



The Effect of Financial Literacy Programs on Household Saving Behavior in Urban Indonesia

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Abstract

This study investigates the impact of financial literacy programs on household saving behavior in urban Indonesia. Financial literacy is essential for improving financial capability and promoting responsible saving, especially in diverse urban settings. Using a quasi-experimental mixed-methods design, data were collected from 150 households through pre- and post-program surveys, interviews, and focus group discussions. Quantitative results indicate significant increases in savings across all income levels, with lower-income households achieving the largest proportional gain of 60 percent. Middle- and higher-income households also showed improvement, though to a lesser extent. Qualitative findings reveal enhanced awareness of budgeting, savings options, and financial decision-making among participants, while limited access to formal financial services remained a barrier. Both male- and female-headed households benefited, and younger participants demonstrated greater adaptability to new saving habits. The study concludes that financial literacy programs effectively improve saving behavior, financial confidence, and social outcomes such as gender equity and family welfare. To sustain these effects, accessible financial services, targeted incentives, and supportive policy frameworks are essential for strengthening financial inclusion and household resilience in urban Indonesia.

INTRODUCTION

Financial literacy has emerged as a key factor in improving the financial well-being of households across the globe. It is the foundation for making informed decisions, managing resources effectively, and enhancing economic resilience (Katnic et al., 2024; Omowole et al., 2024; Fronda et al., 2024). In urban contexts, where households face increasingly complex financial landscapes with various banking services, credit options, and investment opportunities, the ability to navigate these systems effectively becomes paramount. Research suggests that despite the abundance of financial services, many households in urban areas, especially in developing countries like Indonesia, struggle with low levels of financial literacy, which hinders their ability to make sound financial decisions and save adequately for the future (Jumena et al., 2022; Belo et al., 2024; Sumastuti, 2024).

The rapid urbanization in Indonesia has led to a diverse financial environment characterized by the availability of both formal and informal financial services (Makmur, 2024; Telaumbanua et al., 2024; Surtiari et al., 2024). However, a significant portion of the urban population remains underserved by formal financial institutions, often due to low levels of financial awareness and education. Previous studies have shown that households with lower financial literacy tend to exhibit suboptimal saving behavior, a situation exacerbated by challenges such as income volatility and a lack of access to affordable financial products (Jhonson et al., 2023; Worang et al., 2022). This suggests that interventions aimed at improving financial literacy may play a crucial role in transforming household saving behavior, thereby enhancing overall financial capability and contributing to long-term economic stability.

Financial literacy programs are designed to address these gaps by educating individuals about the fundamentals of budgeting, savings, credit management, and long-term financial planning. Numerous studies have documented the positive impact of financial literacy programs on households' saving behavior, indicating that such programs can help improve financial decision-making and contribute to more sustainable financial practices (Katnic et al., 2024; Jumady et al., 2024; Jumena et al., 2022). Despite this, the effectiveness of these programs can vary depending on factors such as the socio-economic background of participants, the design of the programs, and the availability of complementary financial services. In Indonesia, the challenge lies not only in increasing financial literacy but also in ensuring that the knowledge gained through such programs is effectively applied in the face of persistent structural barriers to financial inclusion, such as limited access to formal banking services and inadequate financial products tailored to low-income groups (Umeaduma, 2023; Udohaya, 2025; Adelaja et al., 2024).

In this context, the present study seeks to explore the effectiveness of financial literacy programs on household saving behavior in urban Indonesia. By employing a quasi-experimental mixed-methods design, this study examines changes in saving behavior before and after participation in financial literacy programs, investigates participants' perceptions of the program's effectiveness, and identifies the factors that influence these changes. The study aims to fill a gap in the existing literature by providing a comprehensive analysis of the impact of such programs, particularly in the context of urban Indonesia, where financial behavior is shaped by a complex interplay of economic, social, and institutional factors.

Existing literature has provided valuable insights into the potential benefits of financial literacy programs, but there remains a need for further research focusing on specific urban environments where socio-economic disparities and financial exclusion are most pronounced (Katnic et al., 2024). While earlier studies have shown positive changes in saving behavior across various income groups, few have delved into the challenges faced by urban households in Indonesia, particularly in terms of access to financial services and the broader socio-economic context. This study aims to contribute to this gap by not only assessing the direct impact of financial literacy programs but also by exploring the contextual factors that may affect their success.

The primary objective of this study is to assess how financial literacy programs influence saving behavior among urban households in Indonesia. Specifically, the study focuses on identifying the factors that contribute to improvements in saving behavior, such as increased awareness of financial concepts, enhanced financial decision-making, and the role of socio-economic characteristics like income, gender, and age. By investigating the effectiveness of such programs, this research also aims to offer policy recommendations for enhancing the impact of financial literacy

interventions in urban settings, with a particular focus on improving access to formal financial services and addressing income-related barriers to saving.

The novelty of this study lies in its examination of the impact of financial literacy programs on urban households in Indonesia, a context that has been underexplored in the existing literature. Previous research has largely focused on rural populations or generalized findings across various regions, but this study hones in on the specific challenges faced by urban households in Indonesia. Furthermore, by employing a mixed-methods design, this study provides a more nuanced understanding of the effects of financial literacy programs, offering both quantitative data on saving behavior and qualitative insights into the motivations and barriers faced by participants.

METHODS

The current study is based on a quasi-experimental mixed-method design to determine the effects of financial literacy interventions on household saving behavior in urban Indonesia. The quasi-experimental model is specifically suitable because it allows evaluating the behavioral change, which can be attributed to the program participation and serve the practical limitations that make it impossible to introduce the randomized controlled trials in an urban setting. The study will combine both quantitative and qualitative design to quantify the change in saving behavior and also to elicit the perceptions, motivations, and issues of the participants involved in making decisions related to finance.

The unit of analysis will include urban households that are registered to financial literacy programs. The sample will be comprised of a treatment group, i.e. households that have participated in the program and in as far as possible a similar control group of households that have the same socio-economic characteristics as the ones that have participated. Stratified purposive sampling is used to sample the participants in order to have diversity in the income levels, age groups, and geographical locations within the city.

Structured questionnaires are used to gather quantitative data at pre-test stage and post-test stage after participation in the program. The tool is used to gauge the saving behavior of households in terms of the amount of savings per month or per year, the saving ratio in terms of the amount of income going to savings, and budgeting and spending behavior. Furthermore, the financial literacy of the subjects is also determined through a set of items about the major financial notions like the interest rates, investment choices, and risk mitigation. This pre- and post-design enables the analysis of the effects of change in the level of knowledge and behavior due to the program.

In order to supplement quantitative data a qualitative data is collected in the form of in-depth interviews with purposive subsample of participants and focus group discussions (FGDs) with household representatives. The qualitative methods will offer understanding on what drives the need to save, on the perceived obstructions which hinder the need to save more, and the feasibility of applying financial literacy to everyday life. This kind of data allow contextualising the numerical data and clarifying the mechanisms according to which the given behavioural changes can be explained.

The analysis of the data follows a number of steps. Descriptive statistics provide the summary of household demographics, initial saving habits, and financial literacy levels. The data analysis to evaluate changes in saving behavior before and after program attendance is conducted with the help of paired-sample t-tests or Wilcoxon signed-rank tests, depending on the data distribution. Regressions assess the connection between the degree of financial literacy and saving behavior adjusting by

demographic covariates (income, education, family size). In the case of a control group, a difference-in-differences (DiD) study design can be used to determine the causal effect of program attendance. Thematic analysis of the qualitative data is carried out and the coding is used to reveal patterns, motives, and obstacles in saving practices of households. The qualitative analysis results are triangulated with results of the quantitative analysis in order to increase the strength and to offer a full picture of the effects of the programs.

The questionnaire will be pre-tested on a small sample to ensure the questionnaire is clear and consistent and thus reliability constructs like Cronbachs 0 are calculated on financial literacy index. The ethical issues are monitored in the study, such as obtaining informed consent, confidentiality of the participants, and anonymisation of household information.

RESULTS AND DISCUSSION

This study involved 150 urban households participating in financial literacy programs in Indonesia. Data were collected using pre- and post-test surveys, complemented by qualitative interviews and focus group discussions, to examine both behavioral changes in household savings and the participants' perceptions of the program.

Participant Demographics

Table 1. Participant Demographics

Characteristic	Number of Households	Percentage (%)
Male Head of Household	85	56.7
Female Head of Household	65	43.3
Average Age (years)	38	–
Education ≥ High School	112	74.7
Monthly Income < 3M IDR	50	33.3
Monthly Income 3–5M IDR	70	46.7
Monthly Income > 5M IDR	30	20.0

The study sample was designed to be diverse, representing a cross-section of urban households across different income groups, educational levels, and household compositions. As shown in Table 1, the majority of participants (74.7%) had at least a high school education, which is important for understanding their engagement with the program's materials. In terms of gender, 56.7% of households were male-headed, while 43.3% were female-headed. This demographic distribution allowed for an examination of how financial literacy programs impacted saving behavior across different gender dynamics. Furthermore, the income distribution revealed that 33.3% of participants had a monthly income below 3 million IDR, 46.7% earned between 3 million and 5 million IDR, and 20.0% had incomes greater than 5 million IDR. The diverse income groups provided the opportunity to examine how financial literacy interventions influenced savings across varying levels of financial resources.

Changes in Household Saving Behavior

Table 2. Changes in Average Monthly Savings (IDR, '000)

Income Group	Pre-Test Savings	Post-Test Savings	% Change
<3M IDR	200	320	+60%
3–5M IDR	450	670	+48.9%
>5M IDR	800	1,100	+37.5%
Overall Average	450	700	+55.6%

Table 2 presents a comparison of household savings before and after the program participation. The average savings significantly increased for all income groups. Households with monthly incomes below 3 million IDR exhibited a remarkable 60%

increase in savings, from 200,000 IDR to 320,000 IDR. This group showed the highest proportional gain, suggesting that the program was particularly effective for low-income households, who might have previously lacked systematic saving habits. Similarly, middle-income households (3–5 million IDR) demonstrated an increase of 48.9%, from 450,000 IDR to 670,000 IDR, while higher-income households (above 5 million IDR) showed a more modest increase of 37.5%, from 800,000 IDR to 1,100,000 IDR. The overall average savings increased from 450,000 IDR to 700,000 IDR, marking a 55.6% improvement across all participants.

This improvement is consistent with prior studies that have shown that financial literacy interventions tend to have the most significant effect on households with lower financial literacy and fewer resources (Lusardi & Mitchell, 2014; Behrman et al., 2012). The increases in savings reflect not only enhanced knowledge but also greater financial discipline instilled by the financial literacy program. These findings corroborate earlier studies by Harahap et al. (2022) and Katnic et al. (2024), who demonstrated that financial literacy programs lead to more responsible financial behaviors, including increased saving.

Perceived Benefits and Challenges

Table 3. Participant Ratings on Financial Literacy Program (1 = Very Low, 5 = Very High)

Dimension	Mean Score
Understanding of Budgeting	4.3
Knowledge of Savings Options	4.1
Confidence in Financial Decisions	3.9
Access to Formal Financial Services	3.5

Qualitative findings gathered through in-depth interviews and focus group discussions (FGDs) with participants provide valuable context for understanding these behavioral changes. Table 3 summarizes the participants' perceptions of the financial literacy program across several dimensions, including budgeting, knowledge of saving options, and financial decision-making confidence. On a scale from 1 (very low) to 5 (very high), participants rated their understanding of budgeting at 4.3, indicating that the program significantly improved their ability to manage household finances. Knowledge of savings options was rated at 4.1, and confidence in financial decisions increased moderately to 3.9. While participants acknowledged gains in financial knowledge and decision-making, the lowest rating was for access to formal financial services, which scored 3.5. This reflects a common challenge in urban Indonesia, where limited access to formal banking services continues to be a significant barrier to financial inclusion (Sumastuti, 2024; Jumena et al., 2022).

These qualitative findings echo the importance of contextual factors that influence the success of financial literacy programs. While the knowledge imparted by the program was well-received, the ongoing barriers to accessing formal financial services, such as minimum balance requirements and the lack of tailored financial products for low-income households, were repeatedly mentioned by participants. These structural constraints highlight the need for complementary interventions, such as improvements in the accessibility and affordability of financial services, to ensure that the knowledge gained can be fully applied in participants' daily financial practices (Belo et al., 2024; Setiawan et al., 2022).

Table 4. Summary of Interview Findings

Theme	Findings
Improvement in Financial Knowledge	Participants reported increased awareness of budgeting, savings options, and financial decision-making.
Perceived Benefits	Participants felt more confident in managing their finances and expressed a better understanding of the importance of emergency funds.
Challenges in Saving	Limited access to formal financial services, such as difficulty in opening bank accounts, high minimum balance requirements, and lack of tailored financial products.
Gendered Impact	Female-headed households focused savings on family welfare and children's education.
Age Differences	Younger participants showed greater adaptability to new saving habits compared to older participants.
Behavioral Changes	Many participants initiated new saving routines, joined informal savings groups, and set aside small amounts regularly.
Structural Barriers	The lack of accessible financial infrastructure, such as affordable and flexible savings options, hindered full application of financial knowledge.

The insights summarized in the table reveal both positive outcomes and ongoing challenges in the financial literacy program. The increase in financial knowledge particularly in budgeting, savings options, and decision-making reflects the program's success in educating participants about crucial financial practices. Participants reported feeling more confident in managing their finances, which aligns with findings from previous studies that emphasize the role of financial education in improving financial behavior (Harahap et al., 2022). Additionally, the behavioral changes, such as starting new savings routines and participating in informal savings groups, indicate that the program was effective in prompting tangible shifts in financial habits, especially among younger participants, who demonstrated greater adaptability.

However, the interviews also highlighted persistent barriers, notably in accessing formal financial services. Participants often faced difficulties such as high minimum balance requirements and a lack of financial products suited to their income level, which hindered their ability to apply the knowledge gained from the program fully. This limitation is consistent with studies that underscore the importance of both financial education and structural changes in financial systems to foster long-term behavior change (Setiawan et al., 2022). Additionally, the gendered impact of the program was clear, with female-headed households particularly focused on using their savings for family welfare and children's education, suggesting that financial literacy programs could contribute to broader socio-economic improvements, such as gender equity and enhanced family well-being.

Gender and Age-Based Differences in Program Impact

The study also explored how financial literacy programs affected different demographic groups within urban households. Notably, both male- and female-headed households showed improvements in savings behavior, with women often directing their savings towards household welfare and children's education. This gendered impact of financial literacy programs aligns with findings from prior research, which suggests that financial education can empower women, contributing to better family financial management and broader social outcomes, including gender

equity (Ratnawati et al., 2023). Additionally, younger participants were found to be more adaptable to new saving habits compared to older participants. This finding aligns with previous studies indicating that younger individuals are more open to adopting new financial practices and are likely to sustain these habits over the long term (Jhonson et al., 2023; Worang et al., 2022).

Factors Influencing Program Effectiveness

The effectiveness of the financial literacy program varied depending on several socio-economic factors. Income level was the most significant predictor of savings behavior change, with lower-income households demonstrating the most significant proportional increase in savings. This supports the "baseline effect" described in the literature, where financial education has a stronger impact on households with lower initial financial knowledge or weaker financial behaviors (Lusardi & Mitchell, 2014; Sabri et al., 2021; Sekita et al., 2022; Hwang & Park, 2023). However, despite the improvements in savings, income disparities remain a key barrier to achieving substantial wealth accumulation among low-income households. Although these households showed a marked improvement in saving behavior, their absolute savings levels remain lower than those of higher-income households, highlighting the persistent challenges posed by income inequality.

Another factor influencing program effectiveness was participants' access to financial services. As noted earlier, despite increases in financial knowledge, many participants struggled to apply this knowledge due to limited access to formal financial products. Participants frequently cited difficulties such as high minimum balance requirements and the unavailability of low-cost savings accounts tailored to their needs. This underscores the importance of addressing not only financial literacy but also the structural barriers to financial inclusion that hinder the effective application of financial knowledge (Khan et al., 2022; Zaimovic et al., 2023).

Social Implications and Long-Term Behavioral Change

The broader social implications of the program were also evident. Participants reported that the financial literacy program helped them develop a more disciplined approach to managing household finances. For many, this translated into the formation of new saving habits, such as setting aside a portion of their income each month and tracking household expenditures. Additionally, some participants formed informal savings groups, providing a community-based approach to saving that could offer further support in times of financial strain. These findings are consistent with the work of Sherraden (2013), who highlighted the role of financial literacy in enhancing financial capability and promoting long-term economic stability.

Moreover, the program's impact extended beyond individual financial behaviors to broader social outcomes. Both male- and female-headed households demonstrated increased financial awareness, with women directing their savings towards family welfare and education. This suggests that financial literacy programs not only contribute to individual financial empowerment but also promote broader societal benefits, such as gender equity and improved family well-being.

CONCLUSION

This study demonstrates that financial literacy programs significantly improve household saving behavior in urban Indonesia, with the most notable improvements among lower-income households. Participants showed increased awareness of budgeting, better understanding of savings options, and greater confidence in financial decision-making. Both male- and female-headed households benefited, with women often prioritizing savings for family welfare and children's education, promoting broader social goals like gender equity. However, despite these gains, structural challenges such as limited access to formal financial services persist,

hindering participants' full application of financial knowledge. Additionally, income disparities continue to affect the absolute savings levels, with lower-income households achieving higher proportional gains but still having lower savings than wealthier households.

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