

Analysis of MSME Actors' Experience in Digital Financial Literacy Mentoring of the MANTAP MSME Program in Malang City

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Article Info :

Received:

28/11/25

Revised:

14/06/26

Accepted:

16/06/26

ABSTRACT

This study aims to explore the experiences of micro and small business owners in Malang City who participated in the UMKM MANTAP digital financial literacy mentoring program, focusing on the transformation process, adoption barriers, and the meanings participants constructed from the program. A qualitative phenomenological approach was employed, involving 15 participants who had completed at least 75% of the program sessions and actively implemented digital financial practices in their businesses. Data were collected through in-depth semi-structured interviews, participatory observation, and document review, and were subsequently analyzed using phenomenological thematic analysis. The findings identified three main themes: (1) digital financial literacy transformation, which occurred gradually through the stages of confusion, exploration, and internalization; (2) drivers of adoption, including peer support among MSME actors, continuous mentoring, and direct economic incentives; and (3) barriers to adoption, including limited internet connectivity, complexity of fintech verification processes, and concerns over digital transaction security. Most participants reached the internalization stage within three to four months, with an average operational time savings of 2–3 hours per day with a substantial reduction in record-keeping errors. This study concludes that the success of MSME digital financial literacy transformation relies on experiential learning approaches and community support, rather than technical training alone. These findings offer practical implications for designing more contextual and sustainable digital financial literacy mentoring programs within Islamic higher education institutions and Indonesian MSME communities.

Keywords: *Digital financial literacy, Micro-Enterprises, Community transformation, Mentoring programs, Digital payment adoption.*



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INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) constitute the backbone of the Indonesian economy. According to data from the Ministry of Cooperatives and SMEs of the Republic of Indonesia [1], there are more than 65 million MSMEs that contribute approximately 60% to the national Gross Domestic Product (GDP) and absorb more than 97% of the workforce. This strategic position establishes MSMEs as a key pillar of the national economy, particularly in maintaining economic stability and reducing unemployment. However, amid the rapid development of digital technology, MSME actors face significant new challenges, particularly in digital-based financial management.

Digital financial literacy refers to an individual's ability and understanding in utilizing digital technology to manage finances, encompassing cashless transactions, the use of online financial services, and application-based financial record-keeping. According to the National Survey of Financial Literacy and Inclusion conducted by the Financial Services Authority (OJK), Indonesia's financial literacy index reached 49.68% in 2022, indicating that a substantial proportion of the population still lacks adequate financial knowledge and skills, including those related to digital financial services [2]. As a result, many MSME actors continue to rely on manual record-keeping, have not utilized digital banking services, and face difficulties accessing fintech platforms for capital or investment purposes. This condition makes MSMEs vulnerable to financial mismanagement, missed market opportunities, and even business failure [3].

A similar condition is found in Malang City, which has an active MSME ecosystem comprising 21,270 registered business actors as of mid-2024, dominated by the culinary, fashion, handicraft, and agricultural sectors [4], [5]. Although the Malang City Government has implemented various support programs covering approximately 60% of MSMEs, strengthening digital financial literacy remains an

urgent need due to the complexity of technology and the limited understanding of digital transformation among business actors [5]. In response to these challenges, the UMKM MANTAP Program (Maju, Adaptif, dan Tangguh dalam Pengelolaan / Advanced, Adaptive, and Resilient in Management) was introduced as a digital financial literacy mentoring initiative, encompassing training in QRIS, e-wallets, mobile banking, financial record-keeping applications, and access to capital through fintech platforms using an experiential learning approach.

Although numerous similar programs have been launched, their evaluations have generally focused on quantitative outcomes such as income growth or technology adoption rates. Affandi [6] found that digital adoption and financial literacy contribute positively to the performance and sustainability of Indonesian MSMEs. Meanwhile, Mulyana [7] examined fintech adoption among MSMEs and identified perceived usefulness, trust, and ease of use as key determinants influencing the adoption of digital financial services. However, these studies primarily focused on measurable outcomes and technological determinants, while paying limited attention to the subjective experiences of MSME actors throughout the mentoring process. Consequently, phenomenological studies exploring how MSME actors experience, interpret, and internalize digital financial literacy remain scarce.

This study employs a phenomenological approach based on Moustakas [8], [9] and a theoretical framework of digital financial literacy encompassing knowledge, skills, and attitudes [8], strengthened by Ajzen's Theory of Planned Behavior [10] and Checkoway's [11] perspective on community transformation. This study aims to comprehensively explore the experiences of MSME actors in Malang City within the UMKM MANTAP Program, including understanding the meaning of the digital transformation they have undergone, identifying the factors that drive and hinder digital financial adoption, and formulating recommendations for a more effective and sustainable mentoring model based on participants' real experiences.

METHOD

Type and Approach of Research

This study employs a qualitative approach with a descriptive phenomenological design. The qualitative approach was selected as it aligns with the research objective of gaining an in-depth understanding of MSME actors' experiences from their own perspectives [12]. The phenomenological design is applied based on Moustakas [8], which aims to uncover the structure and essence of individuals' lived experiences of a phenomenon. In this study, the phenomenon under investigation is the process of digital financial literacy transformation experienced by MSME actors participating in the UMKM MANTAP Program in Malang City [13].

Participants and Selection Technique

The study involved 15 MSME actors selected through purposive sampling based on the following criteria: (1) had attended at least 75% of the UMKM MANTAP Program sessions, (2) actively implemented at least one digital financial instrument (QRIS, e-wallet, or financial record-keeping application) in their business operations, and (3) were willing to participate in in-depth interviews and on-site observations. These criteria were established to ensure that participants possessed sufficient and relevant experience pertaining to the focus of the study. Data saturation was determined based on the principle of theoretical saturation, that is, when data from interviews and observations no longer yielded new meaningful themes or information, which was reached at the 13th participant and confirmed up to the 15th participant.

Data Collection Techniques

Data collection was conducted through three complementary methods. First, in-depth semi-structured interviews were conducted with all 15 participants. Each session lasted between 60 and 90 minutes and was held at a location of the participant's choosing, such as their place of business or a café, in order to create a comfortable atmosphere. Interviews were audio-recorded with participants' consent and accompanied by detailed field notes. The interview guide was developed around three main themes: (a) initial experiences and barriers in encountering digital financial technology; (b) the learning process and changes experienced during mentoring; and (c) the meaning and impact of the program on business management. Sample questions included: "How did you feel the first time you used QRIS or an e-wallet in your business?", "What was most helpful to you in the process of learning digital financial

technology?", and "How has this program changed the way you manage your business finances on a daily basis?" Second, participatory observation was conducted at each participant's place of business over a period of two to four weeks, with visits made twice per week per location.

The observation focused on the actual practice of using digital financial technologies, including transactions via QRIS, the operation of digital wallets, the use of mobile banking, and application-based financial record-keeping. Field notes were systematically compiled to document the observed context, behaviour, and interactions. Third, document review was conducted on program materials, including training modules, participant progress reports, electronic transaction records, and administrative documentation from the program organizers. These document data were used to verify and corroborate the findings derived from the interviews and observations.

Data Analysis Techniques

Data analysis was conducted using Moustakas's [8] phenomenological approach integrated with the interactive analysis model of Miles, Huberman, and Saldaña [14].

First, all interview recordings were transcribed verbatim, after which the researcher performed epoché (bracketing) to set aside personal assumptions and preconceptions so that the analysis remained grounded in participants' perspectives. Second, horizontalization was carried out, involving the identification and listing of all significant statements from each interview transcript without assigning a hierarchy of value to any particular statement.

Third, these statements were grouped into meaning units based on thematic similarity, then coded using open coding, followed by axial coding to identify relationships between categories, and concluded with selective coding to determine the core themes. Fourth, textural descriptions were developed to depict what participants experienced based on their direct narratives, alongside structural descriptions explaining how and why these experiences occurred within their surrounding contexts and conditions. Fifth, the textural and structural descriptions were synthesized to produce an essence formulation, namely a comprehensive description of the core meaning of the digital financial literacy transformation experience that applies universally across all participants.

Data Trustworthiness

The trustworthiness of this study was maintained through four strategies. Member checking was conducted by providing each participant with a summary of the interpreted findings for accuracy confirmation prior to the final analysis. Triangulation was conducted by comparing data obtained from three sources, namely interviews, observations, and documents, as well as by comparing the researcher's interpretations with the results of member checking. Peer debriefing was conducted through periodic discussions with fellow researchers experienced in qualitative research to examine the consistency and objectivity of the interpretations. An audit trail was maintained by thoroughly documenting the entire data collection and analysis process, allowing it to be traced and verified by other parties [15].

RESULTS AND DISCUSSION

This study involved 15 MSME actors in Malang City who actively participated in the UMKM MANTAP Program. The participants consisted of 10 women (67%) and 5 men (33%), aged between 28 and 52 years, representing the culinary (53%), fashion (27%), handicraft (13%), and processed agriculture (7%) sectors. Phenomenological analysis of the interview, observation, and document data yielded three main themes: digital financial literacy transformation as a gradual process, drivers and barriers to adoption, and the impact on operational efficiency.

Digital Financial Literacy Transformation as a Gradual Process

The transformation of digital financial literacy occurred through three sequential stages. In the confusion stage, all participants expressed anxiety and uncertainty when first confronted with digital financial technology. This barrier was not merely cognitive but also emotional in nature, as expressed by the following participant:

"I used to feel anxious about using QRIS, thinking it was difficult and worrying about making mistakes. There were times I almost gave up." (P3, female, 42 years old)

In the exploration stage, participants began actively experimenting with financial application features within a guided environment. A sense of safety in trying and making mistakes proved to be a critical condition for building confidence:

"After hands-on practice with someone guiding me, I dared to try. If I made a mistake, it was corrected right away. It wasn't as complicated as I thought." (P7, male, 35 years old)

In the internalization stage, technology had become integrated into daily operational routines. Most participants reached this stage within three to four months. The following statement reflects genuine internalization, rather than mere habitual use:

"If I don't use the record-keeping app now, something feels missing. It has become a daily routine, done automatically." (P11, female, 44 years old)

Differences in the speed of transformation were found based on age: participants under 40 years old reached internalization more quickly, while those over 45 years old required more intensive support, although both groups ultimately achieved an adequate level of competence.

Drivers and Barriers to Adoption

Three main drivers were identified. First, peer learning through an organically formed WhatsApp group proved to be an effective space for sharing practical knowledge. Second, continuous mentoring provided participants with a sense of security to keep experimenting. Third, directly perceived economic incentives strengthened the motivation to use the technology, as confirmed through participants' digital transaction records during observation:

"After installing QRIS, the number of customers increased because many were happy to pay cashlessly. My income rose by about 20% in the first three months." (P4, male, 36 years old)

On the other hand, three major barriers were identified. Limited internet connectivity confirmed through field observations in traditional markets was a structural barrier beyond the control of individual business actors. The complexity of fintech verification processes caused some participants to nearly give up midway. Concerns about digital transaction security also continued to influence usage patterns even after participants had adopted the technology:

"I'm still worried about my account being hacked. That's why I don't keep too much balance in my digital wallet." (P12, male, 50 years old).

Impact on Operational Efficiency

All participants reported improved operational efficiency, as confirmed through observation and member checking. The average time saved ranged from two to three hours per day. Participants also reported a noticeable reduction in record-keeping errors after adopting digital financial tools, while most participants expressed increased confidence in managing their business finances as a dimension of psychological empowerment that extends beyond mere technical skills. The following table presents a summary of the research findings from the UMKM MANTAP Program.

The findings of this study indicate that the digital financial literacy transformation among MSME actors is a gradual, community-based, and experience-rooted process. This characteristic constitutes the main theoretical contribution of this study, distinguishing it from previous studies that have generally measured program success through quantitative indicators alone.

These findings are consistent with Affandi [6], who reported that digital adoption and financial literacy positively influence MSME performance and sustainability. However, unlike their quantitative approach, the present study reveals the experiential processes through which MSME actors gradually develop confidence and integrate digital financial practices into their daily routines. Similarly, while Mulyana [7] emphasized technological determinants such as trust and perceived usefulness, this study highlights the equally important role of continuous mentoring and peer support in facilitating digital financial adoption.

The three transformation stages identified confusion, exploration, and internalization correspond to Kolb's [16] Experiential Learning cycle. The confusion stage reflects an initial concrete experience. The exploration stage then represents reflective observation and active experimentation, while the internalization stage marks the abstract conceptualization that has become integrated into daily practice. Within the framework of Ajzen's [10] Theory of Planned Behaviour, changes in attitude,

subjective norms, and perceived behavioural control toward technology occur gradually through the accumulation of positive experiences and social support, rather than as a result of mere information exposure. These findings indicate that mentoring programs need to consciously facilitate change across all three components. Furthermore, the differences in adaptation speed based on age align with Prensky's [17] framework of digital natives and digital immigrants; however, this study adds an important finding that such a gap can be bridged through inclusive and sustained mentoring [18].

Table 1. Summary of research findings from the UMKM MANTAP program

Finding Category	Sub-Category	Key Result	Participant Quote
Digital Literacy Transformation	Confusion Stage	Initial anxiety and uncertainty toward technology	"I used to feel anxious about using QRIS" (P3)
	Exploration Stage	Trying features with facilitator guidance	"After hands-on practice, I dared to try" (P7)
	Internalization Stage	Technology becomes a daily routine	"If I don't use the app, something feels missing" (P11)
	Peer Learning	WhatsApp group as a space for practical sharing	"Just ask in the group, someone will help" (P2)
Drivers	Continuous Mentoring	Facilitators always available	"The mentor can be contacted anytime" (P9)
	Direct Economic Incentives	Increased customers and income	"Income rose by about 20%" (P4)
	Internet Limitations	Structural barrier, delayed transactions	"The connection is very slow when the market is busy" (P5)
	Fintech Verification Complexity	Repeated KYC process	"Had to upload documents multiple times" (P8)
Barriers	Security Concerns	Limiting digital wallet balance	"I'm afraid of being hacked" (P12)
	Time Savings	Average savings of 2–3 hours/day	"I used to spend 2 hours on manual record-keeping" (P6)
	Reduced Errors	Digital records are more accurate	—
	Entrepreneurial Confidence	Increased confidence among business actors	"I can see which products sell best" (P10)

The significant role of peer learning in the adoption process underscores the relevance of Wenger's [19], [20] concept of Community of Practice, in which the informal community organically formed through a WhatsApp group functioned as a learning space that extended beyond the program's formal sessions. This community also represents a form of social capital as conceptualized by Putnam [21], [22], encompassing networks of trust and reciprocity that serve as the glue for coordination. The program's success in building this learning community is further consistent with Checkoway's [11] theory of community transformation, which emphasizes that sustainable change requires the active involvement of community members, rather than the passive receipt of benefits.

The barriers identified should be understood as reflections of an unprepared digital ecosystem, rather than as individual failures. Within Rogers's [23], [24] Diffusion of Innovation framework, limited internet infrastructure constitutes a barrier at the social system level that cannot be addressed solely through improvements in individual competence. Meanwhile, concerns about transaction security

reflect limited trust in digital financial systems, which, according to Gefen [25], significantly influences individuals' intentions to adopt and use financial technology. These findings suggest that mentoring program curricula should substantively integrate digital security education, while also fostering cross-stakeholder collaboration to address structural barriers.

The improvements in operational efficiency and self-confidence reported by all participants reflect a multidimensional form of empowerment. Drawing on Zimmerman's [26] framework of psychological empowerment, digital financial literacy contributes to enhanced self-efficacy (intrapersonal), expanded awareness of digital opportunities and risks (interactional), and engagement in learning communities (behavioural). These findings enrich the conceptualization of digital financial literacy not merely as a technical capability, but as an instrument of empowerment with social and psychological dimensions a perspective that has thus far received limited attention in the literature on MSME mentoring programs in Indonesia, as also highlighted by Morgan et al. [8], who emphasized the need for a holistic and contextual approach to financial literacy.

CONCLUSION

This study demonstrates that the digital financial literacy transformation among MSME actors participating in the UMKM MANTAP Program in Malang City unfolds as a gradual process progressing through the stages of confusion, exploration, and internalization underpinned by community support, continuous mentoring, and directly perceived economic incentives. Theoretically, these findings reinforce the relevance of Kolb's [16] Experiential Learning cycle and Ajzen's [10] Theory of Planned Behavior in explaining the adoption of digital financial technology, while also indicating that Community of Practice [20] and social capital [21] play important roles as supporting mechanisms in this process. The barriers identified, namely limited internet infrastructure, the complexity of fintech verification procedures, and concerns regarding transaction security, indicate that the readiness of the broader digital ecosystem significantly influences the success of digital financial adoption at the individual level. Practically, these findings imply that digital financial literacy mentoring programs need to be designed with attention to the transformation stages experienced by participants, to facilitate structured peer learning, and to integrate digital security education as a core component of the curriculum, rather than merely as supplementary material.

This study has several limitations that should be considered when interpreting its findings. First, the number of participants was limited to 15 MSME actors who had completed at least 75% of the program sessions, meaning that the experiences of business actors who failed or discontinued technology adoption were not captured. Second, the study was conducted within a relatively short period after the program ended, so the long-term sustainability of the transformation cannot yet be ascertained. Third, this study involved MSME actors from only one city, meaning that its findings cannot be broadly generalized to MSME contexts in other regions with different digital ecosystem characteristics. Future research is recommended to conduct longitudinal studies to observe the sustainability of digital financial literacy transformation over a longer period, to explore the experiences of business actors who were unsuccessful in adopting the technology, and to incorporate the perspectives of facilitators and other stakeholders within the digital ecosystem in order to gain a more comprehensive understanding of the dynamics of MSME mentoring.

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