Strengthening Financial Planning for MSMEs: A Capacity-Building Program on Investment Risk and Illegal Lending

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ABSTRACT

Micro, Small, and Medium Enterprises (MSMEs) in Indonesia face persistent challenges in managing financial investment risks and accessing appropriate funding sources, particularly due to the prevalence of illegal online lending. These constraints not only undermine business resilience but also highlight the limited integration of financial literacy into effective financial planning. This study aims to strengthen the capacity of MSMEs in developing responsible financial planning and investment strategies, by incorporating financial literacy as a foundational element for improving risk awareness and decision-making. The program was implemented through mentoring activities involving lectures and technical assistance with members of the Sungai Jawi Women Farmers Group, who represent MSME actors in the food and beverage sector. Evaluation results demonstrate that the training significantly improved participants' understanding of financial planning, including budgeting, investment decisions, and awareness of the risks of illegal lending. Beyond improving knowledge and attitudes, the program contributed to enhancing practical skills in preparing financial plans and allocating resources more prudently. These findings suggest that integrating financial literacy into structured financial planning programs can provide meaningful implications for policymakers, financial regulators, and community organizations in strengthening MSME resilience and sustainability.

Keywords: Risk; financial investment; illegal lending; financial planning

INTRODUCTION

The development of Micro, Small, and Medium Enterprises (MSMEs) plays a pivotal role in driving Indonesia's economic growth, contributing 61.1% to the country's Gross Domestic Product (GDP) in 2023 (DJPB Kemenkeu 2024). Despite their substantial contribution, MSMEs continue to face barriers in accessing adequate financing, particularly due to low levels of financial literacy. According to the National Survey on Financial Literacy and Inclusion, Indonesia's financial literacy index in 2022 was only 49.68%, compared to a financial inclusion index of 78.2% (Otoritas Jasa Keuangan 2023). This significant gap highlights that while access to formal financial services has expanded, the ability of individuals and MSME actors to effectively understand and utilize these services remains relatively limited. The problem is particularly evident in both rural and peri-urban areas, where financial literacy rates are still below optimal levels.

Preliminary findings from Agrowisata Sungai Jawi Village, Kalidoni District, reveal that many Micro and Small Enterprises (MSEs) are aware of the rising cases of fraudulent investments and illegal online lending. However, their ability to critically evaluate the risks, identify high-risk financial products, and conduct proper financial planning remains weak. This vulnerability not only increases their exposure to financial risks but also constrains their capacity to support long-term business development. In addition, empirical studies highlight that MSMEs often lack financial planning skills, leading to increased operational risk and suboptimal performance (Ferreira de Araújo Lima et al. 2020; Haekal Yunus et al. 2022).

This challenge is not only experienced in developing countries like Indonesia but also in developed countries such as those in Europe (Ferreira de Araújo Lima et al. 2020). The high incidence of fraudulent investments and illegal online lending has become a topic of significant interest among both practitioners and academicians. These two issues are rooted in the disparity between the levels of financial literacy and financial inclusion (Rani & Jain 2023). Empirical evidence of the imbalance between financial literacy and inclusion in Indonesia has sparked further discussion, despite data that indicates a gradual increase in the public's financial literacy over the years. The gap between financial literacy and inclusion, along with the low financial literacy levels among Micro, Small, and Medium Enterprise (MSME) actors which contributes to the growing number of victims of fraudulent investments and illegal online loans further supports the argument for the continued need for ongoing financial education initiatives.

The issue of MSME funding sources has also been a subject of extensive discussion, particularly in regions such as South Sumatra Province. Data from the South Sumatra Cooperative and MSME Office show that 40% of the 2.2 million MSMEs in the region are categorised as underbanked. This shows that 40% of MSMEs in South Sumatra still have limited access to capital, particularly from banking institutions. Therefore, collaboration between institutions, including both practitioners and academics, is essential to address these challenges in an unbiased and non-discriminatory manner.

To provide a stronger theoretical foundation, this study adopts the Theory of Planned Behaviour (TPB) as its analytical lens. TPB explains that behavioural intention is influenced by attitudes, subjective norms, and perceived behavioural control (Ajzen 2020). In the context of MSMEs, financial decision-making such as investment choices or borrowing decisions is formed not only by knowledge and awareness but also by social pressures and perceived ability to manage financial risks. Alongside TPB, the concept of risk tolerance is also relevant, as it reflects the extent to which individuals or business actors are willing to take financial risks in pursuit of returns (Grable 2000). Integrating TPB with risk tolerance provides a comprehensive framework to understand MSME financial behaviour, particularly their vulnerability to fraudulent investments and illegal lending.

The main purpose of this study is to analyse the financial literacy levels of MSMEs in Agrowisata Sungai Jawi Village, assess their awareness and risk tolerance in investment and financing decisions, and evaluate the effectiveness of community service programs in enhancing responsible financial planning capacity. This research employs the Theory of Planned Behaviour (TPB) as its theoretical foundation, with the assumption that MSMEs' financial decision-making behaviour is influenced by three key factors: attitudes toward risk and financial management, subjective norms reflected in social influences from the surrounding environment or peer groups, and perceived behavioural control, which represents entrepreneurs' confidence in their ability to manage risks and utilize financial services. By integrating TPB with the concept of risk tolerance, this study seeks to explain how knowledge, awareness, and social factors shape MSMEs' financial intentions and behaviours, particularly their vulnerability to fraudulent investments and illegal lending.

The significance of this study resides in its dual theoretical and practical contributions. From a theoretical perspective, it advances the body of knowledge by integrating the Theory of Planned Behaviour (TPB) and the concept of risk tolerance into the analysis of MSME financial behaviour in the Indonesian context. From a practical standpoint, the study offers valuable implications for policymakers, financial regulators, and local institutions in formulating targeted interventions such as financial education initiatives, partnerships with cooperatives and banking institutions, and enhanced regulatory oversight of illegal lending practices that can reinforce MSME resilience and long-term sustainability. By addressing these issues, the research contributes to the development of a more inclusive, stable, and resilient financial ecosystem for MSMEs in Indonesia.

LITERATURE REVIEW

FINANCIAL INVESTMENT RISK

Financial investment risk refers to the uncertainty associated with future investment outcomes and the potential for incurring losses (Yang 2024). The risks mentioned could emerge form variously significant factors, including market volatility, economic downturns, and suboptimal investment decisions (Chu 2021). Failure to recognise and manage such risks can lead to significant losses, particularly for small and medium-sized enterprises (SMEs), which typically runs on low liquidity, face high market uncertainty, and have restricted resources (Gupta et al. 2024). Nevertheless, risk-taking is often an intentional strategy undertaken by firms due to the potential returns associated with it. Business risks are generally categorised into pure and speculative risks. Speculative risks include possibilities of both gains and losses, is particularly relevant in financial investment decisions and are manageable effectively (Hanafi, 2016).

Risk management needs a prerequisite thorough risk analysis and evaluation, enabling investors to mitigate potential losses when making financial investment decisions. While the prospect of returns is a primary factor influencing investment decisions, the risk of loss is equally important and must not be overlooked. Financial investment instruments with high price volatility, such as stocks, inherently carry greater risk compared to fixed-income instruments like bonds and mutual funds (Ekananda 2018). Therefore, stock investments are generally not recommended for novice investors or those with low levels of financial literacy (Fahmi 2018). In the context of investment and portfolio management, risk is defined as the deviation between the expected return and the actual return realized by the investor (Bodie et al. 2018). Accordingly, the level of risk can be assessed or even computed using the standard deviation of expected and realized returns. This allows financial investment risk to be measured and mitigated. If legal financial investment products carry inherent risks, then investments whose legal status is uncertain pose even greater potential danger.

The same principle applies when individuals or businesses decide to utilise debt as a source of funding. The determining factors include the cost of capital and the risk of default, both of which can negatively impact business continuity (Gleibner 2019). Therefore, such risks must be thoroughly scaled and analysed during the planning

stage as part of a comprehensive risk management strategy. Failure to manage these risks can lead to financial distress, particularly for MSMEs, which typically operate with limited capitalization, liquidity, and resources (Rago et al. 2023). The situation is further exacerbated when the chosen funding source is an illegal loan, often characterised by the utilisation of digital(online) platforms that offer easy access but impose high interest rates and burdensome repayment schemes on borrowers (Syarvina 2022).

Over the past decade, research has evolved from focusing primarily on financial literacy and access to finance toward examining attitudes toward risk and organizational risk tolerance as critical factors influencing MSME sustainability and performance (Masdupi et al. 2024; Gusaptono et al. 2023). The practical significance is evident in the fact that MSMEs constitute the largest share of Indonesia's economic activity yet still proceeds to face persistent challenges in effectively managing financial risks (Hadiat & Anjani 2024; Hanggraeni et al. 2019). This underscores the need for a deeper understanding of risk tolerance as a determinant of MSME resilience and growth (Dewi & Sari 2024; Hs & Ariani 2023).

Studies conducted by (Masdupi et al. 2024; Aeni et al. 2024) demonstrated a positive correlation between risk tolerance and long-term business sustainability, mediated by financial literacy and effective risk management. Furthermore, research by (Aeni et al. 2024; Gusaptono et al. 2023; Moreno 2023) reveals that higher levels of risk tolerance positively influence investment, financing, and operational decisions, while also fostering innovation and growth. Conversely, other studies report weak or insignificant effects of risk attitudes on certain financial decisions, such as investment choices, highlighting the role of behavioural factors such as overconfidence (Purwidianti et al. 2024; Sulistianingsih & Santi 2023).

Although prior research has established links between financial literacy, risk tolerance, and MSME sustainability, much of the work remains theoretical or survey-based, with limited practical application at the community level—particularly among MSMEs in rural or semi-urban areas. Moreover, despite continuous improvements in Indonesia's financial literacy, the gap with financial inclusion remains substantial (OJK 2023). This condition leaves many MSME actors vulnerable to high-risk investment products and illegal lending, while structured training programs remain limited.

At the same time, the literature reflects mixed findings regarding the influence of risk attitudes on financial decision-making. While some studies identify significant effects, others find weak or inconsistent outcomes, often shaped by behavioural biases such as overconfidence. These inconsistencies highlight the importance of programs that go beyond theoretical knowledge to include practical skills in risk management, an understanding of behavioural biases, and heightened awareness of the dangers of illegal lending and investment schemes. Accordingly, this study aims to provide both academic contributions and practical solutions to strengthen the resilience and sustainability of MSMEs in Indonesia.

ILLEGAL ONLINE LENDING

Online lending represents a recent innovation in the financial sector, leveraging digital technology to provide loan services through online platforms (Sartika & Larasati 2023). This system enables consumers to access financing facilities without the need for face-to-face meetings. The loan process from application and administrative approval to fund disbursement is conducted entirely online, without direct interaction between the lender and the borrower. Digital lending platforms have revolutionised the way individuals obtain funds by offering fast and convenient access. This type of loan has gained significant popularity due to its simple and rapid application and approval processes, particularly in countries such as Indonesia (Nurrachma Maharani et al. 2024). However, the rise of online lending has also introduced various legal and ethical issues, especially concerning consumer protection and debt collection practices. Illegal online lending often targets micro, small, and medium enterprises (MSMEs) in urgent need of quick funds, many of whom are unaware of the associated terms and conditions. According to the Financial Services Authority (OJK 2022), illegal lenders functions without proper authorisation and would often employ unethical and unlawful collection methods while imposing excessive interest rates and penalties. Educating MSMEs on the dangers of illegal online loans is essential to prevent them from falling into financially and psychologically harmful lending schemes.

FINANCIAL PLANNING

Financial planning is the process of designing, managing, and monitoring the efficient allocation of an enterprise's financial resources (Yeo et al. 2024). Micro, small, and medium-sized enterprises (MSMEs) that implement sound financial planning tend to be more resilient in the face of economic uncertainty (Ruscitasari et al. 2022). Financial planning is a critical component for the success and sustainability of MSMEs (Meenakshi & Ranjan 2024). It involves budget preparation, resource allocation, and risk management elements that are essential for navigating economic challenges and ensuring long-term business viability. The implementation of accurate budgeting practices and regular financial performance evaluations is vital to maintaining financial health (Dharmawan et al. 2025).

METHODOLOGY

This study employs a qualitative approach, an appropriate method as the research focuses on exploring participants' understanding, perspectives, and behavioural changes related to financial literacy, investment risk awareness, and financial planning practices. A qualitative design allows for deeper insights into the experiences of Micro, Small, and Medium Enterprises (MSMEs), particularly in community-based settings where contextual factors strongly influence financial decision-making.

The program evaluation follows The Kirkpatrick Model, a widely adopted framework for assessing training and educational interventions. This model evaluates four levels: (1) Reaction – participants' satisfaction with the program, (2) Learning – the extent to which participants acquire knowledge and skills, (3) Behaviour – the application of acquired knowledge in financial decision-making, and (4) Results – the broader impact on MSME sustainability and financial resilience. Using this model ensures a systematic and rigorous evaluation aligned with best practices in similar community-based studies.

The target audience consisted of 20 MSMEs managed by the Women Farmers Group (Kelompok Tani Wanita) in Sungai Jawi, Agrowisata Village, Kalidoni District. This group was selected purposively because of its active role in community-based economic activities and its urgent need for improved financial literacy. While the findings may not be generalized to all MSMEs, the results provide valuable insights into the challenges faced by community-based enterprises and serve as a foundation for developing broader financial education initiatives. Ethical considerations were also addressed by obtaining informed consent, ensuring confidentiality, and emphasizing the voluntary nature of participation.

IMPLEMENTATION METHOD

The implementation of this community engagement activity was conducted through a participatory mentoring approach, combining lectures, tutorials, discussions, and simulations. These methods were selected to enhance both theoretical comprehension and practical skills among participants (Broussard 2011). The community service program targeting MSMEs under the Kelompok Tani Wanita in Sungai Jawi, Kalidoni District began with an initial discussion involving a team of lecturers and student representatives with local district leadership. This discussion highlighted a major concern: a widespread of illegal offers mainly related to subjects such as financial investments and online loans many of which have been dispersed via SMS, WhatsApp, and other social media. These offers often mislead MSME actors, some of whom had already fallen victim to online lending scams due to limited financial literacy.

In response, the team designed a structured presentation and programs that offers aid or assistance that are focused on increasing awareness about financial risks associated with unregulated investments and illegal online lending. The content emphasised individual responsibility in making investment decisions and underscored the importance of legality and government oversight in selecting financial products. Interviews with randomly selected MSME participants revealed a growing interest in investing but also highlighted low-income stability and poor understanding of investment management as key obstacles.

Based on these findings, a preliminary survey guided the delivery of educational content. The sessions began with an overview of effective methods of financial management for small businesses mainly in identifying income sources and appropriate expenditure allocations. Legal investment instruments such as stocks, bonds, mutual funds, gold, and other government-regulated financial products have been introduced in by stages. The primary materials were delivered collaboratively: students explained examples of legal investment products, while the lead lecturer elaborated on the risks of both legal and illegal investments. A hands-on component followed, in which participants practiced identifying fraudulent investment schemes and high-risk online lending. This included app-based simulations and explanations of investor account creation and stock transactions on the Indonesia Stock Exchange (Bursa Efek Indonesia).

EVALUATION DESIGN

Evaluation of the program was conducted through both participant feedback and performance-based assessments, targeting two key stakeholder groups: the MSME participants and the university students involved in the implementation.

1. Participant Evaluation

Participant learning outcomes have been assessed through direct engagement and feedback sessions. A series of guided questions and open discussions were also implemented to evaluate their understanding of financial investment risks, the implications of illegal online lending, and the importance of financial planning.

Additionally, participants were assigned with the roles related to practicing the development of basic financial plans or capital budgeting strategies for long-term investment and business expansion.

2. Student Facilitator Evaluation

For university students involved in the program, evaluation focused on their ability to collaborate effectively as a team, deliver content clearly, and mentor participants during hands-on sessions. Students were assessed based on their ability to present course material, facilitate discussions, and guide MSMEs in drafting feasible investment planning documents aligned with the goals of business development.

25 participants attended the program, surpassing the initial target of 20 participants. An analysis of the documentation from these sessions revealed a notable enthusiasm, particularly among individuals who had previously experienced negative experiences with unregulated investments. The approach incorporated technical explanations, motivational discussions, and interactive simulations. The sessions further elucidated the practices of portfolio monitoring and the evaluation of return potential. Additionally, they managed to pinpoint illegal investment schemes, including fund transfers to unidentified accounts and the absence of contracts or formal documentation.

RESULTS

As 25 participants attended the program, it had exceeded the initial expectation of on 20 participants. The participants were MSME entrepreneurs engaged in the food and beverage processing sector in the Agrowisata Village, Kalidoni District. The training participants consisted of women who are members of the MSME group Kelompok Tani Wanita Sungai Jawi.

To assess program effectiveness, pre- and post-session questionnaires were administered to participants. The evaluation showed a significant increase in financial knowledge, awareness of risks, and motivation to improve financial management practices. The summary of results is shown in Table 1.

TABLE 1. Summary of pre- and post-test results

| Assessed Topic | Pre-Test (%) | Post-Test (%) |
|---|--------------|---------------|
| Basic knowledge of financial investment | 38 | 98 |
| Understanding of MSME funding access | 73 | 100 |
| Awareness of fraudulent (illegal) investments | 51 | 95 |
| Awareness of risks of illegal online lending | 80 | 100 |
| Motivation to improve financial management | 20 | 98 |

The most notable improvement was in participants' motivation to manage business finances, which increased from only 20% readiness to 98% after the sessions. This shows that the program not only enhanced knowledge but also fostered attitudinal change and stronger entrepreneurial commitment. Overall, the results proved that the program was highly effective and successful in enhancing participants' financial literacy, risk awareness, and motivation.

Overall, the evaluation results showed that the educational program was highly effective in enhancing participants' financial literacy, both cognitively and affectively. The program succeeded in fostering a deeper understanding, increased awareness, and renewed motivation to face financial risks and manage micro-businesses more wisely.

DISCUSSION

One of the fundamental pillars in empowering Micro, Small, and Medium Enterprises (MSMEs) lies in fostering their financial independence (Chu 2021). This study revealed that participants would often rely on illegal online loans with excessively high interest rates to cover consumption-related expenses, a practice that significantly undermines business sustainability. This finding is consistent with Syarvina (2022), who emphasised that MSMEs often become victims of predatory lending practices due to limited financial literacy and weak access to formal credit institutions.

Financial management which would necessarily include investment management, which can be classified into two broad categories: real (tangible) assets and financial assets (Damnjanović et al. 2017). The latter, commonly referred to as financial investments, include instruments such as stocks, bonds, and mutual funds. According to (Borkar 2024), financial investments play a crucial role in enhancing the value of money by generating future cash inflows. These financial returns can be reinvested in a subsequent manner as a capital to support MSME growth and long-term sustainability (Hanafi 2016).

The Village Lecture Program was implemented as a platform for knowledge transfer aimed at enhancing investment literacy and disseminating information on safe and accessible funding sources. The involvement of

university students in this community service initiative proved highly beneficial, as it facilitated the translation of theoretical knowledge particularly in financial investment and income management into practical understanding for a broader community audience. Participants, comprised of 20 women entrepreneurs from the Kelompok Tani Wanita in Agrowisata Village, Kalidoni District, actively engaged in discussions and practical simulations using digital investment platforms regulated by the Indonesian government. Through this initiative, they have been exposed to legitimate and secure investment opportunities, particularly within the Indonesian stock exchange, highlighting the stark contrast between regulated investments and the illegal schemes they had previously experienced.

One of the key insights from the program was the identification of common indicators of investment fraud. Participants came to understand that illegal schemes would oftentimes involve transferring funds to personal accounts falsely claiming to represent legitimate institutions. In contrast, investments through the Indonesia Stock Exchange require individuals to open personal investment accounts typically through licensed securities companies—ensuring that all fund transfers remain under the direct control of the investor. This process provides a more secure and transparent transaction system, reinforcing trust in regulated financial markets.

The discussions also underscored the importance of understanding relevant regulatory frameworks and investor protection mechanisms. As a result, participants showed increased awareness about both the potential returns and inherent risks of financial investment. Central to the workshop was the concept of substantial risks, high returns, along with the need for individuals to assess their own risk tolerance profiles. This approach not only equipped participants to invest more safely but also enabled them to make informed and confident investment decisions.

The program outcomes indicate that investment literacy and awareness of financial risk can be substantially improved through community-based education. This is in line with Masdupi et al. (2024) and Aeni et al. (2024), who found that financial literacy and risk tolerance positively affect long-term MSME sustainability. Participants in this study not only gained a better understanding of legitimate investment instruments (stocks, bonds, mutual funds, and gold) but also became more aware of the warning signs of fraudulent schemes. This contrasts with prior findings (Purwidianti et al. 2024) that showed weak or insignificant consequences of risk attitudes, suggesting that a practical, hands-on approach may bridge the gap between theoretical knowledge and real-world application.

Strategically, the program highlights the importance of integrating structured financial education with capacity-building in financial documentation. Participants expressed a need for further training in preparing simplified financial statements, which are often prerequisites for accessing loans from banks or cooperatives. This finding is consistent with Rago et al. (2023), who emphasized the role of financial planning and reporting in enabling MSMEs to secure formal funding.

Based on the findings, this study recommends strengthening MSME empowerment through integrated financial literacy programs that not only enhance awareness of legal investment and risk management but also provide practical training in financial reporting as a prerequisite for accessing formal funding. Collaboration between local government, banks, and cooperatives is essential to expand MSMEs' access to affordable credit while ensuring protection from illegal online lending practices. In addition, policy interventions that reinforce consumer protection and institutional support will be crucial to foster sustainable financial behaviour and long-term resilience of community-based enterprises.

In summary, the findings confirm the crucial role of financial education in reducing MSMEs' vulnerability to illegal online lending and in promoting safer investment practices. However, improving investment literacy alone is insufficient without simultaneous strengthening of financial reporting skills and greater access to formal financing channels. By addressing both knowledge and structural barriers, community-based financial education programs can provide more sustainable contributions to MSME resilience and growth.

From a theoretical perspective, these findings can be understood within the framework of the Theory of Planned Behaviour (TPB) (Ajzen 2020). TPB posits that individuals' intentions to engage in a particular behaviour is constructed by three key determinants: attitudes toward the behaviour, subjective norms, and perceived behavioural control. In this context, financial education initiatives enhance attitudes by fostering positive views toward legitimate investments, strengthen subjective norms by creating collective awareness within community groups that discourage reliance on illegal lending, and improve perceived behavioural control by equipping participants with practical knowledge and accessible tools for safe investing and financial reporting. Together, these components increase the likelihood that MSME actors will form strong intentions to adopt responsible financial behaviours, which subsequently translate into actual practices that support long-term sustainability.

CONCLUSION

This study reaffirms the critical role of financial literacy in strengthening MSME resilience, particularly in financial management, investment practices, and the prevention of illegal lending and fraudulent investment schemes. The research objective of evaluating the effectiveness of financial education programs were proven to

be successful, as evidenced by significant improvements in participants' knowledge, awareness, and motivation to manage their business finances more effectively. Theoretically, this study contributes to the literature on financial literacy by highlighting the importance of community-based educational initiatives, while it practically provides recommendations for stakeholders to integrate financial education with simplified financial reporting training and foster collaborations with formal financial institutions. Despite its limitations in terms of small sample size and localized context, the findings open avenues for future research with broader coverage and longitudinal analysis to assess the long-term impact on MSME sustainability.

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APPENDIX



