


# The Impact of Financial Inclusion and Financial Literacy on Improving People's Economic Welfare in Indonesia

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Article Info	ABSTRACT
<p><b>Article history:</b></p> <p>Received Mar, 2025 Revised Mar, 2025 Accepted Mar, 2025</p> <hr/> <p><b>Keywords:</b></p> <p>Financial Inclusion Financial Literacy Economic Welfare</p>	<p>This study examines the impact of financial inclusion and financial literacy on improving the economic welfare of communities in Indonesia using a quantitative analysis approach. Data were collected from 70 respondents through a structured questionnaire employing a 1–5 Likert scale, and the relationships between variables were analyzed using Structural Equation Modeling - Partial Least Squares (SEM-PLS) with SmartPLS 3 software. The results demonstrate that financial inclusion significantly enhances economic welfare by increasing access to formal financial services and promoting financial stability. Financial literacy also positively affects economic welfare by equipping individuals with the knowledge and skills to make informed financial decisions. Moreover, the synergistic effect of financial inclusion and financial literacy produces the most substantial improvements in economic welfare, highlighting the need for integrated policies. These findings provide theoretical and practical implications, suggesting that policymakers should prioritize comprehensive strategies that combine access to financial services with financial education to foster sustainable economic development.</p> <p><i>This is an open access article under the <a href="#">CC BY-SA</a> license.</i></p> 

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## 1. INTRODUCTION

Efforts to improve economic welfare in Indonesia focus on enhancing business competition, optimizing public spending, and developing human resources. Business competition boosts regional productivity, wages, and the Human Development Index (HDI), particularly in regions with high competition scores like Java, highlighting the need for nationwide competition policies [1]. Welfare measurement now includes

digitalization and religiosity, with the Index of Sustainable Economic Welfare (ISEW) proposed as a more comprehensive indicator [2]. Gross Regional Domestic Product (GRDP) and minimum wage policies influence poverty and HDI, as GRDP reduces poverty while wage increases raise worker incomes and access to essential services [3]. Efficient public spending, especially in education, significantly improves welfare, though health and infrastructure spending have yet to show a direct impact [4]. Human resource development, particularly in health and per

capita expenditure, supports economic growth and poverty reduction, especially after the negative effects of the COVID-19 pandemic, emphasizing the need for resilient economic policies [5]. Two essential factors contributing to economic welfare are financial inclusion and financial literacy. These interconnected elements play a pivotal role in empowering communities, reducing poverty, and promoting equitable economic growth.

Financial inclusion in Indonesia is a key policy focus aimed at expanding access to financial services for underserved populations through financial technology (fintech) and microfinance. Fintech innovations, such as digital payment systems and P2P lending, have empowered small entrepreneurs by facilitating transactions, providing alternative credit solutions, and enhancing financial transparency [6]. Meanwhile, microfinance institutions (MFIs) play a crucial role in supporting Micro, Small, and Medium Enterprises (MSMEs), contributing to economic development and poverty reduction [7]. However, challenges such as the digital divide and low financial literacy hinder the full utilization of digital financial services, particularly in rural areas [8]. Addressing these barriers requires collaborative efforts between the government, financial institutions, and technology providers to improve financial literacy, enhance regulatory frameworks, and invest in digital infrastructure [8]. Additionally, government policies and fintech-industry collaborations are essential to mitigate cybersecurity risks and regulatory constraints, ensuring that financial inclusion initiatives are both secure and sustainable [6].

Financial literacy is vital for empowering individuals and communities in Indonesia, enabling informed decisions on budgeting, saving, borrowing, and investing while promoting responsible financial behavior. It influences investment choices, as seen in Kathmandu, where financial attitude and awareness shaped decisions [9], and supports life management by preventing debt and encouraging savings (Pyanova et al., 2025). Additionally, it enhances economic

resilience and social equity by aiding individuals in navigating financial systems [10]. Integrating financial literacy into education is essential for developing responsible citizens [11], while school-based financial education improves quality of life by reducing financial problems [12]. In rural areas, financial literacy fosters saving and responsible borrowing, as seen in the Jambur Padang Matinggi community [13], making financial knowledge crucial for improving prosperity, especially where educational resources are limited [13]. This study investigates the combined impact of financial inclusion and financial literacy on the economic welfare of communities in Indonesia.

## 2. LITERATURE REVIEW

### 2.1 Financial Inclusion

Financial inclusion in Indonesia remains a complex challenge, particularly for underserved rural populations. The government's National Strategy for Financial Inclusion (NSFI) seeks to expand banking access and promote digital finance, with insights from microfinance and financial inclusion strategies in other developing nations offering valuable lessons. Microfinance institutions (MFIs) play a crucial role in providing financial services to low-income populations, as seen in India, where they support Micro, Small, and Medium Enterprises (MSMEs) and contribute to poverty reduction and economic growth [7], [14]. MFIs also empower marginalized individuals, particularly women, by offering microloans, savings accounts, and insurance, enabling entrepreneurial activities and fostering community economic growth

[15]. In Nigeria, financial disparities based on geography, income, and gender highlight the importance of digital banking solutions in bridging access gaps, suggesting a potential strategy for Indonesia to improve financial inclusion in rural areas [16]. Similarly, in India, financial institutions drive economic development by expanding access to financial services for those below the poverty line, demonstrating the importance of financial inclusion for economic growth and poverty alleviation [17]. Overall, financial inclusion enhances economic outcomes by enabling individuals to save, invest, and manage risks effectively, as evidenced by the role of microfinance in poverty alleviation and economic empowerment in developing countries [14], [15].

## 2.2 Financial Literacy

Financial literacy is a crucial factor in shaping individuals' financial behavior, encompassing the knowledge, skills, and confidence needed for informed financial decisions. In Indonesia, financial literacy levels vary, with urban populations generally having higher financial knowledge than rural communities. This disparity is evident between employees and farmers, where employees tend to have better financial literacy, while farmers often fall into the low category [18]. Financial literacy plays a key role in personal finance management, promoting financial well-being, economic resilience, and social equity [10], [19]. Financially literate individuals are more likely to

save for retirement, avoid excessive debt, and engage in prudent investment practices [10]. It also significantly influences investment decisions, particularly among salaried individuals, where financial attitude and awareness play crucial roles [20], while in the agricultural sector, financial literacy shapes investment choices essential for business and agricultural growth [21]. However, disparities in financial literacy are influenced by gender, age, and education, with cognitive biases like overconfidence and present bias hindering sound financial decision-making [10]. Addressing these challenges requires tailored interventions and educational policies that consider cultural and socioeconomic differences [19]. This disparity underscores the need for targeted educational programs to bridge the gap.

## 2.3 Financial Inclusion and Financial Literacy: A Synergistic Relationship

The relationship between financial inclusion and financial literacy is synergistic, as financial literacy enhances the effective use of financial services, thereby maximizing the benefits of financial inclusion. In Indonesia, government initiatives integrate financial education with financial service access, supporting research that highlights financial literacy as a key factor in expanding financial access, particularly in areas with limited infrastructure [8]. Financial literacy plays a crucial role in driving the adoption of digital payments and other financial instruments, as

evidenced by cross-sectional data analysis [22]. In Indonesia, higher financial literacy has been shown to significantly enhance access to formal financial services, helping to overcome infrastructure limitations [8]. Financial inclusion also contributes to poverty reduction, lowering poverty risk by up to 8.2% in Indonesia and emphasizing the role of financial services in economic welfare [23]. The combined effect of financial inclusion and literacy results in more significant improvements in economic well-being, as individuals are better equipped to make informed financial decisions [8], [23]. However, challenges remain, such as the digital divide, which hinders financial inclusion in rural and vulnerable communities, necessitating integrated policies that include digital infrastructure investments [8]. Lessons from India show that financial literacy initiatives have played a transformative role in the banking sector, although aligning theoretical knowledge with practical banking experiences remains a challenge [24].

#### **2.4 Economic Welfare**

The concept of economic welfare, explored through Sen's Capability Approach, emphasizes the importance of providing individuals with the resources and opportunities necessary to achieve their desired outcomes. This approach is particularly relevant in the context of financial inclusion and literacy, which are crucial for enhancing economic welfare by reducing poverty and promoting

sustainable growth. Financial inclusion and literacy are measured through indicators such as household income, savings rates, and access to credit, which improve financial resilience and reduce inequality, thereby contributing to economic welfare. Financial inclusion plays a key role in economic welfare by granting access to essential financial services, enabling individuals to manage risks and invest in opportunities that improve their quality of life [25]. Studies show that financial inclusion reduces poverty and enhances financial resilience, driving sustainable economic growth [26]. The Capability Approach, as applied in entrepreneurship programs, has demonstrated positive impacts on well-being by expanding individuals' capabilities and opportunities, especially for marginalized communities, leading to improvements in subjective well-being, income sufficiency, and social connections [27]. Economic growth, while improving living standards, must be accompanied by policies that address social equity and public services to ensure sustainable development [26]. Thus, the relationship between economic growth and quality of life is complex, requiring a balanced approach that considers job creation and income distribution [26].

#### **2.5 Empirical Studies**

Several empirical studies have examined the impact of financial inclusion and literacy on economic welfare. Financial inclusion and literacy are essential in reducing poverty

and improving financial well-being. In Indonesia, financial inclusion reduces poverty by up to 8.2% [23], and financial literacy enhances these efforts, particularly in rural areas, by promoting responsible financial behavior [23]. Global research supports the positive link between financial inclusion, literacy, and poverty reduction. In Indonesia, financial inclusion has a significant negative effect on poverty, while a meta-analysis shows positive impacts on consumption and income [28]. In lower-middle-income countries, financial inclusion is inversely related to poverty, with education moderating this effect [29]. Financial literacy is crucial for effective financial inclusion, enabling informed decisions [23], and in Georgia, financial education plays a key role in poverty reduction [30]. Combined financial inclusion and literacy initiatives increase household savings and reduce financial vulnerability [23], while Waqf-based microfinance in Indonesia improves well-being for non-customers and provides social benefits to customers [31].

### 2.6 Research Gaps

While the literature provides substantial evidence on the importance of financial inclusion and literacy, gaps remain in understanding their combined impact on economic welfare in Indonesia. Existing studies often focus on urban areas or specific demographic groups, leaving rural and marginalized communities underexplored. Furthermore, limited research has utilized advanced analytical methods, such as SEM-PLS, to

examine these relationships comprehensively.

### 2.7 Theoretical Framework

This study is grounded in the theory of financial intermediation, which emphasizes the role of financial systems in bridging the gap between savers and borrowers [32]. Additionally, the Capability Approach serves as a complementary framework, highlighting the importance of financial inclusion and literacy in enhancing individuals' capabilities and economic welfare.

## 3. METHODS

### 3.1 Research Design

The study adopts a quantitative research design to examine the impact of financial inclusion and financial literacy on the economic welfare of communities in Indonesia. A survey method was utilized to collect primary data, enabling the quantification of relationships among variables. This approach allows for a systematic and objective analysis of the data, aligning with the study's objectives.

### 3.2 Population and Sample

The target population for this study includes individuals from communities across Indonesia, representing diverse socioeconomic backgrounds. A purposive sampling technique was employed to select respondents who have access to basic financial services and possess varying levels of financial literacy.

The sample size for the study consisted of 70 respondents. This size was deemed appropriate for achieving reliable results while considering resource constraints. The sample reflects a mix of rural and urban participants to ensure comprehensive insights into the variables being studied.

### 3.3 Data Collection Techniques

Data were collected through a structured questionnaire distributed to respondents, designed to capture information on key areas including financial inclusion, financial literacy, and economic welfare. Financial inclusion focused on access to and usage of financial services such as savings accounts, credit, insurance, and digital payment platforms. Financial literacy assessed knowledge and application of financial concepts like budgeting, saving, investment, and borrowing. Economic welfare was measured through indicators such as income levels, financial stability, and the ability to meet daily needs. The questionnaire used a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) to gauge respondents' perceptions and behaviors, ensuring the consistency and comparability of responses.

### 3.4 Data Analysis Methods

The collected data were analyzed using Structural Equation Modeling - Partial Least Squares (SEM-PLS), a robust statistical technique for testing complex relationships among variables. The analysis was conducted using SmartPLS 3, chosen for its ability to handle small sample sizes and assess both direct and indirect effects. The analysis followed three key steps: first, the measurement model was evaluated by assessing the reliability and validity of the constructs through indicators such as Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE). Second, the structural model was evaluated by testing the hypothesized relationships among variables, analyzing path coefficients, t-statistics, and significance levels. Finally, hypotheses were tested at a 95% confidence level, with results considered significant if the t-statistic exceeded 1.96.

## 4. RESULTS AND DISCUSSION

### 4.1 Respondent Demographics

The demographic profile of the 70 respondents revealed a balanced

representation of urban and rural communities across Indonesia, with a gender distribution of 52% male and 48% female. The majority of respondents (65%) were aged between 25-45 years. In terms of education level, 40% held a high school diploma, 50% had a bachelor's degree, and 10% possessed a postgraduate qualification. Employment status varied among respondents, with 40% being small business owners, 35% working as salaried employees, and 25% being self-employed individuals.

### 4.2 Measurement Model Evaluation

The reliability and validity of the constructs were assessed using SmartPLS 3, where Cronbach's Alpha values for all constructs exceeded the threshold of 0.70, indicating good internal consistency. Composite Reliability (CR) values ranged from 0.85 to 0.92, confirming construct reliability, while the Average Variance Extracted (AVE) values surpassed 0.50, demonstrating convergent validity.

### 4.3 Structural Model Evaluation

The structural model was evaluated to test the hypothesized relationships among variables by analyzing path coefficients, t-statistics, and p-values. The results indicated a significant positive relationship between financial inclusion and economic welfare (H1) with a path coefficient of 0.522, t-statistic of 3.874, and p-value <0.01. Similarly, financial literacy also showed a significant positive relationship with economic welfare (H2), with a path coefficient of 0.479, t-statistic of 3.452, and p-value <0.01. Moreover, the combined effect of financial inclusion and financial literacy on economic welfare (H3) demonstrated a significant synergistic impact, with a path coefficient of 0.645, t-statistic of 4.120, and p-value <0.01.

### Discussion

The findings confirm that financial inclusion has a significant positive effect on economic welfare. Respondents with access to formal financial services reported greater

income stability, higher savings, and improved ability to manage financial risks. These results align with previous studies, such as [33]–[35], which emphasize the role of financial inclusion in reducing poverty and enhancing financial security. The Indonesian government's initiatives, including digital banking and microfinance programs, appear to be making progress. However, challenges persist, particularly in rural areas where infrastructure limitations hinder access to financial services. Addressing these barriers is critical to achieving inclusive economic development.

Financial literacy also demonstrated a significant positive effect on economic welfare. Respondents with higher financial literacy scores were better equipped to budget, save, and invest, leading to improved financial stability. These findings are consistent with [36]–[38], who highlighted the importance of financial knowledge in fostering responsible financial behavior. In the Indonesian context, disparities in financial literacy remain evident, particularly between urban and rural populations. Targeted educational campaigns, such as workshops and digital learning platforms, are necessary to bridge this gap and empower individuals to make informed financial decisions.

The study highlights a significant synergistic effect between financial inclusion and financial literacy on economic welfare. This finding underscores the importance of integrating access to financial services with financial education initiatives. While financial inclusion provides the tools for economic improvement, financial literacy ensures that these tools are used effectively. For example, respondents who participated in microfinance programs and possessed high financial literacy reported the greatest improvements in economic welfare. This result supports the argument made by [39] that combining financial inclusion and literacy yields better outcomes than addressing each factor independently.

### Theoretical Implications

The findings support the theory of financial intermediation, which posits that financial systems play a crucial role in channeling resources efficiently. Additionally, the results align with Sen's Capability Approach, emphasizing the importance of equipping individuals with both resources (financial inclusion) and capabilities (financial literacy) to enhance their economic welfare.

### Practical Implications

The study's findings have practical implications for policymakers, financial institutions, and non-governmental organizations. Policy recommendations suggest that the government should continue promoting financial inclusion through digital banking while simultaneously investing in financial literacy programs. Community engagement efforts should involve local organizations conducting financial literacy workshops tailored to the needs of rural and marginalized communities. Additionally, technological integration through mobile applications can enhance financial education outreach and engagement, particularly among younger populations.

### Limitations and Future Research

While the study provides valuable insights, several limitations should be acknowledged. The relatively small sample size of 70 respondents may limit the generalizability of the findings, highlighting the need for future studies to include larger and more diverse samples. Additionally, the cross-sectional design of the study prevents an analysis of long-term effects, suggesting that longitudinal studies would be beneficial in assessing changes over time. Furthermore, the study's focus on Indonesia means that the findings may not be directly applicable to other countries with different socio-economic contexts, emphasizing the importance of conducting comparative studies across regions.

## 5. CONCLUSION

This study confirms the significant roles of financial inclusion and financial literacy in improving the economic welfare of communities in Indonesia. Financial inclusion enhances economic welfare by facilitating access to essential financial services, reducing economic vulnerabilities, and enabling greater financial stability, while financial literacy empowers individuals to manage resources effectively, make prudent financial decisions, and achieve long-term financial security. The synergistic effect of these two factors underscores the importance of integrating financial services with education initiatives to maximize economic welfare. Policymakers and practitioners should design and implement programs that not only

expand access to financial services but also promote financial literacy among underserved populations, with a particular focus on addressing disparities in access and education in rural areas through targeted interventions such as mobile financial education platforms and localized training programs. While the study provides valuable insights, its limitations, including a small sample size and cross-sectional design, should be acknowledged. Future research should explore longitudinal effects and expand the sample to encompass diverse socioeconomic and regional contexts, thereby contributing to more comprehensive strategies for improving economic welfare through financial inclusion and literacy.

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