



Rural economic resilience: Empowering Pattiro Deceng MSMEs through strategic management, financial literacy, and digital adoption

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Abstract

Village economic empowerment is an important strategy in improving community welfare and strengthening local economic resilience through the optimization of regional potential. However, most MSME actors in rural areas still face various constraints, such as low managerial capacity, financial literacy, product innovation, and digital marketing utilization. This community service activity aims to strengthen the capacity of MSME actors in Pattiro Deceng Village, Maros Regency, through participatory training and assistance focusing on business management, simple financial management, product innovation, and the utilization of digital marketing. This program uses a participatory-educational approach through observation, interviews, workshops, direct assistance, and evaluation using a pre-test and post-test. The results of the activity showed a significant increase in the competence of participants after the program was implemented. Entrepreneurship understanding increased from 40% to 85%, while financial literacy and digital marketing capability also experienced a fairly significant increase. In addition, the number of MSMEs utilizing digital marketing platforms increased from 15% to 45% after the activity took place. These findings indicate that a participatory-based and hands-on practice empowerment approach is effective in improving MSME capacity, driving digital business transformation, and strengthening sustainable village economic development.

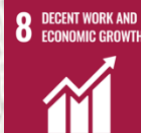
Keywords: Village economic empowerment; MSMEs; Digital marketing; Financial literacy

Resiliensi ekonomi perdesaan: Pemberdayaan UMKM Desa Pattiro Deceng melalui tata kelola usaha, literasi keuangan, dan adopsi digital

Abstrak

Pemberdayaan ekonomi desa merupakan strategi penting dalam meningkatkan kesejahteraan masyarakat dan memperkuat ketahanan ekonomi lokal melalui optimalisasi potensi daerah. Namun, sebagian besar pelaku UMKM di wilayah pedesaan masih menghadapi berbagai keterbatasan, seperti rendahnya kapasitas manajerial, literasi keuangan, inovasi produk, serta pemanfaatan digital marketing. Kegiatan pengabdian kepada masyarakat ini bertujuan untuk memperkuat kapasitas pelaku UMKM di Desa Pattiro Deceng, Kabupaten Maros, melalui pelatihan dan pendampingan partisipatif yang berfokus pada manajemen usaha, pengelolaan keuangan sederhana, inovasi produk, dan pemanfaatan pemasaran digital. Program ini menggunakan pendekatan partisipatif-edukatif melalui observasi, wawancara, workshop, pendampingan langsung, serta evaluasi menggunakan pre-test dan post-test. Hasil kegiatan menunjukkan adanya peningkatan signifikan pada kompetensi

Contributions to
SDGs



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peserta setelah program dilaksanakan. Pemahaman kewirausahaan meningkat dari 40% menjadi 85%, sementara literasi keuangan dan kemampuan digital marketing juga mengalami peningkatan yang cukup signifikan. Selain itu, jumlah UMKM yang memanfaatkan platform digital marketing meningkat dari 15% menjadi 45% setelah kegiatan berlangsung. Temuan ini menunjukkan bahwa pendekatan pemberdayaan berbasis partisipatif dan praktik langsung efektif dalam meningkatkan kapasitas UMKM, mendorong transformasi bisnis digital, serta memperkuat pembangunan ekonomi desa yang berkelanjutan.

Kata Kunci: Pemberdayaan ekonomi desa; UMKM; Pemasaran digital; Literasi keuangan

1. Introduction

Village economic empowerment is one of the strategic agendas in sustainable development that aims to reduce regional disparities, improve community welfare, and strengthen local economic independence. In the global context, Micro, Small, and Medium Enterprises (MSMEs) are recognized as the backbone of the economy, especially in developing countries, because of their contribution to job creation and increasing people's incomes ([Mansuri & Rao, 2013](#)).

In Indonesia, the role of MSMEs is very dominant in the national economic structure. Data from the Ministry of Cooperatives and Small and Medium Enterprises shows that MSMEs number more than 65 million business units and contribute around 60 percent to the Gross Domestic Product. However, most MSMEs, especially those in rural areas, still face fundamental problems such as limited managerial capacity, low financial literacy, lack of product innovation, and not optimal use of digital technology in marketing and business management ([OECD, 2019](#)).

Various studies indexed by Scopus show that strengthening the capacity of MSMEs through business management training, financial assistance, and digital marketing adoption has a positive effect on improving business performance and community economic sustainability. Digital marketing has been proven to be able to expand the MSME market reach, increase the efficiency of promotion costs, and strengthen the competitiveness of local products, including in areas with limited conventional market access ([Taiminen & Karjaluoto, 2015](#)).

In line with the findings of the study, community service articles published in the journal *Community Empowerment* over the past three years confirm that the success of MSME empowerment programs is highly determined by the suitability of interventions with local needs, active community involvement, and sustainability of post-activity assistance ([Hasanah et al., 2023](#); [Kemuning et al., 2025](#)). Service programs that are only socialized without capacity building and continuous evaluation tend to produce limited and unsustainable impacts ([Habibi et al., 2024](#)).

Pattiro Dedeng Village, Camba District, Maros Regency, is one of the rural areas that has considerable local economic potential, especially in the household-based micro business sector. Based on data from the Village Government and the results of initial observations, there are around 40 MSME actors engaged in processed food, handicrafts, and simple service businesses. However, the results of interviews with MSME actors and village officials show that most businesses are still managed traditionally, do not have financial books separate from personal finances, and have not yet utilized digital media as a

means of marketing. Product sales are still limited to the area around the village and depend on informal marketing networks ([Mangawing et al., 2023](#)).

This condition shows that there is a gap between the economic potential of the village and the actual capacity of MSME actors in managing and developing their businesses in a sustainable manner. If not handled systematically, these limitations have the potential to hinder village economic growth and increase the economic vulnerability of the community ([OECD, 2019](#)). On the other hand, various research results and best practices for MSME empowerment produced by universities have not been fully downstreamed to the village level.

Based on these problems, this community service activity aims to strengthen the capacity of MSME actors in Pattiro Deceng Village through business management training, simple financial management, the use of digital marketing, and the development of local product innovations. This program is designed with a participatory and scientific evidence-based approach as a form of downstreaming research results into community empowerment practices. It is hoped that this activity can increase the economic independence of MSME actors and encourage sustainable village economic development ([Hasyim & Bakri, 2025](#)).

2. Method

The method of implementing this community service activity is prepared descriptively to provide a comprehensive overview of the approaches, stages of activities, and evaluation techniques used in empowering Micro, Small, and Medium Enterprises (MSMEs) in Pattiro Dekeng Village, Camba District, Maros Regency. This method adapts the participatory educational approach as widely used in community service articles in the journal *Community Empowerment*, especially in empowerment programs based on capacity building and business literacy. This community service activity was conducted from July-September 2025.

This service activity uses a participatory-educational approach, which emphasizes the active involvement of partners in all stages of the activity, from identifying problems to evaluating program results. The participatory approach was chosen because it has proven to be effective in increasing the relevance of the program to the needs of the community and strengthening the sustainability of the impact of community service activities ([Chambers, 2017](#)).

The design of service activities integrates training, mentoring, and practice-based evaluation (learning by doing), so that participants not only receive the material theoretically, but also directly apply the knowledge gained in the context of the business being run. This approach is in line with the community empowerment model that emphasizes reflective and applicative learning processes ([Kolb, 2015](#)).

The service activity was carried out in Pattiro Deceng Village, Camba District, Maros Regency, involving 40 MSME actors as the main participants. Participants were selected based on the following criteria: (1) actively running micro or small businesses, (2) domiciled in the village area, and (3) willing to participate in the entire series of service activities. In addition to MSME actors, this activity also involves the village government, lecturers, and students as field assistants to strengthen the knowledge transfer process

and mentoring. The implementation of service activities is carried out through several main stages, namely:

2.1. Socialization and identification of needs

The initial stage is carried out through program socialization and discussions with MSME actors and village officials to identify the main problems faced by partners. Group discussion and interview techniques are used to explore the real needs of business actors, as recommended in the needs-based community development approach (Green & Haines, 2016).

2.2. Training and workshops

The training phase is focused on entrepreneurial capacity building, simple financial management, product innovation, and digital marketing. The training method uses a combination of interactive lectures, discussions, case studies, and hands-on practice so that participants can understand and apply the material effectively.

2.3. Business assistance

Mentoring is carried out directly and continuously during the activity to ensure that participants are able to apply the knowledge gained. Mentoring plays an important role in bridging the gap between knowledge and business practices, especially in rural MSMEs (Nurcholis et al., 2023).

2.4. Monitoring and evaluation

Monitoring was carried out during and after the activity through observation, brief interviews, and filling out questionnaires. Evaluation of the results of the activity was carried out by comparing the results of the pre-test and post-test to measure the improvement of participants' competencies quantitatively, as well as qualitative evaluation through reflection and feedback of participants (Patton, 2015).

Data in this service activity was collected using several techniques, namely: (1) pre-test and post-test questionnaires to measure the improvement of participants' knowledge and skills; (2) participatory observation to assess the involvement and application of the material by participants; and (3) semi-structured interviews to explore participants' experiences and perceptions of the benefits of the activity. Data analysis was carried out in a quantitative descriptive manner to calculate the percentage increase in participants' competencies, as well as qualitative descriptive to interpret field findings and participants' experiences. This approach is commonly used in program evaluation-based research and service because it is able to provide a comprehensive overview of the impact of activities (Creswell, 2009).

3. Results and Discussion

The community service activities carried out in Pattiro Deceng Village aim to increase the capacity of MSMEs through a participatory training, mentoring, and evaluation approach (Audretsch et al., 2019).

3.1. Socialization and identification of needs

The initial stage of the community service program was conducted through socialization and identification of the needs of MSME actors in Pattiro Deceng Village. This activity involved the village government, MSME actors, lecturers, and students as facilitators.

The socialization process aimed to introduce the objectives of the program, identify the main challenges faced by MSMEs, and encourage active participant involvement throughout the activity.

During the discussion sessions, participants actively expressed several problems experienced in managing their businesses, including limited managerial knowledge, lack of proper financial records, difficulties in expanding market access, and limited understanding of digital marketing platforms. Most participants explained that their businesses were still managed conventionally and depended mainly on direct selling and informal customer networks.

The participants responded positively to the activity because the material discussed was considered highly relevant to their business conditions. Several participants stated that this was their first opportunity to receive structured training related to digital marketing and financial management. The participatory discussion process created interactive communication between the service team and the participants, enabling the program to align with the actual needs of the community.

The results of the evaluation showed significant improvements in participants' competencies after participating in the [Table 1](#). Entrepreneurial understanding increased from 40% to 85%, financial literacy improved substantially, and digital marketing understanding also increased after the training process.

Table 1. Improvement of Participants' Competencies Before and After the Program

Indicator	Before (%)	After (%)	Increase
Entrepreneurial Understanding	40	85	45 %
Financial Literacy	40	90	50 %
Digital Marketing Skills	35	85	50 %
Product Innovation Capability	38	88	50 %

These findings indicate that the participatory training and empowerment approach effectively improved the competencies of MSME actors ([Lusardi & Mitchell, 2014](#)). This finding is in line with the study of [Kraus et al \(2018\)](#), which states that experiential learning can improve the readiness of MSMEs in adopting innovation and strengthening business management capacity.

3.2. Training and workshops

The training and workshop activities focused on improving entrepreneurial skills, financial literacy, product innovation, and digital marketing. The activities were conducted through lectures, discussions, case studies, and direct practice sessions. During the digital marketing training, participants were guided to create business accounts using platforms such as WhatsApp Business, Facebook Marketplace, and Instagram. Participants also practiced creating promotional content and simple branding strategies for their products.

Participants showed enthusiastic responses during the workshops. Many participants actively asked questions about online promotion, attracting customers, and increasing sales through digital media. They stated that the direct practice method made the material easier to understand than theoretical explanations alone. To support the evaluation results, participant scores were analyzed individually.

Figure 1 presents a comparison of the pre-test and post-test scores of each participant of the activity. The graph shows that all participants experienced an increase in scores after the activity, with a relatively even pattern of increases. This pattern shows that competency improvement does not only occur in a small number of participants, but includes all MSME actors involved in the program. Thus, this service program is not only effective on average, but also inclusive in reaching all participants. This individual-based evaluation approach is also used in various service articles published in the journal *Community Empowerment* to show the equitable distribution of the impact of activities (Rahman, 2023).

In addition to individual analysis, the improvement in participant competence was also shown through a comparison of the average pre-test and post-test scores as shown in Figure 2. The average pre-test score of 41.8 participants increased to 84.1 in the post-test, which means an increase of 102.22%. This spike in scores shows that the training materials and learning methods applied are able to significantly improve participants' understanding in a relatively short time. These results reinforce the findings of research by Taiminen & Karjaluoto (2015) and Bongomin et al. (2017) which stated that increasing business literacy and digital literacy through structured training has a direct effect on the readiness of MSMEs in developing businesses and expanding market access (Bruce et al., 2023).

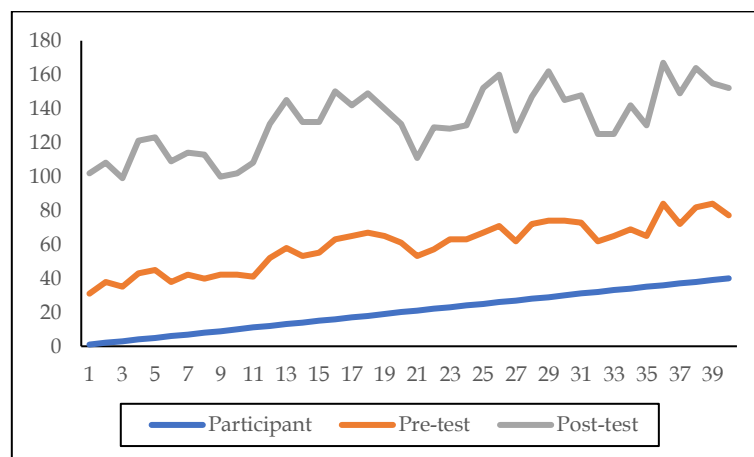


Figure 1. Comparison chart of pre-test and post-test scores per participant

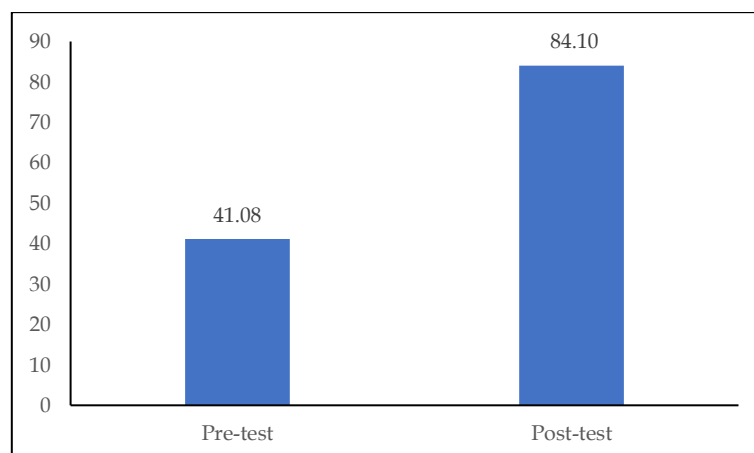


Figure 2. Average pre-test scores of participants

3.3. Business assistance

The level of participation of participants during service activities is very high. Based on Figure 3, the attendance rate of participants at each stage of the activity reached an average of 90%. This high level of participation shows that the service program is relevant to the needs of the community and is able to encourage active involvement of participants (Cornwall, 2016).

The participatory approach applied allows for two-way interaction between the service team and participants, so that the material presented can be adjusted to the real conditions and problems faced by MSME actors. Mansuri & Rao (2013) emphasized that active community participation is a key factor in the success of empowerment programs because it encourages a sustainable learning process and increases a sense of belonging to the program.

3.4. Data collection and analysis techniques

Figure 3 shows the achievements of the community service program before and after the implementation of the activities. The graph indicates significant improvements in several indicators, including digital account ownership, knowledge improvement, and business interactions or transactions among MSME participants.

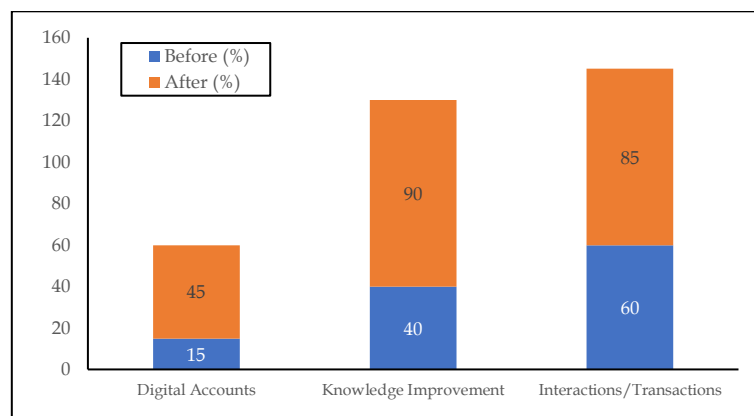


Figure 3. Achievements of the service program

The percentage of MSMEs using digital marketing accounts increased from 15% before the program to 45% after the training and mentoring activities (Anggraini et al., 2023). In addition, participants' knowledge and business understanding also improved significantly after participating in the workshops and mentoring sessions. Business interactions and transactions among participants also showed positive growth after the adoption of digital marketing practices (Sangapana et al., 2025).

These findings indicate that the service program not only improved participant knowledge and skills, but also encouraged practical changes in business activities and marketing practices. Participants responded positively to the activities because the training materials and mentoring process were directly related to their business needs. The increase in participant competence and digital adoption supports the findings of Bongomin (2017), which state that financial literacy, mentoring, and digital technology adoption can improve MSME performance, especially in rural areas (Pollák & Markovič, 2021).

To ensure the validity of the findings, data triangulation was conducted by combining quantitative data from pre-test and post-test results, qualitative interviews, and direct

observations during mentoring activities. This approach strengthens the reliability of the findings and minimizes bias from single-source data. As a complement to the analysis, [Figure 4](#) presents documentation of socialization, training, and assistance activities for MSMEs in Pattiro Deceng Village. This documentation shows the active involvement of participants and collaboration between the service team, the village government, and the community in every stage of the activity. This visual documentation reinforces the validity of the service process and shows that the results achieved are a consequence of a structured and participatory empowerment process, not just a momentary outcome ([Sharabati et al., 2024](#)).



Figure 4. Socialization activities and delivery of MSME empowerment materials at the Pattiro Deceng Village Office

4. Conclusion

The community service program carried out in Pattiro Deceng Village, Camba District, Maros Regency, effectively strengthened the capacity and independence of Micro, Small, and Medium Enterprises (MSMEs). Evaluation using pre-test and post-test scores, interviews, and direct observation confirmed measurable gains across the four target areas: entrepreneurship, financial literacy, product innovation, and digital marketing.

The clearest achievement was the improvement in participant competence. The average score rose from 41.8 in the pre-test to 84.1 in the post-test, an increase of 102.22 percent, and this gain was distributed evenly across all participants rather than concentrated in a few. Entrepreneurial understanding increased from 40 percent to 85 percent, while financial literacy and digital marketing skills also improved substantially, showing that the hands-on, learning-by-doing approach was both effective and inclusive in reaching every participant.

All program success indicators were achieved, and several exceeded their targets. Adoption of digital marketing platforms among MSMEs increased from 15 percent to 45 percent, average participant attendance reached 90 percent across every stage of the activity, and business interactions and transactions grew once participants began applying digital marketing practices. The average turnover of participating MSMEs also rose, indicating a direct economic impact and concrete changes in day-to-day business practices rather than gains in knowledge alone.

To sustain and extend these results, follow-up mentoring should be continued, particularly in advanced digital marketing, product branding, and business financial management, and cooperation between village MSMEs and local governments, financial institutions, and the private sector should be strengthened to widen access to capital and markets. The training-and-mentoring model can also be replicated in other villages with similar characteristics, adjusted to local potential and community needs, while future activities should incorporate long-term evaluation methods so that the sustained impact of the program on business growth and community welfare can be measured more comprehensively.

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Author Contribution

Conceptualization and activity design: NR, A; Implementation of activities: NR, A, H; Data analysis: NR, A; Manuscript preparation: NR; Manuscript revision: All authors.

Conflict of Interest

The authors state that there is no conflict of interest in the publication of this article.

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