



Empowering Bojonegoro Handicraft MSMEs through digital marketing and financial literacy assistance

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ABSTRACT

The handicraft industry in Bojonegoro, East Java, holds significant potential through products such as Jonegoroan batik, batik painting, knitted products, and teakwood crafts. However, members of the Asosiasi Handicraft Jatim (AHJ) Bojonegoro still face critical challenges in digital marketing and financial management. Limited use of Google Business Profile and the absence of systematic bookkeeping have restricted market reach and weakened sustainability. To address this issue, a community service program was conducted with the aim of empowering local artisans through knowledge transfer and practical mentoring. The method was implemented in five stages: planning, implementation, evaluation, feedback, and sustainability. The implementation included two main sessions, namely digital marketing and financial literacy training, complemented by mentoring and practice. 30 MSMEs owners participate in the program, and pre- and post-tests revealed significant improvement in knowledge. Evaluation results showed positive responses, with participants expressing strong interest in the continuation of similar programs. This mentoring program contributed to enhancing partners' capacity to expand market reach, improve business financial management practices, and strengthen the economic competitiveness of handicraft MSMEs in Bojonegoro in a sustainable manner.

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1. INTRODUCTION

The handicraft sector has long been recognized as one of the strategic pillars of Indonesia's creative economy, not only because of its contribution to employment creation and community income but also for its role in preserving local wisdom and cultural identity (Jingga et al., 2020; Rofieq et al., 2019). Empirical evidence highlights its significant contribution to both exports and employment, where handicrafts account for the majority of local income and provide thousands of jobs (Roostika et al., 2015; Utomo et al., 2021). Beyond its economic significance, handicrafts such as batik represent globally acknowledged cultural heritage and serve as a medium for social empowerment, including programs dedicated to marginalized communities (Ratyaningrum et al., 2025; Supriyadi & Prameswari, 2022). This illustrates the sector's relevance in strengthening national economic resilience, particularly in rural areas where handicraft production often serves as a primary livelihood.



Figure 1. Selected products from AHJ Bojonegoro members

Handicraft micro, small, and medium enterprises (MSMEs) in Bojonegoro Regency, East Java, represent an important component of the local creative economy. These enterprises are affiliated with the Asosiasi Handicraft Jatim (AHJ) Bojonegoro, an organization established in 2019 that currently accommodates more than 100 artisans producing various craft products, including Jonegoroan batik, painted batik, knitted works, bamboo crafts, and teakwood-based products as seen in Figure 1. Despite their strong cultural value and product quality, many AHJ members face persistent challenges in business development, particularly in expanding market reach and managing business finances. Preliminary observations and discussions with AHJ members indicate that most artisans have not optimally utilized digital marketing tools, especially Google Business Profile, and still rely on informal promotion channels. In addition, financial management practices remain largely unsystematic, characterized by the absence of regular bookkeeping and the lack of separation between personal and business finances. These conditions limit business scalability and weaken long-term sustainability.

Barriers such as insufficient training, lack of technical knowledge, resource constraints, and security concerns have been highlighted as major obstacles (Barman & Mahanta, 2025; Hidayat et al., 2025). Singh & Kalia (2020) further emphasize that although MSME owners recognize the importance of e-marketing, their knowledge of structured campaigns or government-led initiatives remains limited, resulting in lost opportunities for scaling businesses and enhancing competitiveness.

In addition to digital marketing limitations, weak financial literacy poses another structural challenge that significantly affects MSMEs' performance and sustainability. Many entrepreneurs fail to separate personal and business cash flows, maintain routine bookkeeping, or prepare even simple financial reports. This condition undermines their ability to evaluate performance, access financing, and make informed decisions. Mishra & Kiran (2025) assert that financial literacy is a key determinant of MSME sustainability. Rohaeni et al. (2025) confirm that digital financial literacy enhances access to formal financial services and strengthens business outcomes, while Harahap et al. (2024) highlight that improved literacy, inclusion, and access to capital directly stimulate business growth and welfare. Thus,

financial illiteracy not only represents a technical limitation but also threatens long-term resilience in the face of external shocks.

Given these intertwined challenges, community service initiatives play a critical role in providing structured interventions that combine knowledge transfer, skill development, and practical mentoring. Previous studies affirm that digital and financial literacy are crucial determinants of MSME resilience, particularly during periods of crisis such as the COVID-19 pandemic (Yanto et al., 2022). Previous studies also emphasize that digital marketing, especially through Search Engine Optimization (SEO)-based platforms, has a positive and significant impact on sales performance and business sustainability (Ravindran et al., 2023). Without systematic support, MSMEs risk being left behind in the digital era, unable to compete with businesses that have already embraced technology-driven models. Therefore, the program was designed to directly address these gaps through a holistic approach. By equipping artisans with skills in creating and optimizing Google Business Profiles, implementing SEO strategies, and practicing routine bookkeeping with digital applications, the program aims to empower participants to expand their market reach, enhance their decision-making capacity, and ensure sustainable growth.

Previous community service programs in similar contexts also indicate that digital adoption combined with financial training can significantly improve MSMEs' resilience (Rosyidiana et al., 2025b). Responding to this urgency, the program was designed for AHJ Bojonegoro with a holistic approach. The program consists of two primary components: (1) Digital marketing training focusing on the creation and optimization of Google Business Profiles complemented by SEO strategies; and (2) Financial literacy training emphasizing cash flow separation, routine bookkeeping, and the use of digital applications for simple reporting.

The main objective of this program was to emphasize the creation and optimization of Google Business Profiles, the use of SEO-based promotional strategies, and the application of digital tools for cash flow monitoring and bookkeeping. The Handicraft 4.0 community service program was implemented for 30 selected members of AHJ Bojonegoro using a structured five-phase approach consisting of planning, implementation, evaluation, feedback, and sustainability (Rosyidiana et al., 2025b). Conducted at Zahida Gallery on 27 September 2025, the program combined lectures, demonstrations, mentoring, and pre-post assessments to ensure measurable learning outcomes.

2. METHODS

The participants consisted of 30 members of AHJ Bojonegoro, representing diverse business backgrounds such as batik painting, knitted products, wooden crafts, and jewelry. A preliminary survey conducted prior to the program revealed that more than 70 percent of participants had never optimized Google Business Profile as a marketing tool, while over 60 percent continued to rely on manual bookkeeping without systematic financial reporting. These gaps underscored the urgency of strengthening both digital marketing practices and financial literacy to improve competitiveness and sustainability.

To address these pressing needs, the program was designed with a practical focus on digital marketing and financial management. Digital marketing assistance in this program was conceptualized as the practical adoption of location-based and search-oriented digital promotion tools suitable for micro and small handicraft enterprises. The primary digital marketing technology applied was Google Business Profile, selected due to its accessibility, cost efficiency, and relevance for local MSMEs (Lira Camargo et al., 2022; Valdez-Palazuelos et al., 2023). Participants were guided through technical steps including account creation and verification, accurate business information input (business category,

address, operating hours, and contact details), product photo uploading, keyword-based business descriptions, and customer review management. Basic SEO principles were introduced, focusing on local keywords, consistency of business information, and engagement through customer feedback to enhance online visibility in Google Search and Google Maps.

Financial management assistance was designed to strengthen basic financial literacy and daily financial discipline among artisans. The concept emphasized cash flow separation between personal and business finances, routine transaction recording, and preparation of simple financial reports to support decision-making (Rahmawati et al., 2023; Rosyidiana et al., 2025b; Susan, 2020). Participants were introduced to digital bookkeeping applications for MSMEs, enabling them to record income and expenses, monitor cash flow, and generate basic reports such as cash flow statements and simple profit summaries. The integration of digital tools was intended to reduce manual errors, improve financial transparency, and support business sustainability (Komala & Firdaus, 2023; Mangawing et al., 2023; Rafiani et al., 2024).

The program was conducted at Zahida Gallery, Bojonegoro, chosen not only for its accessibility and recognition as one of the creative economy hubs in the region but also for its symbolic importance to the local artisan community. The gallery's owner is both an active member and a mentor of the AHJ Bojonegoro, who played a pivotal role in initiating and supporting the establishment of the association. This made Zahida Gallery an appropriate venue, reinforcing its dual function as a marketplace for handicraft products and a center for community empowerment.

The sessions were supported with multimedia equipment such as laptops, projectors, sound systems and stable internet connectivity to ensure interactive and effective delivery. Limiting participation to 30 artisans was considered optimal to encourage active engagement, provide individualized mentoring, and create a collaborative learning atmosphere. By situating the program at Zahida Gallery, the initiative also reinforced the long-standing commitment of local leaders in empowering MSMEs, ensuring that the training was both contextually relevant and strongly rooted in the community's institutional framework.

Table 1. Stage of activity implementation

Level of stages	Activity	Implementation time
Planning Stage	<ul style="list-style-type: none"> - Identify partners' needs - Schedule, tasks, and budget arrangement - Modules and tests (pre & post) preparation - Logistics and permits coordination 	April–September 2025
Implementation Stage	<ul style="list-style-type: none"> - Digital marketing training (Google Business Profile) - Financial management training (cash flow, bookkeeping) - Hands-on practice and mentoring 	September 2025
Evaluation Stage	<ul style="list-style-type: none"> - Pre- and post-test - Q&A sessions - Training outcome analysis - Progress and final reports 	September 2025
Feedback Stage	<ul style="list-style-type: none"> - Partner discussions and recommendations - Media publication - Reflection and improvement program 	September–October 2025
Sustainability Stage	<ul style="list-style-type: none"> - Follow-up partner discussions - Business progress monitoring 	October–November 2025

The program adopted a structured five-phase methodology as commonly applied in previous community service initiatives (Rosyidiana et al., 2025a; Rosyidiana et al., 2025b). This model was chosen because it has been widely applied in community service initiatives and proven effective in ensuring program sustainability. Methodology as shown in Table 2 include: planning, implementation, evaluation, feedback, and sustainability. The planning stage was conducted during April–September 2025 and aimed to identify partner needs and prepare program instruments. Activities included a preliminary survey of AHJ Bojonegoro members, coordination meetings with AHJ management, development of training modules on digital marketing and financial management, and preparation of assessment instruments (pre-test and post-test). Logistical preparation, including scheduling and securing the venue at Zahida Gallery, was also completed, supported by the gallery owner who played a key role as a mentor and initiator of AHJ.

The implementation stage took place on 27 September 2025 and involved 30 handicraft MSME participants. The first session focused on digital marketing, specifically the creation and optimization of Google Business Profiles and basic SEO strategies. The second session emphasized financial literacy, including cash flow separation, systematic bookkeeping, and the use of digital applications for simple reporting. These sessions were complemented by direct mentoring and practice, enabling participants to apply the material in real time.

In the evaluation stage, participants completed pre- and post-tests, followed by Q&A sessions and group discussions to analyze the effectiveness of the training. The results were documented in progress and final reports. The feedback stage was conducted immediately after the training through structured evaluation forms and group reflection. This stage aimed to gather participants' perceptions regarding material clarity, relevance, applicability, and future needs. The feedback was used to formulate recommendations for improving subsequent community service programs and was disseminated through internal reports and local media publications. The sustainability stage was implemented to ensure program impact beyond the training period. Follow-up monitoring with AHJ Bojonegoro focused on participant's continued use of Google Business Profile, financial bookkeeping practices, and business development.

3. RESULTS AND DISCUSSION

Results

Planning

The planning stage represented a critical foundation for ensuring both the effectiveness and smooth execution of the community service program. At this stage, a comprehensive needs assessment was conducted involving 30 micro and small entrepreneurs, all members of the AHJ Bojonegoro. The pre-survey findings indicated that, despite producing high-quality crafts such as batik, wood-based ornaments, knitted goods, and fashion accessories, most participants had limited knowledge of structured digital marketing and lacked systematic financial management practices. Many had not yet created or optimized a Google Business Profile, and bookkeeping was often informal without clear separation of personal and business cash flow. These results confirmed the urgency of providing training and mentoring to strengthen their competitiveness and long-term sustainability.

Based on the identified needs, two training modules were designed: (1) Digital Marketing for MSMEs, focusing on Google Business Profile optimization, search engine optimization (SEO), and digital

content storytelling; and (2) Financial Management for MSMEs, emphasizing cash flow separation, routine bookkeeping, and preparation of simplified financial statements aligned with Indonesian accounting standards for MSMEs. Both modules were structured with practical exercises and case-based learning to ensure relevance to artisans' daily business contexts. To measure program effectiveness, pre- and post-tests were also developed as assessment instruments, enabling systematic evaluation of knowledge improvement among participants. In parallel with the training materials, promotional media were prepared in the form of an official event flyer. The flyer outlined the program objectives, themes, schedule, speakers, and venue, serving both as an informational tool and as a means to build participants' engagement.

Logistical and institutional coordination was also carefully arranged in collaboration with AHJ Bojonegoro. Zahida Gallery was selected as the venue due to its central location and symbolic importance. The gallery's owner, a senior AHJ member and mentor, was among the key initiators of the association, making the venue both strategic and meaningful for the participants. Technical arrangements included seminar kits (handouts, stationery, and program materials), room preparation, and the organization of a product exhibition corner, where participants were invited to display their crafts during the training. This ensured that the event functioned not only as a learning platform but also as a promotional opportunity for the artisans' products.

The planning stage ensured strong alignment between program objectives and participants' needs, prepared structured training materials, established effective communication strategies through flyers, and secured institutional support and logistics. These preparations collectively laid a solid foundation for the successful implementation and sustainability of the program.

Implementation

The implementation stage was carefully designed to ensure that participants not only received theoretical input but also developed practical skills directly applicable to their businesses. Upon arrival, each participant received seminar kits containing training materials and stationery. The program opened with welcoming remarks from the Chairperson of AHJ Bojonegoro and the program coordinator. Before the training sessions, a pre-test was conducted to capture the baseline knowledge of participants regarding the use of Google Business Profile and basic financial management practices.

The first session was delivered by a lecturer and practitioner in the field of digital marketing and entrepreneurship. Her presentation emphasized the strategic role of Google Business Profile in enhancing MSMEs' online visibility and market reach. The session began with the fundamentals of Google Business Profile, including account registration, profile verification, and accurate completion of essential business information (business name, category, address, operating hours, and contact details). Participants were also guided on uploading high-quality product photos, crafting persuasive product descriptions, and utilizing keywords effectively to increase ranking in Google search results.

Beyond the basics, the training highlighted the importance of SEO, where MSMEs were introduced to simple yet impactful SEO strategies such as keyword optimization, customer review management, and integrating GBP with social media platforms. Case examples of successful MSMEs using GBP effectively were also showcased to inspire participants. Throughout the session, participants were highly engaged, actively raising questions regarding common obstacles such as the verification process, low visibility of their online stores, and strategies to encourage customer feedback. The interactive discussion confirmed that most participants had not previously optimized Google Business Profile, making this training highly relevant and impactful for their business digitalization process.

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Figure 2. Digital marketing and financial management training

The second session was facilitated by a lecturer specializing in financial management and MSME accounting practices. This session addressed fundamental issues of financial literacy that directly affect MSMEs' sustainability. The material covered three critical aspects: the separation of personal and business finances, the practice of routine bookkeeping through systematic daily transaction records, and the preparation of simple financial reports such as cash flow statements and income statements for decision-making purposes. The facilitator also introduced several digital bookkeeping applications tailored for small enterprises, demonstrating how these tools could simplify financial documentation and improve transparency. In addition, the discussion addressed common financial difficulties faced by MSMEs, including irregular cash flow, lack of transaction records, and difficulties in measuring profitability. Participants were highly responsive, actively sharing their experiences and challenges, which enriched the session by transforming it into a collaborative problem-solving process.

Taken together, both sessions as shown in Figure 2 provided not only theoretical insights but also practical guidance supported by direct mentoring from lecturers and student assistants. This integrated approach ensured that participants were not merely passive recipients of information but were able to practice the skills immediately, thereby strengthening their capacity to implement digital marketing strategies and sound financial management in their businesses.



Figure 3. Hands-on mentoring

Following the delivery of the core material, participants took part in mentoring sessions. These mentoring activities in Figure 3, enabled participants to immediately apply the knowledge gained, creating or optimizing their Google Business Profiles, uploading real product content, and recording financial transactions using digital tools. The direct assistance allowed personalized problem-solving, while the interactive nature of the mentoring fostered peer-to-peer learning and collaborative reflection on business challenges.

Additionally, a mini exhibition was arranged where participants showcased their handicraft products. This activity served not only as a platform for product promotion but also as an opportunity for content creation, as trainers and students assisted participants in capturing professional-quality product photographs for use in their digital marketing channels. As part of this process, all participants successfully created and activated their Google Business Profile accounts, uploaded their product information and visual content, and were encouraged to actively engage their customers by requesting online reviews. This step was intended to strengthen their digital presence, enhance business credibility, and improve visibility in search engine results through customer-generated feedback. Several examples of participants' Google Business Profile implementations are presented in Figure 4, illustrating the initial outcomes of the digital marketing assistance provided through the program.

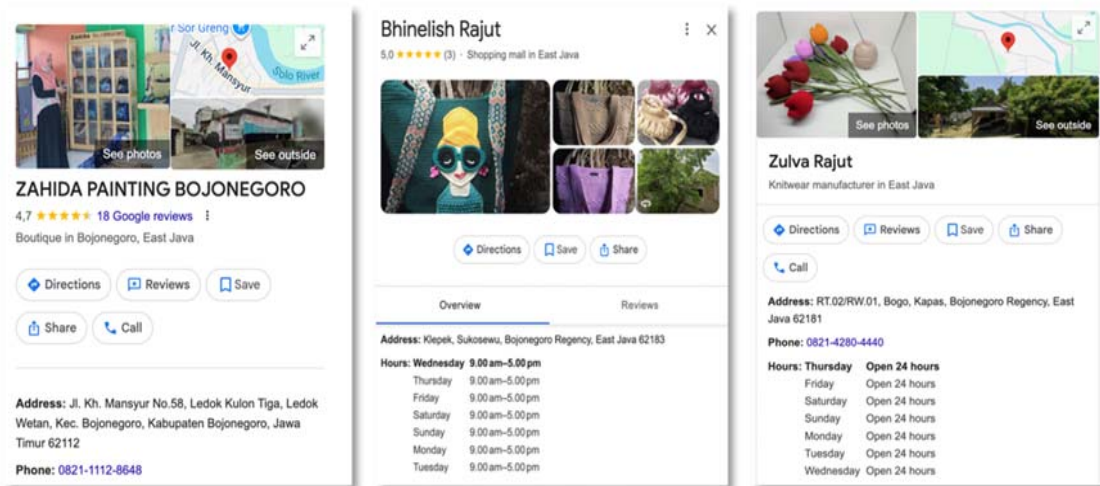


Figure 4. The results of Google Business Profile registration by participants

The training concluded with a post-test to measure knowledge improvement, followed by another round of interactive discussion and Q&A that allowed participants to consolidate key lessons. Recognition was given to those who achieved the highest test scores as an encouragement for continuous learning. Evaluation forms indicated overwhelmingly positive responses, with participants appreciating both the theoretical inputs and the interactive, practice-oriented approach of the program. Many expressed their interest in sustaining similar initiatives for continuous improvement.

The implementation stage was marked not only by structured delivery of digital marketing and financial literacy training but also by high participant engagement through discussions, Q&A, and hands-on mentoring. This participatory approach ensured that the outputs, optimized Google Business Profiles, improved bookkeeping practices, and enhanced digital content, were directly relevant and immediately usable for strengthening the competitiveness of Bojonegoro's handicraft MSMEs.

Assessment

As part of the evaluation process, all participants were required to complete a pre-test before the training sessions and a post-test immediately after the program concluded. The tests were designed to assess knowledge and skills related to digital marketing, particularly the use of Google Business Profile and SEO optimization, as well as basic financial management, including cash flow separation, routine

bookkeeping, and the application of digital tools for financial reporting. Table 2 presents the structure of the pre and post-test instrument, which consisted of 15 multiple-choice items representing two competency dimensions: digital marketing using Google Business Profile (8 items) and MSME financial literacy (7 items). Each item corresponded to a specific indicator to ensure construct alignment and content validity.

Table 2. The pre and post-test indicators

Competency	Indicator(s)
Digital Marketing (Google Business Profile)	<ul style="list-style-type: none"> - Understanding the main function of Google Business Profile for MSMEs. - Knowledge of the first step in creating a Google Business Profile. - Understanding the importance of accurate business information in GBP. - Awareness of the role of product photos in increasing customer interest. - Understanding the function of customer reviews for business credibility. - Knowledge of strategies to encourage customers to leave reviews. - Basic understanding of local SEO concepts in Google Business Profile. - Awareness of the importance of regularly updating GBP content.
Financial Literacy (MSME Financial Management)	<ul style="list-style-type: none"> - Understanding the importance of separating personal and business finances. - Knowledge of appropriate tools for recording business cash flow. - Understanding the benefits of routine bookkeeping for business control. - Knowledge of simple financial statements for MSMEs. - Awareness of MSME accounting standards (SAK EMKM). - Ability to interpret financial information for decision-making. - Awareness of the importance of timely and consistent transaction recording.

The pre-test established participants baseline knowledge, while the post-test as shown Figure 5 measured the short-term learning outcomes attributable to the intervention. This paired assessment framework provided a robust means to evaluate both the overall improvement in competencies and the effectiveness of the program’s instructional design, which combined lectures, guided practice, and personalized mentoring.

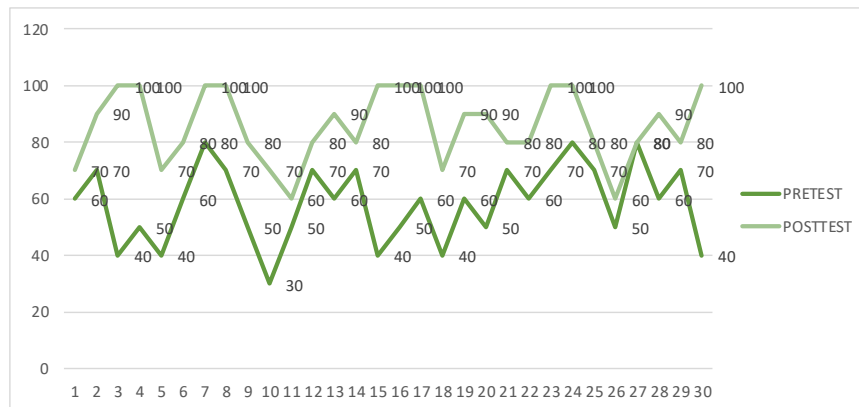


Figure 5. Pre-test and post-test result

A pre–post design was employed to measure short-term learning gains in digital marketing and financial management among the 30 participating artisans. The results show that participants’ skills improved in a clear and consistent way after the intervention. Figure 6 shows that almost all of the participants had higher post-test scores than pre-test scores, which shows that they learned a lot in a relatively brief period of time. Descriptive analysis reveals a significant improvement in the average score post-training, indicating an improved comprehension of both digital marketing and essential financial management principles, such as cash flow separation and regular bookkeeping. The upward shift in the score distribution also implies that the intervention helped individuals with different levels of expertise, especially those who started with very little. This pattern shows that the mix of structured lectures, hands-on mentoring, and practical application succeeded to improve participants’ digital and financial skills in a brief period of time.

Participant feedback reinforced the quantitative findings. To sustain motivation, the participant with the highest post-test score was recognized with an award. End-of-program evaluations indicated overwhelmingly positive perceptions of the training, with participants highlighting the relevance of the content, clarity of delivery, and usefulness of hands-on mentoring sessions. Many also expressed a strong desire for continued support, particularly in sustaining the use of Google Business Profile, regular bookkeeping, and digital finance applications.

Taken together, these results provide compelling evidence that the program effectively enhanced participants’ digital marketing and financial literacy competencies. The combination of lectures, guided practice, and one-on-one mentoring produced meaningful, statistically significant, and educationally robust learning gains. Importantly, the intervention was especially impactful for participants with limited prior knowledge, underscoring its value in addressing existing capability disparities while elevating overall professional competency among AHJ Bojonegoro’s artisans.

Feedback

The post-training evaluation was completed by all 30 participants of the Handicraft 4.0 program, providing valuable insights into the perceived effectiveness and relevance of the intervention. Results, as presented in Table 3, showed overwhelmingly positive responses, with the vast majority selecting either Agree or Strongly Agree across all indicators. When aggregated, more than 80 percent of participants rated the sessions as clear, useful, and directly applicable to their businesses. For example, 22 participants strongly agreed and an additional 8 agreed that the speakers delivered the material in an accessible and effective manner. Similarly, 21 participants strongly agreed and 9 agreed that the training had significantly improved their knowledge.

Table 3. Feedback evaluation

Indicator	Strongly Agree (n)	Agree (n)	Total (n=30)
Clarity of material delivery	22	8	30
Knowledge improvement	21	9	30
Business application (financial management)	21	9	30
Digital marketing capacity strengthening	22	8	30
Impact on business revenue	21	9	30
Need for continued mentoring	24	6	30

Perceptions of practical application were equally encouraging. A total of 21 respondents strongly agreed and 9 agreed that the training outcomes would support better financial management, particularly in separating cash flow, improving bookkeeping practices, and making informed business decisions. Likewise, 22 strongly agreed and 8 agreed that the program strengthened their ability to leverage digital marketing tools, especially Google Business Profile and SEO optimization, for broader market reach. Furthermore, 21 participants strongly agreed and 9 agreed that the intervention would positively contribute to their business revenue growth.

Importantly, sustainability emerged as a central theme in participant feedback. Almost all respondents (24 strongly agreed and 6 agreed) emphasized the need for continuous mentoring and follow-up support from the university team. This reflects the strong demand among artisans for long-term capacity building in both digital adoption and financial literacy.

Qualitative feedback provided additional depth, with participants suggesting future topics such as advanced soft skills training, marketplace optimization, promotional video creation for social media, entrepreneurship development, and even the integration of Artificial Intelligence (AI) into digital marketing strategies. Participants also described the program as “a valuable new experience,” “very helpful knowledge,” and “memorable because it can be applied immediately.” The evaluation data confirmed that the program not only met its short-term learning objectives but also fostered a strong desire for sustained collaboration. The combination of high agreement levels, positive qualitative impressions, and explicit calls for follow-up training underscores the importance of embedding such community service initiatives into longer-term capacity development strategies for MSMEs.

Sustainability

The sustainability stage was aimed to ensure that the outcomes of the program extended beyond the initial training sessions and could generate long-term impact for the participating MSMEs. During this phase, the program team engaged in follow-up discussions with AHJ Bojonegoro and the artisans to explore mechanisms for continuous support. Nearly all participants (24 strongly agreed and 6 agreed) emphasized the necessity of ongoing mentoring. It underscores the strong demand for consistent guidance in maintaining digital adoption and strengthening financial literacy.

As part of this stage, the university team committed to monitoring the progress of business development among the artisans. This included tracking the utilization of Google Business Profile, evaluating the consistency of financial bookkeeping practices, and encouraging the integration of digital financial applications into daily operations. Furthermore, sustainability was promoted by sharing the program’s results on social media and in regional media publications. It was aimed at raising awareness and inspiring other MSMEs to adopt similar practices.

To further strengthen continuity, participants suggested advanced training modules on topics such as marketplace optimization, promotional video production, entrepreneurship skills, and AI-based digital marketing strategies. These suggestions provide valuable input for the design of future community service initiatives. By aligning the sustainability stage with both immediate follow-up actions and future-oriented training, the program demonstrated a proactive approach in ensuring that the benefits of the intervention would be preserved and expanded within the AHJ Bojonegoro community.

Discussion

The Handicraft 4.0 program shows how structured interventions in digital marketing and financial literacy can effectively strengthen the capacity of MSMEs in Bojonegoro. The results indicate that well-

designed community service initiatives not only provide immediate knowledge gains but also foster long-term potential for sustainable business transformation. The significant improvements observed across participants confirm that training tailored to artisans' real business contexts can address structural challenges and enhance competitiveness in both local and global markets.

One of the most notable contributions of this program lies in bridging gaps in digital competitiveness. Prior to the training, most participants lacked structured knowledge of digital marketing and had not fully utilized tools such as Google Business Profile. The intervention enabled participants to create, verify, and optimize their business profiles while learning to apply simple but effective SEO strategies. This finding aligns with previous research (Hidayat et al., 2025; Singh & Kalia, 2020) showing that digital adoption among MSMEs is often constrained by limited technical knowledge and lack of mentoring. By integrating lectures with guided practice and mentoring, the program overcame these barriers and demonstrated tangible outcomes in expanding artisans' online visibility.

Equally important were the gains in financial literacy, which directly contribute to MSMEs' sustainability. Participants improved their ability to separate personal and business finances, maintain systematic bookkeeping, and prepare simplified financial statements. These results support prior findings (Harnida et al., 2024; Mishra & Kiran, 2025; Rohaeni et al., 2025) that financial literacy is a critical determinant of business resilience. By introducing user-friendly digital bookkeeping applications, the program provided participants with tools to strengthen transparency and accountability, which are essential for long-term sustainability and access to external financing.

A further contribution of the program is its inclusive impact, particularly in closing capability gaps among participants with lower baseline knowledge. Analysis showed a strong negative correlation between pre-test scores and learning gains, indicating that those with weaker initial knowledge benefited most. This confirms the value of the intervention in reducing disparities and ensuring that training reaches the most vulnerable groups, echoing the conclusions of Yanto et al. (2022) on the critical role of combined digital and financial literacy training during times of economic transition.

The positive feedback provided by participants further validates the program's design and delivery. All respondents rated the training as clear, useful, and applicable, with more than 80 percent strongly agreeing on the effectiveness of both the content and the mentoring approach. The high engagement observed during discussions and Q&A sessions reflected participants' enthusiasm to directly address challenges in their businesses. Importantly, nearly all participants highlighted the need for sustained mentoring and advanced training, signaling strong demand for long-term support. Suggested future topics, such as marketplace optimization, promotional video production, entrepreneurship development, and AI-driven marketing, indicate a readiness to further elevate digital and financial competencies.

The outcomes of this program generated tangible and sustainable benefits for members of AHJ Bojonegoro. The enhancement of digital marketing competencies, particularly through the establishment and optimization of Google Business Profiles, directly expanded artisans' market visibility, customer engagement, and access to new demand channels. Those supporting SDG 8 (Decent Work and Economic Growth) at the micro-enterprise level. Improved financial literacy, including cash flow separation and routine bookkeeping, strengthened partners' ability to monitor business performance, manage liquidity, and make informed decisions, contributing to greater operational stability and productivity. The adoption of digital platforms and financial tools further aligns with SDG 9 (Industry, Innovation, and Infrastructure) by fostering technological readiness and innovation capacity among local handicraft MSMEs. Moreover, by professionalizing the management of locally rooted craft enterprises without diminishing their cultural identity, the program reinforces SDG 12 (Responsible Consumption and Production), enabling

partners to sustain traditional handicraft production while adapting to contemporary market standards. Collectively, these impacts position AHJ Bojonegoro members to achieve more resilient, competitive, and sustainable business practices in the long term.

The findings collectively present solid evidence that combined training in digital marketing and financial literacy can result in statistically significant and educationally relevant improvements in MSME capacity. More importantly, the intervention was especially impactful for artisans with limited prior knowledge, highlighting its role in reducing inequalities within the business community. By embedding the program within the framework of AHJ Bojonegoro, a strong community-based organization, the initiative also demonstrated the importance of institutional collaboration in ensuring sustainability. Future work should expand the scale of such programs, employ longitudinal monitoring to assess long-term business impacts, and incorporate advanced topics to address evolving digital and financial challenges. In this way, the Handicraft 4.0 program not only provided immediate solutions but also laid a foundation for sustainable growth, equity, and innovation within Indonesia's creative economy sector.

4. CONCLUSION AND RECOMMENDATIONS

The Handicraft 4.0 community service program was designed to enhance the digital marketing and financial management capacities of AHJ Bojonegoro members through systematic training and mentoring. The program successfully achieved its objectives, as reflected in significant improvements in participants' ability to create and optimize Google Business Profiles, implement SEO strategies, separate personal and business cash flows, maintain systematic bookkeeping, and using digital financial applications. The evaluation shows significant variations, with post-test scores showing improvement compared to pre-test results. Participants' feedback also confirmed the clarity, relevance, and applicability of the training. Overall, the program not only enhanced artisans' competitiveness in the digital economy but also provided a strong foundation for sustaining business growth and long-term empowerment within the creative economy sector.

Although the program produced beneficial results, yet there were a few issues that need to be fixed. The relatively short duration restricted the depth of material coverage, advanced competencies include marketplace optimization and content creation were not fully addressed, and systematic follow-up mechanisms for long-term adoption were limited. Based on these constraints, several recommendations are proposed for future initiatives. First, extending the duration and frequency of training will allow more intensive mentoring and skill consolidation. Second, stronger follow-up and monitoring mechanisms should be established to evaluate the sustained application of digital marketing and financial management practices. Third, collaboration with local government, private sector actors, and financial institutions needs to be strengthened to secure continuous support, access to funding, and wider market opportunities. Finally, creating peer-learning and knowledge-sharing forums within AHJ Bojonegoro will ensure the sustainability of capacity building efforts and foster community-driven development.

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