-being and bargaining position within the economic system (Agyekum, Boateng, & Mensah, 2024).

According to Agyekum et al. (2024) in *Computers and Electronics in Agriculture*, digital empowerment is a multidimensional process involving access, literacy, and social participation. In the study, smallholder farmers in Ghana demonstrated increased capacity and empowerment after adopting digital platforms to market their crops and access price information directly. Consequently, increased digital literacy was directly proportional to economic efficiency and increased farmer confidence in business decision-making. Similarly, Chen and Wang (2023) in *Journal of Rural Studies* asserted that digital empowerment is also a socio-cultural process involving the negotiation of identities and values. Digital transformation is changing the way farmers interpret their work, knowledge, and social relations, moving from mere commodity producers to creative economic actors. Therefore, digital empowerment must be understood as a combination of technological mastery and social reflection on the meaning of its use.

Socio-Digital Transformation Theory: Digital social transformation is a theory that explains fundamental changes in the social order resulting from the adoption of digital technology. Van der Ploeg and Müller (2023) in Sociologia Ruralis explain that agricultural digitalization not only changes production techniques but also reconstructs social relations between farmers, markets, and the state. In this process, farmers become part of a dynamic digital ecosystem, where the meaning of empowerment shifts from land ownership to control of information and networks.

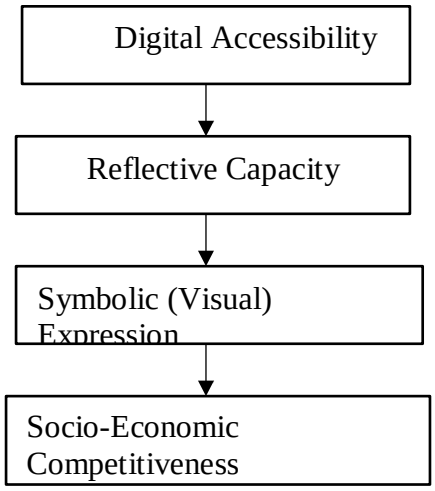
Rahman and Singh (2022) add that these changes are dialectical, meaning that digital technology not

only shapes farmers' behavior but is also influenced by the cultural values and social structures of rural communities. The process of technology adoption is often accompanied by cultural resistance, so the success of digital transformation depends heavily on the alignment between technology and local values.

In the context of Sigi Regency, digital social transformation is evident in the integration of regional policies such as Green Sigi and One Sigi with the participation of young farming communities who utilize technology as a means of strengthening their identity and expressing economic independence. Thus, this theory provides a framework for understanding digitalization not merely as an economic instrument, but as a social movement that renegotiates the relationship between humans, technology, and social space.

The Conceptual Research Model: Digital Empowerment and Farmer Competitiveness in Sigi Regency demonstrates the functional relationship between four main dimensions (digital accessibility, reflective capacity, symbolic expression, and socio-economic competitiveness) with the context of regional policies (One SIGI, Green Sigi) as a reinforcing factor. This model combines the theories of Digital Empowerment (Agyekum et al., 2024), Socio-Digital Identity (Chen & Wang, 2023), and the Photo-Elicitation approach (Harper, 2002; Rofiah & Widijanto, 2024) as the conceptual foundation of the research. Conceptually, the relationships between the elements in this research can be explained through the following model:
Send feedback.

Fig1 Conceptual Research Model: DigitalEmpowerment and Farmer Competitiveness in Sigi Regency




*Sumber: Sintesis peneliti berdasarkan Agyekum et al. (2024) [World Development, DOI:10.1016/j.worlddev.2023.106453]; Chen & Wang (2023) Information, Communication & Society, DOI:10.1080/1369118X.2021.2006834]; Harper (2002) [Visual Studies, DOI:10.1080/14725860220137345]; Rofiah & Widijanto (2024) [Jurnal Ilmu Komunikasi, DOI:10.31289/jik.v21i1.8967]; Tandi & Simanjuntak (2023) [Asian Journal of Agriculture and Development, DOI:10.37801/ajad2023.20.2.4]; Adegbite & Nwosu (2021) [Technological Forecasting and Social Change, DOI:10.1016/j.techfore.2021.120726]; Condro et al. (2023) [The State of Jurisdictional Sustainability, DOI:10.46587/EII.SJS.2023.SIGI].*

The interaction of these four dimensions forms a continuous circle of digital empowerment, where increasing farmers' digital capacity not only creates economic efficiency but also strengthens social independence, pride in identity, and community-based agricultural sustainability. Thus, the DEFF conceptual framework not only illustrates the relationships between variables but also affirms the research's theoretical position as a reflective socio-digital study, which makes farmers not merely objects of digitalization policies but active subjects of social and cultural transformation.

## III. METHODS

Research Type and Approach: This research falls into the interpretive-phenomenological qualitative category. Its primary focus is to uncover the social meaning of farmers' digital experiences in Sigi Regency through exploring visual artifacts available in digital public spaces. Cyberphenomenology enables

researchers to:

1. Observe social consciousness and experiences manifested through digital uploads.
2. Interpret farmers' self-representations and social identities through visuals, and
3. Understand the relationship between digital expression and socio-economic competitiveness in a local context.

This approach also rejects the positivist assumption that data must be obtained through direct contact. Instead, human experiences are understood through technological mediation (Coleman, 2022), where meaning emerges from digital symbols, texts, and visuals constructed by social subjects. Research Location and Cyberspace: The research space encompasses the digital realm (cyberspace) that represents the social activities of farmers in Sigi Regency, Central Sulawesi.

The platforms analyzed include:

1. Instagram: A public account of a young farmer showcasing digital marketing practices.
2. Facebook: young farmer communities such as Petani Muda Coba-Coba, which actively share training activities and promote local products.
3. TikTok: a digital agriculture-themed public account in Central Sulawesi that showcases farmers' harvesting processes, promotions, and creative content.
4. Online news: trusted sources such as Antara News (2024) and Tribun Palu (2025), which feature Satu Sigi activities as part of an effort to digitize regional agriculture.

This digital space is treated as a phenomenological setting where visual and narrative data are collected, interpreted, and connected to the social context of Sigi farmers. This study uses observational photo elicitation as the primary strategy in examining the social experiences of Sigi farmers in the digital space. This approach is an extension of the classic photo elicitation technique proposed by Harper (2002), where photos serve as triggers for dialogue or in-depth reflection on participants' lived experiences. However, unlike participatory elicitation, this study positions photos as objects of interpretive observation, rather than as tools for direct interviews.

In the context of this research, photographs circulating in digital public spaces (such as news portals, official government social media, and online farmer communities) are treated as social visual artifacts. These artifacts contain symbolic meanings, cultural expressions, and representations of identity that can be analyzed in depth without the need for active participation by the photo subjects. This approach aligns with the view of Banks & Zeitlyn (2015), who stated that photo analysis can be conducted non-reactively, that is, without influencing or interacting with the photo creator, as long as the social and cultural context is carefully interpreted.

This observational photo elicitation approach is relevant because the research is conducted in an open and dynamic digital space. According to Rofiah (2024), in the context of cyber-phenomenology, social media is a "digital consciousness space" where humans project their existence through visual images. Thus, publicly uploaded photos reflect existential and symbolic narratives, which can be analyzed to understand how farmers construct meanings of empowerment, independence, and social identity in the digital era.

## IV. ANALYSIS AND DISCULSSION

This chapter integrates field findings obtained through the photo elicitation and manual analysis (MDAP) approach with the theoretical framework outlined in Chapter II, specifically the Digital Empowerment of Farmers Framework (DEFF), Socio-Digital Identity Theory, and the Rural Competitiveness Framework. The aim is to more deeply interpret the meaning of digital empowerment experienced by farmers in Sigi Regency and explain how this process shapes social transformation, digital identity, and economic competitiveness at the micro-level.

This discussion begins with the understanding that digitalization in the agricultural sector is not only a technological change, but also a change in farmers' being and becoming, namely how they interpret,

negotiate, and represent themselves in the digital ecosystem (Chen & Wang, 2023). In this context, the research findings indicate that the digital empowerment of Sigi farmers is a multidimensional process involving simultaneous economic, social, and cultural transformations.

Field findings indicate that farmers in Sigi Regency are beginning to internalize the meaning of digitalization not just as a tool, but as a practical space for building digital agency, namely the awareness and ability to independently direct their economic lives through technology. Digital empowerment in Sigi demonstrates three forms of actualization relevant to the main components of DEFF:

Digital Access and Participation: Farmers in Sigi are beginning to use social media and digital networks (such as WhatsApp, local Facebook, and farmer community channels) to share market and price information. This practice demonstrates the realization of the access dimension within DEFF, namely active engagement in the digital ecosystem that increases the efficiency of market information (Adegbite & Nwosu, 2021). This access is not only technical but also social, as it occurs through networks of trust and solidarity among farmers.

Digital Capability and Knowledge: Farmers' digital capabilities are improving through training and hands-on practice, such as using local marketplaces and creating harvest photo content. This demonstrates that digital literacy is growing alongside local social and cultural capital. In the terminology of Agyekum et al. (2024), this is a manifestation of knowledge empowerment, namely increasing cognitive and reflective capacity regarding the role of technology in transforming one's own economic destiny.

Agency and Autonomy: At this point, farmers demonstrate the ability to make independent economic decisions. The narrative of Edy Irawan, a young farmer from Kalawara who successfully penetrated the Morowali and IKN markets (RRI Palu, 2024), provides empirical evidence of digital agency developing through social learning processes. In the context of DEFF, this illustrates autonomy empowerment, namely the individual's ability to manage digital knowledge-based businesses and reduce dependence on conventional economic structures. Thus, digital empowerment in the Sigi case broadens the scope of DEFF by incorporating symbolic and visual aspects (through photographs and digital representations) that have not previously been widely articulated in digital agriculture studies. These findings confirm that digitalization not only increases economic access but also creates a new identity that affirms farmers' independence, professionalism, and social empowerment.

Hermeneutic Discussion: Social Identity and Farmers' Digital Agency. The phenomenological-hermeneutic approach in this study allows for interpretation of the subjective meanings behind farmers' digital experiences. Based on photo elicitation results, photographs collected from social media and public documentation reveal three intertwined layers of identity:

Traditional Identity (Agrarian Self): Photos depicting farmers with their land, crops, and agricultural tools reflect a strong agrarian identity. However, when these photographs are uploaded to the digital space, their meaning shifts: from mere documentation to an existential statement that "we are present in the digital space." This confirms Chen & Wang's (2023) findings that visual representations on social media serve as symbols of resistance against economic marginalization.

Transitional Identity (Hybrid Self) In many posts, young farmers are seen posing with their phones, photographing their harvests, or uploading educational content. These visuals demonstrate the process of identity transition: from conventional farmers to digital hybrid farmers living in two worlds—the land world and the network world. This aligns with Van der Ploeg & Müller's (2023) idea that modern farmers are no longer simply producers, but rather cultural producers who shape a new image of agriculture.

Digital Identity (Socio-Digital Self) This identity emerges when farmers begin to use digital spaces as an arena for self-representation. They define success not only in terms of harvest yields, but also in terms of the number of interactions and social recognition on digital media. In a phenomenological context, this constitutes a form of existential rearticulation—a redefinition of farmer existence in the digital era (Rofiah & Widijanto, 2024).

Through a hermeneutic framework, this process can be interpreted as a consciousness journey: from practical awareness, to reflective awareness, to transcendental awareness, as shown in Table 4.10 above. Thus, digital empowerment is not only an economic transformation, but also a transformation of being, shifting the way farmers understand themselves and their world.

Methodological Discussion: Integrating Photo Elicitation and MDAP in Cyber-Phenomenology. This research confirms the methodological strength of integrating photo elicitation and the Manual Data Analysis Procedure (MDAP) in the context of cyber-phenomenology. This approach allows researchers to analyze not only words but also images, narratives, and symbols contained in digital representations of farmers. First, photo elicitation functions as a dialogical medium that opens up interpretation for participants through visual imagery. Although this research data was obtained from social media, the elicitation approach remains relevant because it positions photos as proxies of experience (Harper, 2002). In a digital context, uploaded photos become a form of social communication equivalent to verbal statements. Second, MDAP provides depth of analysis through reflective note-taking and manual categorization. Unlike qualitative software based on automatic coding, MDAP allows researchers to develop interpretive intimacy with the data, namely emotional and cognitive engagement that sharpens phenomenological meaning (Rofiah & Bungin, 2024).

This process also emphasizes the researcher's reflexive positionality, stating that every interpretation is the result of an interaction between the researcher, the context, and the visual text. Third, this method integration strengthens the cyber-phenomenological approach, which is the study of human experiences in digital spaces (Baym, 2023). By combining online data (social media) and reflective analysis, this study is able to uncover the dimensions of farmers' digital consciousness without having to directly confirm with informants, as the data used is naturally occurring digital content (Hine, 2022).

However, validity is maintained through cross-platform triangulation and literature confirmation, rather than traditional member checking. Thus, the integration of photo elicitation and MDAP produces a reflective-interpretive methodology that can be adopted by other social researchers to explore visual phenomena in digital spaces, particularly in the context of empowerment and social transformation. Theoretically, this study expands the understanding of the Digital Empowerment of Farmers Framework (DEFF) by adding visual and cultural dimensions to the model. While the DEFF previously emphasized aspects of access, capability, and autonomy (Agyekum et al., 2024), this study adds two new dimensions, Send feedback :

1. Representational Dimension (Visual Expression) – digital technology is not only a sales tool, but also a means of self-representation for farmers as modern social actors.
2. Existential Dimension (Cultural Empowerment) – digital empowerment in Sigi has become an arena for redefining farmer values and identities within the context of local culture.

This addition enriches digital empowerment theory by incorporating semiotic and phenomenological aspects, rarely explored in studies of the rural digital economy. This research demonstrates that a visual-participatory approach can be validly applied even in the context of secondary digital data. The combination of photo elicitation and MDAP allows for in-depth interpretation without losing the socio-cultural context of the data. Furthermore, this research confirms that cyber-phenomenology can become a new paradigm in digital social research in Indonesia—an approach that combines humanistic interpretation with digital technology. From a practical perspective, the results of this study offer three policy directions that can be implemented by local governments and empowerment institutions:

1. Strengthening Participatory Digital Literacy: The Sigi Regency Government needs to expand community-based digital training programs (such as Satu Sigi) with a reflective approach, not just a technical one. Digital literacy should encompass narrative and visual skills so that farmers can package their products and identities attractively in the digital space.
2. Development of an Integrated Digital Marketing Ecosystem: Integration between MSMEs, farmer groups, and online platforms is needed to make the digital value chain more efficient. This collaborative

approach aligns with the multi-stakeholder governance outlined by Van der Ploeg & Müller (2023).

3. Strengthening the Social Identity of Digital Farmers: The government and educational institutions (such as Tadulako University) can facilitate digital showrooms or rural creative hubs as a platform for young farmers to showcase their visual works and agribusiness innovations.

This will strengthen professional pride and expand competitiveness in the symbolic realm. The discussion in this chapter emphasizes that the digital empowerment of Sigi farmers is a transformative process that transcends the economic dimension. It is an existential journey from agrarian being to digital becoming, where technology becomes a medium for social liberation and identity reconstruction. Within the Digital Empowerment of Farmers Framework (DEFF), this transformation emphasizes the interconnectedness of access, capability, agency, and meaning. Farmers are no longer simply beneficiaries of technology, but rather subjects negotiating their existence and constructing their own digital space. Conceptually, this study positions digital empowerment as part of the socio-digital transformation in Eastern Indonesia, a model in which technological innovation, cultural values, and social awareness combine to form a new competitiveness based on independence and creativity.

Thus, this study makes a significant contribution to the development of applied social sciences, particularly in the context of sustainable development, social management, and the rural digital economy. Theoretical Discussion: Digital Empowerment of Farmers Framework (DEFF) The Digital Empowerment of Farmers Framework (DEFF), as explained by Agyekum et al. (2024) and expanded by Yusuf & Mulyani (2024), views digital empowerment as a social process that enables farmers to access, control, and utilize technology to strengthen their economic and social bargaining position. This study concludes that digital empowerment of farmers in Sigi Regency is a multidimensional social transformation process, encompassing economic, social, cultural, and existential dimensions. Digitalization is not only a technological phenomenon, but also a new form of social relations and agrarian consciousness that connects tradition with modernity. Some of the main conclusions drawn are as follows:

1. Social Transformation and Digital Agency: Sigi Farmers demonstrate adaptive capacity to changes in social structures through the use of digital media. Digital agency evolves from instrumental awareness to reflective awareness; farmers are not simply users of technology, but rather subjects who interpret and direct the use of technology to strengthen their existence as modern economic actors.
2. Economic Reform and Micro-Competitiveness The integration of digital media into the agricultu ral value chain has shortened distribution channels and increased marketing efficiency. Farmers gain economic autonomy through a digital micro-entrepreneurship model, where the ability to innovate and promote products is a key factor in increasing competitiveness.
3. Cultural Dimensions and Visualization of Identity: Visual representations on social media have become a new means for farmers to negotiate their professional identity and meaning. Photos and digital content serve as modes.

## REFERENCES

[1]. Adegbite, O., & Nwosu, C. (2021). Digital transformation and agricultural value chains in Sub-Saharan Africa: A socio-economic reappraisal. Technological Forecasting and Social Change, 167, 120726. https://doi.org/10.1016/j.techfore.2021.120726

[2]. Agyekum, K., Mensah, E., & Asiedu, K. (2024). Digital empowerment and rural innovation among smallholder farmers in emerging economies: Towards inclusive agri-tech ecosystems. World Development, 174, 106453. https://doi.org/10.1016/j.worlddev.2023.106453

[3]. Between Central Sulawesi. (2024, May 6). Sigi Regency Government facilitates digital-based marketing of agricultural products. Antara News Central Sulawesi. https://sulteng.antaranews.com/berita/242797/pemkab-sigi-facilitation-pemasaran-hasil-pertanian-berbasis-digital

[4]. Banks, M., & Zeitlyn, D. (2015). Visual Methods in Social Research (2nd ed.). Sage Publications.

https://doi.org/10.4135/9781473914321

[5]. Chen, L., & Wang, X. (2023). Socio-digital identity and adaptive transformation in rural e-commerce: A qualitative analysis of farmers' online practices in China. Information, Communication & Society, 26(6), 885–902. https://doi.org/10.1080/1369118X.2021.2006834

[6]. Condro, S. S., Rahmah, S., Sadiyah, M., Irjik, D., Endrawati, D., Nurhidayat, D., ... & Hapsari, N. (2023). Sigi District, Central Sulawesi, Indonesia. In C. Stickler et al. (Eds.), The State of Jurisdictional Sustainability. Environmental Integrity Initiative (EII). https://doi.org/10.46587/EII.SJS.2023.SIGI

[7]. Finlay, L. (2021). Reflecting on reflexive qualitative research: A critical guide. Qualitative Research, 21(4), 489–507. https://doi.org/10.1177/1468794121990912

[8]. Harper, D. (2002). Talking about pictures: A case for photo elicitation.Visual Studies, 17(1), 13–26. https://doi.org/10.1080/14725860220137345

[9]. Kadir, A., & Djamaluddin, M. (2024). Digital literacy and agricultural marketing transformation among rural farmers in Central Sulawesi, Indonesia. ***Journal of Rural Studies***, 104, 103111. https://doi.org/10.1016/j.jrurstud.2023.103111

[10]. Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic Inquiry. Sage

[11]. Publications. https://doi.org/10.1016/0147-1767(85)90062-8

[12]. Markham, A. (2018). Critical perspectives on ethics in digital ethnography. Media, Culture & Society, 40(1), 136–150. https://doi.org/10.1177/0163443717705004

[13]. Porter, M. E. (1990). The Competitive Advantage of Nations. Free Press. https://doi.org/10.1007/978-1-349-11336-1

[14]. Putri, D. A., & Santosa, R. (2023). Bridging the digital divide in rural Indonesia: The role of community-based empowerment and digital inclusion. Information Development, 39(3), 421–437. https://doi.org/10.1177/02666669211051193

[15]. 14. Rahman, M., & Singh, P. (2022). Technology adoption, digital literacy, and rural livelihoods: Challenges and pathways in developing economies. Technology in Society, 70, 102028.https://doi.org/10.1016/j.techsoc.2022.102028Send feedback.