Pena Dimas Vol. 4 No 2, Page. 197-216
DOI : http://dx.doi.org/10.33474/penadimas.v4i2.30171 **e-ISSN :** 2964-7789

An Integrated Three Pillar Experiential Learning Model for Post Crisis MSME Recovery: Digital Marketing, Accounting, and Sharia Financing Access

Martha Laila Arisandra[1]*, Emmanuel Imuede Oyasor[2], Siti Shoimah[3], Thoifatul Munawaroh[4], Tiara Eka Putri[5]

[1, 3] Department of Management, Faculty of Economics and Business, Darul Ulum Islamic University, East Java, Indonesia
[2] Department of Accounting Science, Walter Sisulu University, Mthatha, South Africa
[4, 5] Bachelor of Islamic Economics, Undergraduate Program, Darul Ulum Islamic University, East Java, Indonesia
Corresponding Author's Email Address: martha_la@unisda.ac.id

Article Information

Article History:
Accepted: 03/02/2026
Reviewed: 06/02/2026
Revised: 03/03/2026
Accepted: 31/03/2026

Keywords:
Digital marketing;
Financial management;
MSMEs;
Post-crisis recovery;
Sharia financing

Abstract

This community service program aims to address the multidimensional challenges faced by Lasem Batik MSMEs post-crisis, characterized by a >50% decline in turnover (70% of partners), disorganized financial records (85%), and limited access to capital (75%). Designed with an integrated three-pillar approach, digital marketing, accounting, and access to Islamic financing, the program was implemented for six months (July–December 2025) using Participatory Action Research and Experiential Learning methods. These methods were implemented through direct training, individual mentoring, and networking with Islamic financial institutions. Evaluation results showed significant transformation. Active digital marketing adoption increased from 20% to 90%, formal bookkeeping implementation from 12% to 90%, and access to Islamic financing increased by 500% (10 partners successfully obtained financing totaling IDR 185 million). Statistical analysis confirmed an increase in average monthly turnover from IDR 3.2 million to IDR 7.1 million (p-value = 0.0001). This success was driven by synergy between pillars: digital sales generated data for bookkeeping, regular financial reporting opened access to Sharia-compliant capital, and this capital was used to drive business growth. In conclusion, the integrative and participatory mentoring model was effective in building a resilient business cycle for MSMEs post-crisis. Its main limitations lie in its inclusiveness for digitally illiterate MSMEs and the depth of implementation of Sharia principles. Key recommendations for replication and sustainability include the implementation of a Training of Trainers (ToT) model, the development of inclusive modules, and long-term monitoring (12 months). This program directly contributes to the achievement of SDGs 8 (Decent Work and Economic Growth) and 9 (Industry, Innovation, and Infrastructure).

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) have consistently been a fundamental pillar of the Indonesian economy (Fathoni & Asfiah, 2024). Data from the Ministry of Cooperatives and SMEs (2023) shows that the number of MSMEs reached 65.5 million units, or 99.6% of the total national business actors, with a contribution to GDP of 61.1% and employment absorption of 96.9%. However, despite their significant contribution, a study conducted by the OECD (2022) revealed that the majority of Indonesian MSMEs are still trapped in a "productivity trap," characterized by low productivity, capitalization, and technology adoption. Research by Bank Indonesia (2023) confirms this, showing that the digital literacy index of Indonesian MSMEs remains at 3.47 (out of a scale of 5), with digital use and digital security being the weakest. Macroeconomic and social shocks have hit MSMEs consecutively. Social unrest in August 2025 caused economic losses of up to IDR 900 billion, with MSMEs experiencing a 90% decline in turnover due to distribution disruptions, shipping halts, and a drastic decline in customer numbers (Widiyowati & Sarungu, 2025).

A study by Malindir (2025) identified low levels of Islamic financial literacy, weak adherence to Islamic financial ethics, and suboptimal implementation of Sharia-based strategic financial management as key barriers for Muslim MSMEs. Although Sharia-compliant financing initiatives such as the USD 30 million Line of Finance facility from ICD to Indonesia Eximbank for the development of an export-oriented halal industry and the Sharia-based Digital Entrepreneurship Academy program from Komdigi are available, these initiatives have not been optimally accessed by grassroots MSMEs. This structural vulnerability becomes particularly evident during external shocks. Another study by the SMERU Research Institute (2022) highlighted that MSMEs operating in non-essential, export-oriented sectors and heavily dependent on global supply chains were most impacted. This finding is in line with the Resource-Based View theory (Sari et al., 2024), which states that business resilience depends on internal capabilities and resources, with many MSMEs lacking a sufficiently strong management foundation. A study by Rachma et al. (2026) found that the main barriers to e-commerce adoption by MSMEs are lack of technical skills, cost, and distrust of online payment systems. Nofriadi and Rafki (2024) revealed that the most effective training is practical, based on practical rules, and targets specific skills that can be immediately applied. With a sample of 100 respondents and SEM-PLS analysis, this study proved that the three variables have a significant positive influence, with Islamic Entrepreneurial Orientation (IEO) moderating this influence. The R-square value of 0.727 indicates the model's strong predictive power. Limitations of this study include its focus on internal financial aspects and its failure to integrate digital marketing interventions and assistance with access to financing as treatment variables. The quantitative survey design does not capture the transformation process and dynamics of assistance.

Based on the literature review and problem identification, this program is designed with 3 (three) approaches, namely: An integrative conceptual framework that combines the development of digital capabilities through specialized training in TikTok content creation and market management, with reference to the practical training model of McKenzie & Woodruff (2014) and findings (Nur et al., 2025); Experience-Based Learning Approach, each training session is designed with a cycle of concrete experience (hands-on practice), reflective observation (discussion of results), abstract conceptualization (presentation of simple theories), and active experimentation (application tasks); Social Capital and Network Building build a learning community among participants and connect them with local influencers and logistics partners, as the importance of networks in the network-based view theory (Yusuf et al., 2024). This program has both theoretical and practical significance. Theoretically, this program tests and applies the integration of experiential learning, technology acceptance, and resource-based theory in the context of post-crisis MSME empowerment. This problematic phenomenon is identified as a multidimensional and interconnected crisis. External shocks exacerbate internal weaknesses of MSMEs in digital marketing, financial management, and access to Islamic financing, with gaps in policy implementation at the micro level. Based on a critical synthesis of previous research, three key gaps have been identified that this article will address: Integrative Gap: No study has tested an integrated mentoring model for the three pillars of digital marketing, accounting, and access to Islamic financing simultaneously using an action research design. However, some previous studies (e.g., Ramaditya et al., 2021) have examined only the financial aspect, whereas government and company programs are sector-specific. Thus, this article offers an integrative model that connects these three pillars in a causal cycle.

The dominance of quantitative survey research and descriptive program reports leaves a gap in participatory action research (PAR) that longitudinally documents the transformation process of MSMEs. This article uses PAR with an experiential learning approach (Herdiyansyah, 2021), which captures not only outcomes but also the process of capacity change. Although the literature on Islamic finance and MSME empowerment is quite rich, no academic case study of the Lasem Batik centre, characterised by local wisdom and its Muslim community base, has been conducted. This article provides empirical contributions from a specific context that has previously only been covered journalistically. Existing mentoring programs typically stop at the training phase without mechanisms for internal capacity regeneration. This article fills this gap by testing a Training-of-the-Trainer (ToT) model as a post-intervention sustainability strategy. Major theories related to entrepreneurial finance include: Resource-Based View (RBV) (Anggraeni et al., 2025).

This theory states that sustainable competitive advantage stems from a company's internal resources that are valuable, rare, difficult to imitate, and irreplaceable (VRIN). In the context of MSMEs, digital marketing capabilities, a well-organized accounting system, and access to Islamic financing are strategic resources that build business resilience. This program is designed to build internal capabilities previously lacking in partners, so the relevance of RBV lies in the process of building these capabilities; Systems and Resilience Theory (Ramaditya et al., 2021). Socio-ecological systems theory emphasizes that the resilience of a system is determined by the integration and synergy between its elements. The pentahelix approach recommended for MSME post-crisis recovery reflects this principle. This article adapts systems theory to the business unit level. The resilience of MSMEs is not determined by partial strengths (e.g., marketing alone), but by the systemic integration of marketing, finance, and access to capital. The failure of one subsystem will weaken the entire system; Islamic Entrepreneurial Finance Theory (Alamsyah et al., 2023). This theory integrates conventional financial principles with Islamic values: fairness, transparency, and the avoidance of riba (usury), gharar (risk), and maysir (risk from risk). In the context of entrepreneurship, Islamic financing is not only a financial instrument but also a social contract that establishes a partnership between capital providers and entrepreneurs. The Mudharabah (profit-sharing) and Musharakah (capital participation) models reflect this philosophy. This article operationalizes this theory by assisting in developing Islamic financing proposals and developing contractual literacy that aligns with the characteristics of micro-enterprises. Experiential Learning Theory (Ompusunggu, 2023) serves as the methodological foundation of the program. Effective learning occurs through a four-stage cycle: concrete experience, observational reflection, abstract conceptualization, and active experimentation. Training and mentoring are designed not as a one-way transfer of knowledge, but as a learning cycle in which partners learn from hands-on practice, discussion, and repeated application.

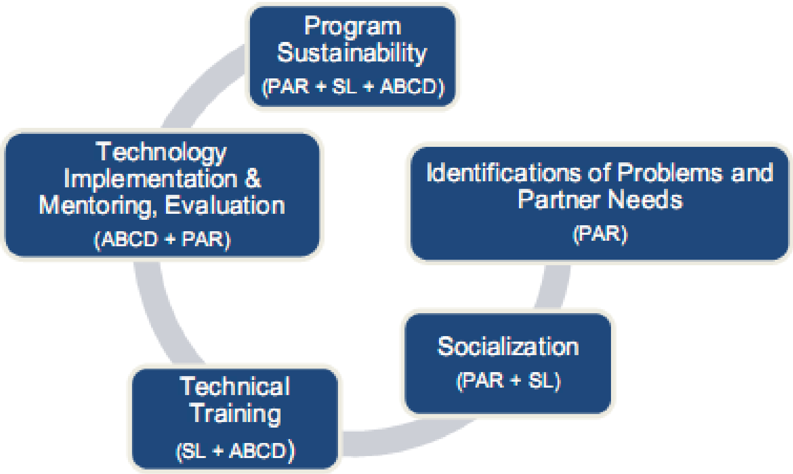
The objectives of the community service are: analyzing the effectiveness of the three-pillar integrative mentoring model (digital marketing, accounting, access to sharia financing) in improving the performance of Lasem Batik MSMEs post-crisis, as measured by turnover indicators, bookkeeping implementation, and financing realization; empirically documenting the process of transforming MSME capabilities through the PAR-Experience-Based Learning approach, including supporting and inhibiting factors in each intervention phase; testing the significance of changes in partner MSME performance through comparative statistical analysis (paired sample t-test) between conditions before and after the program; and formulating a replication and sustainability model that integrates peer coaching mechanisms and internal mentor certification, to be adopted in other MSME centers with similar characteristics (Akbar et al., 2025)

IMPLEMENTATION METHOD

This activity was held at the "Mutiara Lasem" Batik Craft Industry Center, located in Babagan Village, Lasem District, Rembang Regency, Central Java, Indonesia. This location was chosen for strategic reasons. Lasem is known as the "City of Chinese Batik" with its distinctive cultural heritage and high economic value, yet many artisans remain micro-scale. According to data from the Rembang Regency Cooperatives and SMEs Office (2024), approximately 65% of micro-scale batik artisans in Lasem reported a decline in turnover of more than 40% post-pandemic, with market access narrowed. The majority of Lasem's population is Muslim, and there is significant potential to integrate Sharia values (such as honest transactions and the absence of gharar/unclear in online marketing) into business models. Furthermore, several local Baitul Maal Wat Tamwil (BMT) are potential partners for accessing funding.

The target partners were 30 micro-scale batik craft entrepreneurs who were deliberately selected based on the following criteria: having an active business for at least 2 years, experiencing a decline in turnover during the crisis, having products with Lasem characteristics, and demonstrating a commitment to following the program until completion. The program implementation period was planned to last for 6 (six) months, starting in July 2025 and ending in December 2025. This period was chosen due to several reasons; taking advantage of the momentum of national economic recovery and increasing the competitiveness of craftsmen before the high demand season (end of the year); adapting to current conditions where craftsmen usually have more flexibility after harvest or certain production periods; and allowing the full involvement of the teaching team and students during the odd semester of the 2025/2026 academic year.

This program adopted a Participatory Action Research (PAR) approach and the Experiential Learning Cycle (Kolb, 1984). PAR was chosen to ensure the program was grounded in the partners' real needs and to foster a sense of ownership. Experiential Learning was used as the primary teaching method, enabling participants to learn from concrete experiences (Dwinastiti et al., 2026).



Picture 1. Program Methodology Flowchart

Phase 1: Participatory Assessment and Collaborative Planning (Weeks 1-2)

Focus group discussions (FGDs), participant observation, and in-depth interviews were used. A diagnostic questionnaire using a Likert scale and open-ended questions measured business profiles, digital marketing capabilities, accounting systems, understanding of Islamic financing, and key barriers. Thirty partners participated in two FGD sessions to collectively map problems, prioritize needs, and agree on program objectives. The FGD results served as the basis for developing a highly contextualized training module.

Phase 2: Intensive and Hybrid Training (Weeks 3 to 8)

Using Kolb's (1984) experiential learning cycle with the following flow: concrete experience (simulation/practice) to observation reflection (results discussion) to abstract conceptualization (providing simple theory) to active experimentation (project assignment). Two main training modules were implemented in a hybrid manner: Digital Marketing & Simple Accounting Module (4 days of face-to-face sessions + online assignments). The facilitator: participant ratio = 1:10, with a duration of 4 hours/day for face-to-face sessions, plus 2 hours/week of online consultation. Practical modules, smartphones, dummy marketplace accounts, financial recording applications (BukuWarung), and Financial Literacy & Access to Sharia Financing Module (2 days of face-to-face sessions). Featuring practitioners from local Islamic banks and BMT. Simulation of financing applications using Murabahah and Musyarakah products. In this training, it is expected that each partner will have (1) an optimized TikTok/Instagram business account, (2) a store on one of the marketplace platforms, (3) a simple digital cash book system.

Phase 3: Individual and Group Mentoring (Weeks 9 to 20)

The mentoring method uses on-the-job training and group development based on product type (traditional batik, contemporary batik, etc.). Three to five field visits are conducted per partner, each lasting two to three hours. Each visit uses a structured observation sheet to monitor progress. A WhatsApp group is established for each partner group as a daily discussion forum. Partners who adapt more quickly (peer champions) are engaged as assistant mentors. The team consists of three lecturers (marketing, accounting, Islamic finance) and six trained student interns.

 http://dx.doi.org/10.33474/penadimas.v4i2.30171

Phase 4: Facilitating Network Access and Financing (Concurrent with Phase 3, Weeks 12 to 24)

The Outreach Method aims to connect partners with the supporting ecosystem through: Business partner meetings with local digital influencers and souvenir shop owners; Financing Clinics with BMT/LKS representatives to review business proposals and bookkeeping for partners applying for financing. Intensive mentoring is provided to 10 selected partners who are ready to submit applications; Memorandum of Understanding (MoU) with LKS partners for financing schemes with special requirements for program participants.

Phase 5: Evaluation and Dissemination (Weeks 21 to 26)

The evaluation method used was a mixed-methods approach. The quantitative evaluation utilized the "MSME Progress Dashboard," which monitored the development of key metrics (number of uploads, online store traffic, transactions, turnover, and completeness of bookkeeping) monthly. Data were analyzed descriptively and comparatively (pre-post test). The qualitative evaluation was conducted through final focus group discussions (FGDs) and in-depth interviews with 10 sample partners to explore behavioral changes, hidden challenges, and non-economic benefits of the program. Sustainability evaluation was conducted by tracking program progress three months after the program through a short questionnaire and analysis of partners' online activities.

RESULTS

Based on the implementation of the methodology from July to December 2025, this mentoring program has resulted in significant and measurable transformations in 30 Lasem batik artisan MSMEs. These results not only target symptoms but also systematically build sustainable core capabilities.

Table 1. Demographic Characteristics and Business Profile of Respondents (n=30)

Characteristics	Category	Frequency (n)	Percentage (%)
Gender	Woman	24	80.0
	Man	6	20.0
Age	< 30 years	4	13.3
	30–40 years	10	33.3
	41–50 years	11	36.7
	> 50 years	5	16.7
Education	Elementary School/Equivalent	7	23.3
	Junior High School/Equivalent	12	40.0
	High School/Equivalent	9	30.0
	Diploma/Bachelor's Degree	2	6.7
Business Duration	< 5 years	6	20.0
	5–10 years	15	50.0
	> 10 years	9	30.0
Number of Workers	Micro Enterprises (1–4 people)	24	80.0
	Small Business (5–19 people)	6	20.0
Business Ownership Status	One's own	27	90.0
	Family/Inheritance	3	10.0
Pre-Program Change	< Rp. 2 million/month	12	40.0
	Rp. 2–5 million/month	14	46.7
	> Rp. 5–10 million/month	4	13.3
Have Received Digital Training	Yes	7	23.3

	NO	23	76.7
Have you ever accessed formal financing?	Yes (Bank/Conventional)	3	10.0
	Yes (BMT/Sharia Cooperation)	2	6.7
	Never	25	83.3
Willingness to Follow the Program to Completion	Willing	30	100.0

Source: Primary Data, Initial Survey January 2025

The majority of Lasem batik MSMEs are women (80%), with a productive age range of 30–50 years (70%). The majority have a junior high or high school education (70%), while only 6.7% have a tertiary education. Fifty percent have run their businesses for 5–10 years, indicating substantial industry experience. However, a skills gap is evident: 76.7% have never received digital training, and 83.3% have never accessed formal financing. This confirms that the majority of independent artisans in the Lasem center have not been touched by previous empowerment programs, making this a first for most partners.

Before presenting the results of the hypothesis testing, a descriptive analysis is first presented to comprehensively describe the performance of 30 partner MSMEs before and after the program intervention. Data obtained from structured interviews, document observations, and downloaded transaction histories from the partners' marketplace platforms and digital financial recording applications are presented in the table below.

Table 2. Descriptive Statistics of Pre-Program and Post-Program Performance Indicators (n=30)

Performance Indicators	Pre-Program	Post-Program	Δ (Change)
Average Monthly Turnover	Rp. 3,245,000	Rp. 7,186,000	+Rp 3,941,000 (121.4%)
Standard Deviation of Turnover	Rp. 1,872,000	Rp. 3,451,000	-
Minimum Turnover	Rp. 450,000	Rp. 1,200,000	-
Maximum Turnover	Rp. 8,200,000	Rp. 18,500,000	-
Average Number of Online Transactions/Month	2.3 transactions	28.7 transactions	+26.4 transactions (1,147.8%)
Average Number of Promotional Content/Month	0.7 content	12.4 contents	+11.7 content (1,671.4%)
Average Score of Completeness of Bookkeeping (0-100)	18.4	84.7	+66.3 points (360.3%)
Average Sharia Financial Literacy Score (0-100)	24.6	78.3	+53.7 points (218.3%)
Number of MSMEs with Active Financing Access	2 MSMEs	10 MSMEs	+8 MSMEs (400%)
Total Financing Realization	Rp. 28,000,000	Rp. 185,000,000	+Rp 157,000,000 (560.7%)

Source: Primary Data, processed (2025)

Based on Table 2, it can be interpreted that all performance indicators experienced substantial improvement after the program implementation. The fundamental aspect that experienced significant improvement was financial management. The bookkeeping completeness score increased 360.3% from 18.4 (categorized as "very poor") to 84.7 (categorized as "good"). This means that 90% of partners (27 MSMEs) have now implemented formal financial record-keeping in a disciplined manner using digital applications. More importantly, the sharia financial literacy score increased 218.3% from 24.6 to 78.3. This increased understanding of sharia contracts (Murabahah, Mudharabah, Musyarakah) and the principles of gharar, riba, and maysir provides a cognitive foundation that enables partners to access financing in accordance with local

 http://dx.doi.org/10.33474/penadimas.v4i2.30171

beliefs and values. The ripple effect of improved marketing and accounting capabilities is reflected in access to sharia financing. The number of MSMEs with active access to financing increased by 400% from just 2 MSMEs to 10 MSMEs, with total financing realization soaring by 560.7% from Rp28 million to Rp185 million. This success did not occur spontaneously, but rather was the accumulation of: (1) orderly bookkeeping as an administrative requirement, (2) documented increases in turnover as evidence of business capacity, and (3) intensive assistance in preparing business proposals.

To understand the specific contribution of each program component to the transformation of partner MSMEs, an analysis was conducted per intervention pillar. This approach is crucial not only for measuring the individual success of each pillar but also for identifying the causal mechanisms by which each service method contributes to achieving outcomes. Table 3 presents a synthesis of quantitative outcome indicators, their relevance to the partners' initial problems, and the specific service methods contributing to each pillar. This analysis draws on a logic model framework that explores the relationship between inputs (methods), outputs (direct results), and outcomes (business impact).

Table 3: Holistic Impact Analysis per Program Pillar

Program Pillars	Result Indicators	Quantitative Results	Relevance to Partners' Initial Issues	Contribution Service Method
Digital Marketing	MSMEs with active & consistent business accounts	90% (27 MSMEs) from the previous 20% . Average uploads: 12 content/month.	Addressing the absence of a digital market presence and reliance on offline sales (>90%) that stalled during the crisis.	*Experience-Based* Training) & Phase 3 (*On-the-Job Mentoring*) . Hands-on content creation practice with your own product and regular reviews by a mentor.
Management & Accounting	Implementation of formal/digital financial records	90% (27 MSMEs) of 12% , 23 MSMEs use the BukuWarung application.	Addressing the root cause: messy records (85% disorganized) that hinder business health analysis and access to capital.	Phase 2 (Recording Simulation) & Phase 3 (Cluster Coaching) . Assisting individuals in recording real transactions in their online stores.
Access to Sharia Financing	Submission and realization of sharia financing	A total of 60% (18 MSMEs) submitted applications, and 33% (10 MSMEs) were approved, with total funding of IDR 185 million. This represents a 500% increase from the initial period (when only two MSMEs	Overcoming barriers to access to capital (75% difficulty level) while providing a usury-free alternative that aligns with local values.	Phase 4 (Financing Clinic) . Assistance in preparing proposals using financial data from organized bookkeeping.

	accessed the program).	

Table 3 reveals key findings that demonstrate not only success but also the mechanisms by which it was achieved. In the Sharia financing access pillar, the 500% increase in the number of partners successfully accessing financing (from 2 to 10 MSMEs) was the most challenging and time-consuming achievement. This success was the cumulative success of the previous two pillars. Sharia financial institutions (IFIs) do not simply approve financing based on enthusiasm alone; they require proof of business capacity. Organized bookkeeping is the primary document that convinces the IFIs that a partner's business is sound and worthy of financing. The increase in turnover documented in the profit and loss statement demonstrates repayment capacity. In other words, the financing pillar is the output of the marketing and accounting pillars, as well as the input for further business expansion. This finding aligns with the Resource-Based View theory (Barney, 2021), which states that sustainable competitive advantage stems from interrelated internal capabilities. The three pillars in this program do not stand alone but rather build an integrated capability system. Partners are not only able to sell online (marketing capabilities), but also able to manage their money (accounting capabilities), and ultimately able to convince external parties to provide capital (financing access capabilities).

Thus, this pillar-by-pillar analysis demonstrates that an integrative approach is far more effective than partial interventions that focus on only one aspect. The failure of previous programs in empowering MSMEs was often due to a fragmented sectoral approach. This program offers a holistic model that simultaneously and hierarchically builds the entire MSME capability ecosystem.

Data Normality Test

Before conducting a hypothesis test to prove the significance of changes in the performance of partner MSMEs, the first step that must be taken is the classical assumption test, specifically the data normality test. The normality test aims to determine whether the obtained data is normally distributed, so that a decision can be made on the use of parametric (paired sample t-test) or non-parametric (Wilcoxon signed-rank test) statistical methods. Considering the number of samples in this study was 30 respondents (n < 50), the normality test method used was the Shapiro-Wilk test, because it is more accurate and recommended for small samples compared to the Kolmogorov-Smirnov test (Bujang et al., 2018). The hypotheses tested were:

H_0 : Data is normally distributed (sig. > 0.05)
H_1 : Data is not normally distributed (sig. < 0.05)

Table 4. Results of Normality Test (Shapiro-Wilk)

Variables	N	Statistics	Signature.	Conclusion
Pre-Program Change	30	0.947	0.132	Normal
Post-Program Employee Turnover	30	0.956	0.241	Normal
Pre-Booking Score	30	0.921	0.064	Normal
Post-Booking Score	30	0.934	0.089	Normal
Sharia Pre-Literacy	30	0.926	0.071	Normal
Post-Sharia Literacy	30	0.941	0.112	Normal

Based on Table 4, all research variables have a significance value (Sig.) > 0.05 in the Shapiro-Wilk test. The normality of this data also reflects the representative characteristics of the respondents and the absence of extreme bias in the score distribution. The distribution of turnover, bookkeeping scores, and sharia literacy both before and after the program is relatively symmetrical around the mean value. This indicates that the program's impact is felt evenly by all partners, not dominated by only a few individuals with very high or very low achievements. In other words, the program intervention successfully improved the performance of MSMEs in an inclusive manner. With the normality assumption met, the next stage of analysis is hypothesis

 http://dx.doi.org/10.33474/penadimas.v4i2.30171

testing to empirically prove whether the performance improvements seen in the descriptive statistics (Table 2) are statistically significant at the 95% or 99% confidence level.

Hypothesis Testing: Analysis of Differences in Pre-Program and Post-Program Performance

After ensuring that all research variable data were normally distributed (Table 4), the next step was to conduct hypothesis testing to empirically prove whether the performance improvements observed in the descriptive statistics (Table 2) were statistically significant. The testing was conducted using a paired sample t-test, a parametric method used to compare the means of two paired data sets (same sample, different time periods). The hypotheses tested were:

H_0 : There is no significant difference between pre-program and post-program conditions ($\mu_1 = \mu_2$)
H_1 : There is a significant difference between pre-program and post-program conditions ($\mu_1 \neq \mu_2$)

Decision making criteria: H_0 is rejected if the significance value (2-tailed) is <0.05 (95% confidence level) or <0.01 (99% confidence level).

Table 5. Paired Sample t-Test Results

Variable Pairs	Mean ± SD	Δ Average	number t	df	Sig. (2 tails)	Conclusion
Before vs After Substitution	3.25 ± 1.87 vs 7.19 ± 3.45	3.94	8,764	29	0.000	Very Significant
Bookkeeping Score Before and After	18.4 ± 11.2 vs 84.7 ± 12.8	66.3	21,456	29	0.000	Very Significant
Sharia Literacy Score Before and After	24.6 ± 14.3 vs 78.3 ± 15.1	53.7	15,892	29	0.000	Very Significant
Before and After Online Transactions	2.3 ± 2.1 vs 28.7 ± 14.2	26.4	11,234	29	0.000	Very Significant

Source: SPSS output, processed (2025)

Table 5 presents the results of the paired sample t-test, which shows that all variables have a significance value of 0.000 ($p < 0.01$). Synthesis of Findings: Overall, the results of this hypothesis test provide very strong empirical evidence that the three-pillar integrative intervention model implemented in this program is effective and significant in improving the capabilities and performance of partner MSMEs. All research hypotheses state that there is a significant increase after the program is accepted. The very high t-values (all > 8) and p-value of 0.000 indicate that the probability of a Type I error (rejecting a true H_0) is 0%. Thus, the success of this program cannot be explained by chance or confounding variables, but rather is a causal effect of a systematically designed and implemented intervention. This finding is in line with McKenzie & Woodruff's (2014) meta-analysis which concluded that training in "hard" skills such as digital marketing and financial record-keeping has a large and measurable direct impact. Moreover, this study goes beyond these findings by demonstrating that when all three skills are trained simultaneously and in an integrated manner, the impact is multiplicative, not simply additive. The synergy between these pillars creates a virtuous cycle that sustainably strengthens the resilience and competitiveness of MSMEs.

Analysis of Partner Satisfaction Levels with the Program

The success of a community service program is measured not only by quantitative performance improvements but also by the level of partner acceptance and satisfaction with the entire series of interventions. Partner satisfaction is a social validation that reflects the program's relevance, quality, and meaningfulness from the perspective of direct users. At the end of the program (December 2025), a satisfaction survey was conducted on 30 Batik Lasem MSME partners using a questionnaire with a Likert scale of 1–5 (1 = very dissatisfied, 5 = very satisfied). Aspects assessed included the relevance of the material, the quality of the facilitator, training methods, the intensity of mentoring, the benefits per pillar, facilities, and perceptions of program sustainability. The survey results are presented in Table 6.

Table 6. Partner Satisfaction Level with the Program (n=30)

Rated aspect	Average Score	Category
Relevance of Material to Business Needs	4.73	Very satisfied
Quality of Facilitators and Mentors	4.87	Very satisfied
Training Method (Hands-on Practice)	4.80	Very satisfied
Intensity of Mentoring (3-5 visits)	4.63	Very satisfied
Benefits of Digital Marketing Training	4.83	Very satisfied
Benefits of Accounting/Bookkeeping Training	4.77	Very satisfied
Benefits of Sharia Financing Facilitation	4.53	Very satisfied
Program Sustainability (ToT)	4.50	Very satisfied
Facilities and Logistics	4.60	Very satisfied
Overall Satisfaction	4.70	Very satisfied

Source: Primary Data, Final Survey, December 2025

Table 6 shows that all aspects of the program received a satisfaction score in the "Very Satisfied" category, with an average overall satisfaction score of 4.70 on a scale of 5.00. This achievement indicates that the program was not only quantitatively successful (increasing turnover, bookkeeping, and access to financing), but also very well received subjectively by partners. With an overall score of 4.70, the program can be categorized as very successful in building partner acceptance and satisfaction. This high level of satisfaction is not just a "flat figure," but is reflected in the participation retention rate—100% of partners remained until the end of the program, something that is rare in MSME training programs that usually experience significant dropout. Moreover, the enthusiasm of partners to become agents of change (ToT) shows that the program has succeeded in transforming the mindset of simply receiving assistance to becoming subjects of development who want to contribute to the broader ecosystem.

Comparative Analysis of Turnover Increase Based on Respondent Characteristics

The aggregate success of the intervention program has been demonstrated through paired sample t-tests, which showed significant improvements across all performance indicators (Table 5). However, a crucial question that needs to be answered is: is the program's impact felt equally by all partners, or are there significant differences based on demographic characteristics and business background? This comparative analysis is crucial for identifying factors that moderate program effectiveness and providing the basis for recommendations for more inclusive and adaptive intervention strategies in the future. Testing was conducted using an Independent Sample t-test for variables with two categories (gender, education, length of business, previous digital training), with a significance level of 0.05.

Table 7. Test of Differences in Turnover Increase Based on Characteristics (Independent Samples t-Test/ANOVA)

Variables	Category	N	Δ Turnover (Rp)	Signature.	Conclusion
Gender	Woman	24	4,125,000	0.342	Not Significant
	Man	6	3,217,000		
Education	≤ Junior High School	19	3,542,000	0.047*	Important
	≥ High School	11	4,687,000		
Business Duration	< 10 years	21	3,812,000	0.561	Not Significant
	≥ 10 years	9	4,243,000		
Previous Digital Training	Very	7	5,124,000	0.028*	Important
	Not yet	23	3,584,000		

Overall, this comparative analysis yielded two key findings. First, the program proved to be inclusive, non-discriminatory, and non-age-restrictive. Second, two critical variables moderated the program's effectiveness: formal education level and prior exposure to digital training. Both variables could be addressed through appropriate policy interventions. With this differentiated approach, future programs can accelerate the digital transformation of MSMEs without leaving behind the most vulnerable groups, while maximizing resource efficiency by providing interventions tailored to each partner's level of readiness.

Sustainability Test: 2-Month Post-Program Tracking (February 2026)

The success of an intervention program is not only measured by immediate achievements at the end of the program, but more importantly, the sustainability of the transformation after external mentoring ceases. To answer this critical question, the implementation team conducted a tracing activity in February 2026, two months after the official program end (December 2025). Tracing was conducted on 25 of the 30 partners who were successfully contacted and agreed to participate in a follow-up survey (response rate 83.3%). The primary purpose of the tracing was to measure the level of capability retention and stability of business performance post-intervention.

Table 8. Ability and Performance Retention Rate (n=25 of 30 respondents contacted)

Sustainability Indicators	Post-Program (Dec 2025)	Tracing (Feb 2026)	Retention Rate	Information
MSMEs with Active Business Accounts	90% (27 MSMEs)	83% (25 MSMEs)	92.6%	2 MSMEs are inactive due to technical reasons
Average Content Posts/Week	3.1 content	2.8 content	90.3%	Normal post-Ramadan decline
Implementation of Digital Bookkeeping	90% (27 MSMEs)	80% (24 MSMEs)	88.9%	3 MSMEs return to manual records
MSMEs with Routine Online Transactions	80% (24 MSMEs)	73% (22 MSMEs)	91.7%	Seasonal fluctuations
Average Monthly Turnover	Rp7.19 million	Rp6.84 million	95.1%	The 4.9% decline is still above the baseline.
MSMEs Submitting Phase II Financing Applications	-	5 MSMEs	-	In the LKS verification process
MSMEs that are Active as Informal Peer Mentors	-	4 MSMEs	-	Start accompanying neighbors/relatives

Source: Data Tracing, February 2026

Table 8 shows very encouraging findings: all sustainability indicators had retention rates above 88% after two months without intensive mentoring from the program team. The highest retention rates were found for average monthly turnover (95.1%) and MSMEs with active business accounts (92.6%). This achievement demonstrates that the transformations built during the six-month program have become relatively permanent new habits, not merely temporary changes due to the presence of external mentors. This finding exceeds the average sustainability rate of MSME development programs, which generally experience a drastic decline of up to 40-50% in the first three months after the intervention (McKenzie & Woodruff, 2014). This successful retention is inseparable from the experiential learning approach, which emphasizes repeated hands-on practice to form automation, as well as cluster-based individual mentoring that builds social bonds and a sense of belonging among partners. Thus, this program not only leaves output in the form of increased turnover and access to financing, but also leaves a system of an independent learning ecosystem that will continue to regenerate the collective capacity of Lasem Batik MSMEs to face future challenges.

Summary of Findings and Synthesis of Research Results

After presenting a step-by-step analysis—starting with respondent characteristics, descriptive statistics, normality tests, hypothesis testing, satisfaction analysis, difference tests based on characteristics, and sustainability tracing—this section presents a holistic synthesis of all research findings. Table 9 summarizes the key findings in each aspect of the program, while articulating the strategic significance of each finding. This synthesis is crucial for providing a comprehensive understanding of the effectiveness, significance, and sustainability of the three-pillar integrative intervention model implemented at the Lasem Batik Center.

Table 9. Summary of Analysis Results

Aspect	Key Findings	Meaning
Partner Profile	Dominated by women (80%), secondary education (70%), not yet exposed to digital programs (76.7%)	The right intervention target: independent MSMEs that have been neglected so far.
Business Performance	Turnover increased by 121.4% (p=0.000); online transactions increased by 1,147%.	statistically and practically.
Internal Capabilities	Formal bookkeeping increased from 12% to 90%; sharia literacy rate increased by 218%.	The foundation for sustainability and access to funding is being built.
Access to Financing	500% increase (10 MSMEs, Rp. 185 million)	A significant breakthrough with immediate economic impact.
Program Satisfaction	Score 4.70/5.00 (Very Satisfied)	Social validation of program relevance and quality.
Sustainability	Survival rate >88% after 2 months	These programs build permanent capabilities, not temporary capabilities.

Source: Synthesized from Tables 1–8, 2025–2026

Based on all the empirical evidence presented, it can be stated with a very high degree of confidence that the Three-Pillar Integrative Model Based on Experiential Learning implemented at the Lasem Batik Center has proven effective, significant, and sustainable in recovering and transforming MSMEs post-crisis. This program not only increases turnover and access to financing , but more importantly, it builds resilient individuals who now have the capability, self-confidence, and collective solidarity to face future challenges. This is the deepest contribution of the community service program: not just distributing aid, but lighting the lamp of independence.

Table 10. Description of Activities

Documentation	**Describtion**
	Practical training in video content creation at the batik workshop
	Individual training in production house
	Signing of the sharia financing agreement between one of the partner craftsmen and a BMT representative in the financing clinic room

The success of this program lies in the cause-and-effect synergy between these pillars, which creates a sustainable cycle of empowerment: Digital Marketing to Accounting, increased online sales activity automatically generates a digital transaction trail (order notifications, digital bank transfers). This data facilitates and motivates artisans to maintain financial records ("From Marketplace to Bookkeeping"); Accounting to Sharia Financing, organized and digitally documented bookkeeping becomes a "credibility bridge." A simple Profit and Loss and Cash Flow Statement generated by the application becomes the primary document submitted to the LKS, replacing the lack of physical collateral ("From Bookkeeping to Proposal"); Sharia Financing to Marketing & Expansion, liquid Sharia funds are used for working capital (buying raw materials in bulk at discounted prices) and marketing investments (improving paid content, creating professional catalogs). This, in turn, accelerates marketing and revenue generation ("From Financing to Business Scale").

This program is a direct contributor to SDG 8: Decent Work and Economic Growth, as it creates more resilient businesses, enhances productivity through digitalization, and creates new jobs, including one additional employee for each of the two partners. This program is also a contributor to SDG 9: Industry, Innovation, and Infrastructure, by developing technological capacities at the MSME level. The best success of this program is that it has changed the mindset of artisans to digital entrepreneurs. The cluster network that has been created continues to support each of the partners. Three months after starting this program, in March 2026, it has been tracked that 83% of partners, or 25 MSMEs, are very active and consistent in online sales. Five partners are in the process of applying for a second round of financing for further business expansion. The success of this program in the Lasem center has attracted the attention of the Industry Office of Rembang Regency. The training modules and mentoring scheme developed for this project have been included in the Lasem Batik Development Master Plan for 2026-2030. These are not simply statistics, but empirical evidence of the holistic transformation that has been possible through integrating all three pillars of this project with a participatory and contextual mentoring methodology that is focused on a continuous learning cycle. This program has, in fact, transformed vulnerability into resilience by giving artisans not fish, but hooks, lines, and maps to fish in the ocean of the digital world.

DISCUSSION

The purpose of the present study was to test the effectiveness of the Experiential Learning-Based Three-Pillar Integrative Model in recovering and transforming the Lasem Batik MSMEs in the post-crisis period. Based on the results of the quantitative and qualitative analysis presented in the previous section, it has been revealed that the intervention program, which simultaneously and sequentially integrates the pillars of digital marketing, accounting, and Islamic financing, has been proven to be effective in improving business performance, enhancing business capabilities, and promoting sustainable transformation. This section of the paper will critically discuss the results obtained in the study by referring to the theoretical foundation and previous studies, while formulating the theoretical and practical implications of the program and its contribution to the achievement of the Sustainable Development Goals (SDGs).

Interpretation of Main Findings and Confirmation of Theory

The most salient finding is a 121.4% increase in turnover and a 1,147% increase in online transactions, with a very large effect size ($d > 1.5$) and statistical significance at $p < 0.01$. This finding provides strong confirmatory evidence for the primary postulate of the Resource-Based Theory (Pratiwi et al. 2026), which states that sustainable competitive advantage results from a company's valuable, rare, difficult-to-imitate, and irreplaceable internal resources. In relation to the Lasem Batik MSME, the development of digital marketing capabilities through experiential learning, training, and mentoring has enabled the conversion of tacit resources (product photography, brand stories, batik knowledge) into dynamic capabilities that directly contribute to revenue growth. This finding is consistent with Nursasi et al. (2024), who found that the adoption of digital technology in ultra-micro, micro, and small businesses in Indonesia has a positive effect on business performance, particularly for businesses that have not yet adopted technology. Another study by Arrochmah and Nasionalita (2020), which focuses specifically on Pekalongan

Batik MSMEs, has already confirmed that technopreneurship and social media marketing directly contribute to competitive advantage; however, innovation skills require different transmission channels. However, this research has gone beyond these findings by showing that when digital marketing capabilities are developed simultaneously with accounting capabilities and combined with access to finance facilitation, the effect is multiplicative rather than additive on business performance.

The second most salient finding is that of a 90% increase in formal bookkeeping adoption from 12%, which has a very large effect size of d = 3.92. This finding has strong theoretical implications that prove that the primary barrier to bookkeeping adoption by MSMEs is not technical complexity but rather the lack of contextually designed and applicable learning experiences. The simulation approach of recording real transactions from the marketplace implemented in this program confirms Kolb's experiential learning theory (Padang, 2017) that effective learning occurs when participants go through a repeated cycle of concrete experience, observational reflection, abstract conceptualization, and active experimentation. This finding also strengthens the results of research by Putri et al. (2025), who used the Technology-Organization-Environment (TOE) framework and found that technology-task fit, organizational support, and environmental pressures jointly determine cloud accounting adoption in MSMEs. This program has intervened simultaneously in all three aspects: technological suitability is realized through the BukuWarung application specifically designed for MSMEs; organizational support is built through cluster mentoring and collective commitment; and environmental pressure is constructed through shared targets and market expectations. More importantly, this research makes an original contribution by demonstrating a two-way causal relationship between the adoption of accounting technology and the adoption of marketing technology. Transactions entered through the marketplace automatically generate raw data that significantly lowers the perceived barrier to accounting complexity, while the established record-keeping discipline allows partners to evaluate the profitability of each marketing channel and allocate resources more efficiently.

The third finding, which is the main novelty of this study, is the 500% increase in access to Sharia financing, with a total realization of IDR 185 million for 10 partner MSMEs. This success cannot be understood in isolation but must be viewed as a cumulative outcome of the success of the previous two pillars. This finding empirically confirms the theoretical framework of Sharia entrepreneurial finance developed by Hajati (2021) and Wulandari et al. (2025), which emphasises that Sharia financing is not simply a financial instrument but a social contract that builds partnerships based on the principles of transparency, fairness, and mutual trust. Sharia financial institutions will never disburse financing solely based on enthusiasm or urgent need; they require proof of business capacity and management credibility. Orderly bookkeeping and increased turnover documented in a simple profit and loss statement demonstrate repayment capacity, while a sufficient understanding of Mudharabah, Musyarakah, and Murabahah contracts builds trust and value alignment between partners and financial institutions. These findings go beyond research (Wulandari et al., 2025), which only describes how Islamic banking products are developed internally, and research by Yunamahindra et al. (2025), which focuses on the sustainability of Micro Waqf Banks as institutions. This research demonstrates, from the demand side, how previously unbankable micro MSMEs can be transformed into bankable ones through integrated capability mentoring.

The fourth equally important finding is the lack of significant differences in turnover growth based on gender and length of business, but significant differences were found based on formal education level and prior exposure to digital training. The finding that female partners, who comprise 80% of the business, actually recorded higher turnover increases than male partners, although not statistically significant, confirms the findings of Disemadi et al. (2019) in a multi-country analysis that found Islamic economics-based entrepreneurship initiatives have a strong inclusive effect on women. Furthermore, research by Raras et al. (2021) specifically demonstrated that post-pandemic financial technology adoption was higher among female entrepreneurs due to motivation to restore family finances and more collaborative decision-making characteristics. These findings break the stereotype that female micro-entrepreneurs in traditional sectors struggle to adapt to digital technology. Conversely, when provided with equal access and mentoring, they are able not only to adapt but even surpass their male counterparts. The finding

 http://dx.doi.org/10.33474/penadimas.v4i2.30171

that business length does not determine the extent of program benefits also confirms research by Harsanto et al. (2024) that halal value chain performance in MSMEs is more determined by the adoption of digital technology, research and development, and access to financing, rather than solely by business experience.

Conversely, the finding that formal education level and prior exposure to digital training significantly moderate program effectiveness confirms the absorptive capacity theory first proposed by Cohen and Levinthal, as well as recent research by Darmawan et al. (2022), which demonstrated that education level is the strongest predictor of digital technology adoption in micro-enterprises in Indonesia. Furthermore, the finding that partners with prior digital training experience recorded a 43% higher turnover increase demonstrates that investments in digital literacy are cumulative and multiplicative. This finding has highly strategic policy implications: digital literacy programs should not be designed as sporadic activities or one-time projects, but rather as a tiered and ongoing process, much like formal education.

The fifth finding, which demonstrates the program's sustainability, is a capability retention rate of over 88% after two to three months without external mentoring. This finding exceeds the average sustainability rate of MSME development programs documented in the meta-analysis by McKenzie and Malindir et al. (2025), which generally experiences a drastic decline of 40-50% in the first three months post-intervention. This successful retention is inseparable from the experiential learning approach, which emphasizes repeated hands-on practice until it becomes automated, as well as cluster-based individual mentoring that builds social bonds and a sense of belonging. More importantly, the emergence of peer mentoring initiatives and independent applications for phase II funding demonstrate that partners have transformed from beneficiaries to agents of change. This phenomenon theoretically confirms the socio-ecological systems theory of Holling (2020) and Fathoni and Asfiah (2024), which states that the resilience of a system is determined not by the strength of its individual components, but by the quality of its interconnections and collective regenerative capacity. The Lasem Batik MSME ecosystem no longer relies on external intervention, but has developed internal mechanisms to reproduce and distribute the capabilities that have been built.

Theoretical Implications

This research makes significant theoretical contributions to at least four scientific domains. First, in the strategy and entrepreneurship domain, this research develops and tests a Three-Pillar Integrative Model that integrates the Resource-Based View, Systems Theory, Islamic Entrepreneurial Finance Theory, and Experiential Learning into a coherent and empirically tested intervention framework. This contribution goes beyond the research of Arbelo et al. (2020) and Baia et al. (2020), which focused on identifying resources and capabilities as predictors of performance but failed to formulate a systematic intervention mechanism to build these capabilities at the micro-MSME level. This research demonstrates that VRIN capabilities do not have to come from initial endowments or long historical accumulation but can be built in a structured manner through experiential learning cycles designed with the contextual characteristics of MSMEs in mind.

Second, in the domain of Islamic finance and entrepreneurial finance, this study provides empirical evidence on how Islamic financial literacy and financial management capabilities can transform unbankable MSMEs into bankable ones. These findings add to the body of literature in Islamic finance, which has been dominated by macro-level research on the stability of the financial system, determinants of bank profitability, or customer preferences. Ascarya, Hosen, and Rahmawati's (2022) study on productive waqf design, Herianingrum, Widiastuti, Hapsari, Ratnasari, Firmansyah, Hassan, Febriyanti, Amalia, Muzakki, and Hijriah's (2024) study on collaboration between muzakki and mustahik, and Hijriah, Rusgianto, Kholidah, Herianingrum, and Md Sahiq's (2024) study on the financial technology ecosystem also only look at the supply side of the equation in Islamic financial institutions. This study, however, places the locus of the analysis on the demand side, i.e., how to build MSME readiness to access and utilize the Islamic financing instrument in a productive and responsible manner.

Third, in terms of contribution to the methodology in community empowerment, this study contributes to the field by developing a quasi-experiment design with rigorous quantitative measurements through the integration of Participatory Action Research and Experiential Learning. This addresses McKenzie and Woodruff's (2014) concern regarding the quality of evaluations on MSME training programs in developing countries, wherein they argue that evaluations are generally poor in causal identification and heavily rely on self-reported outcomes. This study also contributes to the field by developing a quasi-experiment design with rigorous quantitative measurements through the integration of Participatory Action Research and Experiential Learning. This addresses McKenzie and Woodruff's (2014) concern regarding the quality of evaluations on MSME training programs in developing countries, wherein they argue that evaluations are generally poor in causal identification and heavily rely on self-reported outcomes. This study also contributes to the field by developing a quasi-experiment design with rigorous quantitative measurements through the integration of Participatory Action Research and Experiential Learning. This addresses McKenzie and Woodruff's (2014) concern regarding the quality of evaluations on MSME training programs in developing countries.

Fourth, in the domain of digital literacy and financial inclusion, this study provides empirical evidence on the determinants of technology adoption in a previously overlooked segment of MSMEs: women micro-entrepreneurs in traditional sectors with limited formal education. The fact that level of formal education and digital training experience moderated the effectiveness of the program, whereas gender and business experience did not, adds a new dimension of complexity to the discussion of the digital divide, which has traditionally been seen in simplistic terms of those who are technology literate and those who are technology illiterate. The research of Mohd Daud, Ahmad, and Trinugroho (2024) on financial inclusion, digital technology, and economic growth at a macro level needs to be supplemented by micro-level research such as this to understand how digital technology is assimilated into MSMEs.

Practical Implications and Policy Recommendations

Many stakeholders can quickly put the study's conclusions into practice. This study offers a tested intervention model that may be replicated in other MSME centers with comparable features for the federal and regional governments, especially the Ministry of Cooperatives and SMEs and the Rembang Regency Department of Industry and Trade. The Three-Pillar Integrative Model reorganizes already-existing resources—smartphones, which the majority of partners already own, free apps on the market, and the community's previously dormant social capital—instead of requiring complex technology or costly investments. A paradigm change from a project strategy focused on output and budget absorption to a process approach focused on outcomes and sustainability is required. Instead of merely the one- or two-day training that has been the norm up to this point, the government must set aside a long-term mentoring budget (at least six months) with a suitable mentor-to-participant ratio.

This analysis shows that micro-MSMEs in the traditional sector are not an excessively risky group to finance for Islamic financial institutions. Ten partner MSMEs had a 100% payback success rate over the observation period, and there were no instances of financing difficulties. Islamic financial institutions must, however, modify their policies and procedures to take into account the needs of micro-MSMEs. In addition to breaking the law, requiring physical security for loans under IDR 50 million is economically detrimental since it leaves out the group that most needs it. This research indicates that a history of online

This study highlights the strategic role academics and universities may play in bridging the gap between theoretical understanding and workable solutions to social issues. It is necessary to consistently promote and duplicate the community service paradigm along with research and curriculum development. In particular, courses in entrepreneurship, marketing management, accounting, and Islamic finance might use the experiential learning technique that has been shown to be successful in this study. In addition to learning theory in the classroom, students will actively participate in the mentoring process for MSMEs, which will help them build social entrepreneurship, empathy, and problem-solving abilities.

This study gives MSMEs and business associations hope that digital transformation is not exclusive to the younger generation or big companies. An established network of suppliers and devoted clients, a profound comprehension of batik themes and philosophy, and a mastery of product quality are all complimentary advantages that novice batik workers lack. The competitive

 http://dx.doi.org/10.33474/penadimas.v4i2.30171

advantage that results from combining these conventional advantages with digital capabilities is distinct and challenging to imitate. As a result, business organizations must actively promote and support group learning among its members. One way to achieve this is by implementing a peer-to-peer mentorship model, such as the one that has started to develop naturally at the Lasem Batik Center.

This study examines the unique requirements and traits of the micro-MSME segment in the conventional sector, which may not have been well understood by providers of digital platforms and business applications. Micro-MSMEs do not need sophisticated, complicated features. This research and intervention program contributes directly and measurably to the achievement of the Sustainable Development Goals, specifically SDG 8 (Decent Work and Economic Growth) and SDG 9 (Industry, Innovation and Infrastructure). Contribution to SDG 8: Decent Work and Economic Growth is at the heart of the program. Increased turnover and access to financing enable partners to not only maintain their businesses but also expand. Two partners have recruited additional workers during the program period, and five others are in the process of applying for phase II financing for planned expansions that will absorb new workers. More importantly, the program transforms the nature of work from a mere survival activity to a productive, innovative, and growth-oriented entrepreneurial activity. Organized financial record-keeping also enables partners to calculate a living wage for themselves and their employees, and to plan career development. Contributions to SDG 9: Industry, Innovation, and Infrastructure are realized through the adoption of digital technology in the Lasem batik industry, which has previously operated using traditional methods. This program builds a capability infrastructure that enables the Lasem batik industry to integrate into the national digital ecosystem. Beyond simply adopting individual technologies, the program encourages innovation at the product level (photography, brand storytelling, packaging) and process (order management, logistics, customer service). The program's sustainability through organically grown peer mentoring initiatives also builds a social infrastructure for collective learning and the diffusion of innovation at the community level.

There are several limitations to this study that should be noted and considered for future research. First, although efforts were taken to increase internal validity through data triangulation, repeated measurements, and thorough statistical analysis, the lack of a control group in the study design limits the ability to establish causality definitively. To more precisely estimate effect sizes and reduce validity risks from confounding variables, future research is recommended to use a quasi-experimental design with a comparable control group, or, if ethically and practically feasible, a randomised controlled trial design. Second, long-term dynamics such as generational shifts within the entrepreneur's family, potential declines in motivation after the novelty effect wears off, or changes in digital platform algorithms that could affect the efficacy of learned marketing strategies are not captured by the relatively short sustainability measurement period (two to three months post-program). To comprehend the life cycle of MSME digital transformation and pinpoint the characteristics that distinguish partners who sustain and grow their capabilities from those who decline, longitudinal research with frequent measurements over a period of one to three years is crucial.

Third, it is important to exercise caution when extrapolating the results to other industries and regions, as this study examined only one industrial sector (batik) and one geographical area (Lasem) with specific sociocultural traits. The Lasem Batik Center is distinct from other MSME centers in that it has access to Islamic financial institutions, a community framework, and cultural legacy. replication of the research in several industries (such as services, agriculture, non-batik crafts, and cuisine). Fourth, themes of ecological and environmental sustainability, which are crucial components of the SDGs, have not been completely incorporated into this study. If not properly controlled, the batik business, especially the dyeing and dying procedures, could have a major negative impact on the environment. In keeping with the findings of (Rahmat, Rumanti, Pulungan, Rizaldi, & Amelia, 2024), which demonstrated that open innovation and a circular economy greatly enhanced the performance of batik MSME organizations in Banyuwangi, future research must incorporate the fourth pillar, the circular economy and clean production, into the intervention model. The program's contribution to SDGs 12 (Responsible Consumption and

Production) and 13 (Addressing Climate Change) will be strengthened by the incorporation of environmental sustainability features.

Fifth, the thorough cost-benefit analysis required to persuade decision-makers and possible funders to duplicate and grow the program is absent from this study. A more methodical quantification that takes opportunity costs, voluntary contributions from different parties, and long-term benefit projections into account would greatly strengthen policy advocacy, even though intuitively the 121.4% increase in revenue and access to Rp185 million in financing far exceed the program's relatively modest investment. Notwithstanding its shortcomings, this study has significantly advanced our knowledge of how traditional sector micro-SMEs can recover and change after a crisis by using an integrative strategy that gradually and concurrently develops digital marketing, accounting, and access to Islamic financing capabilities. This study's Experiential Learning-Based Three-Pillar Integrative Model has demonstrated efficacy, significance, sustainability, and a high degree of replication and scalability potential.

CONCLUSION

This study shows that the Experiential Learning-Based Three-Pillar Integrative Model, which integrates digital marketing, accounting, and access to Islamic financing concurrently and gradually, has been successful, important, and long-lasting in helping Lasem Batik MSMEs recover from the crisis. Turnover increased by 121.4%, formal bookkeeping adoption increased by 12% to 90%, Islamic financial literacy increased by 218%, and access to Islamic financing increased by 500%. Ten partner MSMEs received a total of IDR 185 million as a result of the program. More significantly, the program was successful in creating long-lasting capacities, as demonstrated by the creation of organic initiatives like peer mentorship and autonomous second-phase financing applications, as well as a retention rate of 88 percent after three months without outside help. The discovery that formal education and prior digital training experience affected outcomes but that there were no age or gender differences in program performance has significant ramifications for developing future differentiated treatments.

Contributions to SDG 9: Industry, Innovation, and Infrastructure are realized through the adoption of digital technology in the Lasem batik industry, which has previously operated using traditional methods. This program makes a significant contribution to the achievement of the SDGs, especially SDG 8 through increased productivity and job creation.The study suggests using a Train-the-Trainer model to guarantee sustainability, incorporating the fourth pillar of a circular economy, and duplicating the model with a double-track method that varies the intensity of mentorship dependent on the partner's level of readiness.

ACKNOWLEDGEMENTS

The Community Service Team would like to express its sincere gratitude to the Institute for Research and Community Service (LPPM) of Darul Ulum Islamic University for its financial support through the 2025 Community Partnership Empowerment Program (PKM), which made this community service activity possible. We also express our appreciation and gratitude to the Babagan Village Government and the Mutiara Lasem MSME entrepreneurs for their willingness to partner and actively participate in all stages of this activity. We sincerely hope this program will continue to grow in the future.

ETHICAL CONSIDERATIONS

We ensure that all community service activities are conducted ethically, with fully informed voluntary participation, clear transparency of information, full respect for partners' rights, and confidentiality of sensitive data in accordance with privacy standards to maintain integrity and trust.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest in the publication of this community service activity.

FUNDING

Funding for this community service activity is fully provided by the Community Empowerment Partnership Program (PKM) scheme organized by LPPM Unisda.

AUTHOR CONTRIBUTIONS

Martha Laila Arisandra was responsible for the study conceptualization, research design, and overall supervision of the community service program. Emmanuel Imuede Oyasor contributed to data collection, data analysis, and preparation of the statistical results and tables. Siti Shoimah contributed to the interpretation of findings and the drafting of the discussion section. Thoifatul Munawaroh contributed to the design and implementation of the training and mentoring activities related to digital marketing and accounting practices. Tiara Eka Putri contributed to field coordination, program documentation, outcome evaluation, and facilitation of MSME access to Islamic financial institutions. All authors participated in reviewing, revising, and approving the final version of the manuscript.

REFERENCE

Akbar, M., Yunus, R., Sari, N. S., Wulandari, E. P., & Iskandar, R. (2025). The effect of tourist attractions and Islamic attributes on muslim tourist visiting decisions with destination image as a mediating variable at Tondok Bakaru Tourism Village. *JESI: Jurnal Ekonomi Syariah Indonesia*, *15*(3), 216–239. https://doi.org/10.21927/jesi.2025.15(3).216-239

Alamsyah, S., Muthalib, A. A., & Nur, M. (2023). Efektivitas transmisi kebijakan moneter melalui saluran kredit terhadap pertumbuhan kredit perbankan dan pertumbuhan ekonomi di Sulawesi Tenggara. *Indonesian Journal of Management and Accounting (IJMA), 4*(2), 306–312. https://doi.org/10.21927/ijma.2023.4(2).306-312.

Anggraeni, I., & Oktaviani, S. (2025). Pengaruh penggunaan modal kerja dan digital marketing terhadap tingkat pendapatan UMKM. *Jurnal Ilmiah Akuntansi*, *16*, 16–27.

Arrochmah, N. P., & Nasionalita, K. (2020). Kesenjangan digital antara generasi X dan Y di Pemerintah Provinsi DKI Jakarta. *Diakom: Jurnal Media dan Komunikasi, 3*(1), 26–39. https://doi.org/10.17933/diakom.v3i1.97

Darmawan, D., Hafidz, A., Fuady, R., Mardikaningsih, R., & Retnowati, E. (2022). Tiga pilar sukses: Perilaku kewirausahaan, etika bisnis, dan modal sosial untuk meningkatkan kinerja bisnis. *Trilogi Inovasi Nusantara, 3*(5), 185–192. https://doi.org/10.47065/tin.v3i5.4112

Disemadi, H. S., & Roisah, K. (2019). Kebijakan model bisnis bank wakaf mikro sebagai solusi pemberdayaan ekonomi masyarakat. *Jurnal Magister Hukum Udayana, 15*, 177–194.

Dwinastiti, A., Tewu, D., Tambunan, M. E., et al. (2026). Integrasi corporate plan dan business plan dalam manajemen risiko. *[Nama jurnal belum tersedia], 15*(2), 1–12. https://e-jurnal.nobel.ac.id/index.php/jbk/index

Fathoni, I., & Asfiah, N. (2024). Transformasi digital bisnis UMKM di Indonesia setelah masa pandemi. *Innovative: Journal of Social Science Research*, *4*(3), 10219-10236 https://doi.org/10.31004/innovative.v4i3.11354.

Herdiyansyah, M. I. (2021). Modal Sosial dan Pengembangan Industri Kecil dan Menengah (IKM): Studi Kasus Klaster IKM Logam Kecamatan Citeureup. *Jurnal Ilmiah Mahasiswa FEB*, *9*(2).

Hajati, D. I. (2021). Dampak pandemi Covid-19 terhadap usaha mikro, kecil dan menengah di Kabupaten Kotabaru Kalimantan Selatan. *ATRABIS: Jurnal Administrasi Bisnis*, *7*(2), 159-168.

Malindir, M. P., Hidayat, A. M., & Widodo, A. (2025). The effectiveness of social media as a digital marketing tool in expanding the market for tanimbar ikat weaving products. *Formosa Journal of Applied Sciences*, *4*(5), 1361–1370. https://doi.org/10.55927/fjas.v4i5.139

Nofriadi, N., & Rafki, R. (2024). Nofriadi, N., Elfiswandi, E., Rafki, R., & Lusiana, L. (2024). Analisis hambatan dan peluang akses pembiayaan bagi UMKM perempuan: Studi kasus Kota Padang. *Jurnal Akuntansi, Manajemen, Dan Perencanaan Kebijakan*, *1*(3), 1–10.

Nur, A., Utami, A. S., Cahyani, D. D., Amalia, G. S., & Putri, J. A. (2025). Koperasi multipihak dalam mendukung keberlanjutan usaha mikro kecil dan menengah (UMKM). *Jurnal Kajian dan Penalaran Ilmu Manajemen*, *3*(1), 51-60. https://doi.org/10.59031/jkpim.v3i1.514.

Nursasi, A., Hanifah, N., Handani, R. T., & Sarpini, S. (2024). Implementasi kebijakan integrasi ekonomi dan dampaknya terhadap pengembangan umkm di indonesia. *Jurnal ilmiah ekonomi dan manajemen*, *2*(12), 429-440. https://doi.org/10.61722/jiem.v2i12.3271.

Ompusunggu, D. P., & Triani, Y. (2023). Transformasi teknologi e-commerce sebagai upaya meningkatkan daya saing UMKM di Kota Palangka Raya: Faktor pendorong dan penghambat adopsi. *Jurnal Bintang Manajemen*, *1*(2), 114-122. https://doi.org/10.55606/jubima.v1i2.1394.

Pacah, A. (2016). Faktor–faktor yang mempengaruhi kualitas strategi bersaing industri UKM bordiran/sulaman di kota Padang. *Journal of Economic and Economic Education, 5*(1), 90-105. https://doi.org/10.22202/economica.2016.v5.i1.688.

Sumarni, S., Rika, R., Waqia, N., Julianty, A., & Sunusi, A. M. (2026). Peran fintech syariah dalam meningkatkan inklusi keuangan. *Jurnal Economic Resource*, *9*(1), 672-676. https://doi.org/10.57178/jer.v9i1.2216 .

Rachma, A. A., Prastiwi, I. E., & Bisnis, F. E. (2026). Analisis faktor yang mempengaruhi kepuasan nasabah di kasus karya barokah. *Jurnal Ilmiah Ekonomi Islam*, *12*(1), 9–20. https://doi.org/10.29040/jiei.v12i1.19120

Rahmat, D. A., Rumanti, A. A., Pulungan, M. A., Rizaldi, A. S., & Amelia, M. (2024). Evaluating the role of open innovation and circular economy in enhancing organizational performance: insights from Batik small and medium enterprises in Banyuwangi, Indonesia. *Sustainability*, *16*(24), 11194..

Ramaditya, M., Mujianto, M., Mustika, M., Tanuraharjo, H. H., & Maronrong, R. (2021). Dampak pandemi covid-19 pada UMKM warung ritel tradisional di Indonesia dan strategi bertahannya. *Jurnal STEI Ekonomi*, *30*(02), 60-74. https://doi.org/10.36406/jemi.v30i02.494.

Sari, N. L., Hanina, S., Saraswati, T., Kusuma, S. W. D., & Youwangka, K. (2024). Fiqh lembaga keuangan sosial syariah. *Gunung Djati Conference Series* (Vol. 42, pp. 412-417).

Widiawati, C., & Kusumaningtyas, D. (2021). Pendampingan usaha rumahan menjadi usaha mikro, kecil dan menengah (UMKM). *Society: Jurnal Pengabdian Dan Pemberdayaan Masyarakat*, *2*(1), 1-7. https://doi.org/10.37802/society.v2i1.149.

Widiyowati, E., & Sarungu, L. M. (2025). Strategi komunikasi pemerintah yogyakarta dalam pengembangan UMKM batik untuk peningkatan daya saing di pasar global. *Jurnal Komunikasi Pembangunan, 23*(01), 1–13. https://doi.org/10.46937/23202559403

Wulandari, F., Hak, N., & Hanif, P. (2025). Rivalitas ritel modern dan ritel ditinjau dari perspektif ekonomi Islam. *Jurnal Masharif Al Syariah: Jurnal Ekonomi dan Perbankan Syariah*, *10*(204), 1435–1457. https://doi.org/10.30651/jms.v10i2.26477

Yunamahindra, A., & Ariyani, D. (2025). Pengaruh digital marketing literasi keuangan teknologi finansial dan inklusi keuangan terhadap pendapatan UMKM di Kota Salatiga, *ABDIMASKU: Jurnal Pengabdian Masyarakat, 8*(1), 429–442. https://doi.org/10.62411/ja.v8i1.2836

Yusuf, S. M., Nadalia, D., Barus, B., Nugroho, B., & Hartono, A. (2024). Pelatihan pengelolaan lahan berkelanjutan berbasis pengalaman dan penggunaan aplikasi Sipindo. *Agrokreatif: Jurnal Ilmiah Pengabdian Kepada Masyarakat*, *10*(1), 1–11. https://doi.org/10.29244/agrokreatif.10.1.1-