

# Financial Literacy and Financial Inclusion Increasing Financial Resilience: A Literature Review

I Made Ariana\*, I Gusti Bagus Wiksuana, Ica Rika Candraningrat, I Gde Kajeng Baskara  
Faculty of Economics and Business, Udayana University, Denpasar, Bali, Indonesia

\* E-mail of the corresponding author: [madeariana@pnb.ac.id](mailto:madeariana@pnb.ac.id)

## Abstract

The motivation of this research is 1) the differences in the findings of previous studies on the effect of financial literacy and financial inclusion on financial resilience; 2) there is no consensus on the definition and also measurement of research variables. This study describes the diversity of definitions, measurement of financial literacy, financial inclusion, and financial resilience. This study also describes financial literacy and financial inclusion's effect on financial resilience. This study uses a literature review by collecting related financial literacy, financial inclusion, and financial resilience articles. Article searches were conducted on the Scopus and Google Scholar databases using Publish or Perish software. Search using keywords financial literacy, financial inclusion, and financial resilience. The articles selected are international in English and were published from 2018 to 2022. A total of 19 articles on the relationship between financial literacy, financial inclusion, and financial resilience meet the requirements. The results of the study indicate that there is no consensus on financial literacy, financial inclusion, and financial resilience measurement. Most of the research results show a positive influence of financial literacy on financial inclusion and a positive impact of financial literacy and financial inclusion on financial resilience.

**Keywords:** Financial inclusion, Financial literacy, Financial resilience

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## 1. Introduction

Globalization, supported by technological developments, has led to a more integrated financial sector and increased innovation of financial products. The increase in financial sector integration and the increasingly diverse financial product innovations provide benefits and potentially cause a financial shock (OECD, 2021a). Financial shocks harm various economic sectors (OJK, 2020). Financial shocks harm individuals, households, communities, regions, or countries (Sanchez et al., 2021). Financial shocks can cause financial stress and vulnerability (Sun et al., 2022). The increase in financial shocks necessitates financial resilience to survive, cope with, and recover from financial shocks (OECD, 2021b).

Financial resilience is critical to survival in an increasingly dynamic and unpredictable environment (Heredia et al., 2022; Osita-Ejikeme and Amah, 2022). Financial resilience reduces economic losses in a crisis (Alves et al., 2020; Townsend dan Agachi, 2020). A lack of financial resilience harm the level of individual/family, the broader level, level of macroeconomics (Drake, 2020). Financial resilience is built within the financial literacy and inclusion framework (Konigsheim et al., 2017).

Financial literacy is knowledge, skills, and beliefs which influence attitudes and behavior to improve the quality of decision-making and financial management to achieve prosperity. Financial inclusion is access to various financial institutions, products, and services following the community's needs and abilities to improve community welfare (OJK, 2016).

The research results of Moore et al. (2019), Hussain et al. (2019), Swamy (2019), and Nyarko et al. (2022) showed that financial inclusion had a positive effect on financial resilience. Pandin et al. (2021) research shows the opposite, that financial inclusion has a significant negative influence.

The motivation of this research is 1) the differences in the findings of previous studies on the effect of financial literacy and financial inclusion on financial resilience; 2) there is no consensus on the definition and also measurement of research variables. This study describes the diversity of definitions, measurement of financial literacy, financial inclusion, and financial resilience. This study also describes financial literacy and financial inclusion's effect on financial resilience.

This research is to get a better description and understanding of measurement and the effect of financial literacy

and inclusion on financial resilience. A better description of financial literacy and financial inclusion's effect on financial resilience needs for developing strategies. A review of financial literacy and financial inclusion's effect on financial resilience will provide direction for further research.

## 2. Literature Review

Consensus on issues, such as how resilience should be defined, assessed, and measured, is lacking. Resilience is an entity ability (assets, organizations, communities, territories) to anticipate, resist, absorb, respond, adapt, and recover from disturbance. Bassett illustrates how the six components in the definition of resilience relate to actions that describe the capacity of an entity to withstand unexpected events. Anticipation, resistance, and absorption actions before the adverse event, while response, adaptation, and recovery occur after Bassett. Financial resilience is the ability to leverage internal capabilities, access appropriate, acceptable, and external resources, and support in financial distress. The identified resources that enable financial resilience include economic resources, financial products and services, financial knowledge and behavior, and social capital (Salignac et al., 2019). Financial resilience is the ability of individuals to function effectively in adverse financial situations, help overcome financial difficulties, develop effective policies, and promote economic development (Salignac et al., 2019).

Barney (1991) states that according to the Resource Based View (RBV) perspective, a company will achieve excellence if it has superior resources. A company's resources and capabilities include all financial, physical, human, and organizational assets. They are used to develop, manufacture, and deliver products or services to its customers. Grant, (1991) states that KBV identifies knowledge as the most resource of a firm whose strategic nature has important implications for competitive advantage. Stella, Florence, and Jane (2021) found that comprehensive retirement planners had high financial knowledge scores on basic financial concepts.

Financial resilience is the ability of an individual or household to endure, cope with, and recover from negative financial shocks (Salignac et al., 2019). Financial resilience is the financial ability to cope when faced with a sudden decline in income or an unavoidable increase in expenses (Drake, 2020). Financial resilience is the ability to recover more quickly from economic shocks (McKnight, 2019). Financial resilience is the ability to sustain one's livelihood by preventing or reducing the impact of financial shocks on income and expenses (Sanchez et al., 2021). Financial resilience is the ability of individuals to function effectively in adverse financial situations, can better help people overcome financial difficulties, develop effective policies, and, ultimately, promote economic development (Salignac et al., 2022).

Financial inclusion is access to various financial institutions, products, and services following the community's needs and abilities to improve community welfare (OJK, 2016). Financial inclusion is access to formal financial services for underserved populations (Ozili, 2018). Financial inclusion is the process of confirming access to adequate financial and credit services on time, wherever required by vulnerable groups, such as low-income groups and the weaker sections, at a reasonable cost (Shankar and Jeyaprabha, 2022). Financial inclusion is the right way to generate inclusive growth and achieve sustainable development (Abayomi and Ologunwa, 2021).

Financial literacy is knowledge, skills, and beliefs, which influence attitudes and behavior to improve the quality of decision-making and financial management to achieve prosperity (OJK, 2016). Financial literacy is the awareness, knowledge, skills, attitudes, and behaviors needed to make sound financial decisions and ultimately achieve individual financial well-being (OECD, 2020a).

## 3. Method

This study uses a literature review by collecting related financial literacy, financial inclusion, and financial resilience articles. Article searches were conducted on the Scopus and Google Scholar databases using Publish or Perish software. Search using keywords financial literacy, financial inclusion, and financial resilience. The articles selected are international in English and were published from 2018 to 2022. A total of 19 articles on the relationship between financial literacy, financial inclusion, and financial resilience meet the requirements.

## 4. Discussion

There is no consensus on measuring financial resilience, financial inclusion, and financial literacy. Salignac et al., (2019) use a multidimensional financial resilience framework that includes economic resources, financial resources, financial knowledge and behavior, and social capital. Economic resources include savings, debt management, the ability to meet living expenses, raise emergency funds, and income. Financial resources include access to bank

accounts, credit, and insurance needs. Financial knowledge and financial behavior consist of financial products and services knowledge, confidence in using financial products and services, willingness to seek financial advice, and proactive financial actions. Social capital includes social connections, access to social support, and community and government support in times of crisis when needed. Nkundabanyanga et al. (2019) measure financial resilience using financial robustness and adaptability. Financial robustness includes plans to reduce the number of operational branches soon, compliance with applicable laws and regulations, intermittent service delivery to customers, plans in certain financial years to be implemented without delaying other financial periods, and handling financial shocks properly. Adaptability consisted of ensuring most operations against shock and uncertainty, ease of adjusting operating procedures if needed, consistency in following priorities from year to year, and ease spot opportunities in the environment. McKnight and Rucci (2020) measure financial resilience using robustness, and there is no agreed standard state measure for measuring financial resilience. Various variable indicators have been used to assess financial resilience: 1) the value of savings and liquid financial assets that can be withdrawn when needed; 2) a subjective assessment of the ability to cope with financial shocks; 3) financial literacy measures; 4) measure of financial capability; and 5) actions that look at the opposite of resilience by capturing aspects of financial difficulties.

The measurement of financial inclusion includes the use of financial services and credit facilities through bank accounts from the demand side. Another dimension to measure the effectiveness of financial inclusion initiatives would be to collect data on the amount of credit disbursed, bank deposits, remittances made, insurance coverage, and others. Access is a person's ability to obtain and use financial services that are affordable, useful, and meet their financial needs. Singh dan Roy (2015) has designed new indicators of bank access for three types of services that is deposits, loans, and payments through two dimensions of access and use of financial services. The OECD (2020b) measures financial inclusion based on ownership, awareness, and use of financial products and services. The OECD (2022a) measures financial inclusion with the indicators: 1) having a payment product; 2) having savings, investment, or retirement products; 3) having insurance; 4) having credit products; 5) knowing at least five financial products; 6) the latest selection of financial products: and 7) rely on family and friends.

The financial literacy questions in the S&P Global FinLit Survey focus on four basic concepts for financial decision-making: risk diversification, inflation, basic accounting, and compound interest (Klapper and Lusardi, 2019). Kadoya and Khan (2020) measure financial literacy using three dimensions, namely financial knowledge, financial behavior, and financial attitudes. Financial knowledge measures the ability to understand financial calculations, particularly the implications of interest rates, inflation, and the risks and returns of financial securities. Financial knowledge is measured using three questions consisting of two basic financial knowledge, and one about financial risk. Behavioral finance measures how people act in financial transactions. Financial attitudes measure people's views on financial matters. Rieger (2020) summarizes the contents of financial literacy measurement from various studies stating that financial literacy measurement includes inflation knowledge, financial mathematics, financial knowledge, mathematical skills, and cognitive reflection. Stella et al. (2020) used five financial knowledge questions, five financial skills questions, and eight financial attitude questions. OECD (2020b) measures financial literacy using the dimensions of financial knowledge, financial behavior, and financial attitudes. Financial knowledge measure includes the impact of inflation on purchasing power, identification of interest and simple interest calculation, understanding the implications of compound interest, the relationship between risk and reward, the definition of inflation, and risk diversification. Financial behavior includes behavior in budgeting, active saving, avoiding loans to make ends meet, choosing products, supervising financial affairs, and striving to achieve goals. Financial attitude is measured using three statements of financial attitude. OECD (2022a) measures financial literacy using financial knowledge, financial behavior, and financial attitudes dimensions. Financial knowledge is measured using five questions including business financing, risk and insurance, inflation, and planning beyond the short term. Financial behavior is measured using nine questions which include: segregation of accounts, shopping, tracking financial records, thinking about retirement, strategies for dealing with theft, data, and information storage, comparison of costs of various financial sources for businesses, business profitability, and planning according to changing economic factors. The financial attitude is measured using three questions: setting long-term financial goals, confidence in obtaining financing, and rationality of financial planning.

Several studies on the effect of financial literacy on financial inclusion have been conducted. Bongomin et al. (2018) researched the relationship between financial literacy and financial inclusion. This study used a cross-sectional research design and quantitative data. This study aims to examine the interaction effect of cognition in the relationship between financial literacy and financial inclusion of the poor in rural Uganda. The research results showed that financial literacy had a significant and positive effect on financial inclusion. This study shows that there is a significant interaction effect of cognition in the relationship between financial literacy and financial

inclusion.

Shen et al. (2018) conducted a study that used a cross-sectional study design with a sample of 218 individuals from various regions in China. The research results provide evidence that 1) financial literacy and use of digital financial products are positively related to financial inclusion separately; 2) financial literacy is positively related to internet use and use of digital financial products; 3) internet use is positively related to the use of digital financial products; and 4) there is no relationship between internet use and financial inclusion.

Grohmann et al. (2018) examined the effect of financial literacy on financial inclusion at the cross-country level, which made it possible to consider institutional variations. The researcher begins the analysis by looking at the relationship between the proportion of people in a country who are financially literate and the four measures of financial inclusion. There was a positive and significant relationship between financial literacy and financial inclusion.

Koomson et al. (2019) examine the intensification of financial inclusion through the provision of financial literacy training. This study examines the impact of financial literacy training on financial inclusion and its intensity using data collected from a randomized control trial. The results showed that beneficiaries of financial literacy training were more likely to have accounts and to save. Financial literacy training only showed a significant impact on household account ownership of female beneficiaries. Male beneficiary households also only experienced an influence on their behavior in saving and receiving financial assistance. In addition, recipients of financial literacy training were more likely to intensify their financial inclusion, and the intensity of inclusion was higher for male and young beneficiary households.

Adetunji dan David-West (2019) conducted a study to analyze the effect of income and financial literacy on the frequency of formal savings in banks and other financial institutions. The results show that financial literacy significantly determines how often individuals save formally and informally. Income only has a significant effect on informal saving. One of the main implications of these findings for policymakers and financial service providers is that financial literacy interventions can be used to encourage the use of informal and formal financial services with a more positive impact on formal financial services. Another implication of this finding is in the area of the demographic groups targeted for the intervention. The results show that young women living in rural areas are more vulnerable and more financially excluded than other groups. Therefore, these women mostly save at home and with family and friends.

Lyons dan Kass-Hanna (2019) examines the impact of these different factors on traditionally vulnerable groups, such as women, youth, the less educated, and the poor and Syrian refugees in the case of the Middle East and North Africa (MENA). The study found that households living in countries with higher levels of financial literacy were more likely to engage in positive saving behaviors and formal borrowing. The study also found that countries with better financial and technological infrastructure, higher levels of human development, better political stability, and legal rights, were more likely to engage in financially inclusive behavior. In addition, the findings of this study indicate that the impact of financial literacy, infrastructure, and other macro-socioeconomic factors is not evenly related to all individuals in the MENA region. The study found a significant increase in the average financial inclusion outcome.

Morgan dan Long (2020) examined the effect of financial literacy on financial inclusion and saving behaviors in Laos. The results showed that financial literacy was positively and significantly related to financial inclusion. Higher income is also positively and significantly associated with financial inclusion. The estimation results confirm the positive and significant effect of financial literacy on financial inclusion scores and its two sub-components, implying that increased financial literacy helps increase not only financial inclusion in general but also holding and active consumption of financial products.

Bongomin et al. (2020) conducted a study to determine the mediating effect of social networks on the relationship between financial literacy and the financial inclusion of the poor by microfinance banks in developing countries. The study results showed that financial literacy influenced financial inclusion significantly and positively. The study results also reveal that social networking and financial inclusion are significantly and positively related. Financial literacy and social networks are related significantly and positively. Social networks significantly and positively mediate the relationship between financial literacy and financial inclusion.

Al-Sarraf et al. (2018) examined the role of social capital in promoting financial literacy and financial inclusion in Qatar. Researchers tested several hypotheses that the higher financial literacy of blue-collar expatriate workers in Qatar has a positive impact on financial inclusion. Social capital positively moderates the relationship between financial literacy and financial inclusion. The research found that higher financial literacy of expatriate blue-collar jobs in Qatar has a positive impact on financial inclusion.

Several studies on the effect of financial literacy on financial resilience have been conducted. Hassan et al. (2018) empirically examine financial literacy factors that contribute to individual financial resilience in the face of economic changes during the economic crisis. The findings show that all the financial literacy factors (preference for numerical information, attitude towards money, need for cognition, and money planning) were significantly related to individual resilience.

Klapper and Lusardi (2019) provide evidence on financial literacy and financial resilience. Financial literacy was also significantly higher for workers and entrepreneurs, compared to non-working adults. By using per capita gross domestic product (GDP) as a proxy for income, there is a significant positive relationship between income and financial literacy in rich countries. In poor countries, no significant relationship between income and financial literacy.

Lusardi et al. (2020) researched building financial literacy and financial resilience. This study uses the 2020 TIAA Institute-GFLEC Personal Finance (P-Fin) index to show that many American families were financially fragile before the COVID-19 pandemic hit the United States economy. Financial vulnerability is especially severe among certain demographic groups, such as low-income African Americans. The research also shows that financial vulnerability is related to financial literacy.

Pandin et al. (2021) conducted a study to analyze the effect of financial structure, financial literacy, and financial behavior on household financial resilience. Financial inclusion and financial decisions are intervening variables. Financial literacy has a significant effect on financial inclusion. Financial literacy has a significant effect on family financial resilience. Financial inclusion has a significant and negative effect on family financial resilience.

Several studies on the effect of financial inclusion on financial resilience have been carried out. George (2020) examined the level of digital financial literacy as the main step needed toward much better financial literacy and financial inclusion. The findings suggest that external forces such as demonetization are affecting digital financial literacy, and governments and fintech companies need to take measurable steps to encourage people to use digital tools and explain the co-benefits of ensuring user-friendly and rewarding technology. Digital financial literacy has an impact on financial inclusion.

Moore et al. (2019) provide evidence that well-designed financial products and services can increase the resilience of low-income families by helping them prepare for risk, reduce risk, increase investment in the face of risk, and respond when surprises occur. This study also reviews the evidence for the role of financial inclusion on resilience to inform policymakers of effective strategies.

Hussain et al. (2019) explore the impact of financial inclusion on financial resilience in Bangladesh, using World Bank data on global financial inclusion. The research found that respondents with financial accounts were more resilient than those without accounts. Respondents with financial accounts were 1.4 times more resilient financially than those without accounts.

Swamy (2019) conducted a study covering financial inclusion beneficiaries in the Shimoga district of Karnataka state in India. This study looks at significant positive changes in the income levels of beneficiaries that impact the resilience of poor households. This study also sees clear changes in the living conditions of the rural poor, especially on the economic side and relatively on the social side due to the role of self-help groups (SHGs). Financial inclusion has a positive impact on poverty levels and living standards of the poor and more specifically on women's economic empowerment. The results show that financial inclusion is beneficial in strengthening the resilience of poor households in India.

Pomeroy et al. (2020) stated that the lack of access to financial services leaves fishing households and fishing businesses with limited options for obtaining financing and managing cash flows for family expenses or business investments. The lack of access is filled by informal lenders who can also be major buyers of fish or boat owners. Access to formal financial services, also known as financial inclusion, can increase household financial resilience. Financial inclusion can help reduce the different vulnerabilities of poor fishing households and rural communities and lead to increased economic resilience.

Pandin et al. (2021) conducted a study to analyze the effect of financial structure, financial literacy, and financial behavior on household financial resilience, where financial inclusion and financial decisions are intervening variables in families of cancer survivors in East Java during the Covid-19 pandemic. Research shows that financial inclusion as the intervening variable has a negative significant effect on financial resilience.

Sakyi-Nyarko et al. (2022) examined the effect of gender differences in financial inclusion on household financial resilience using repeated cross-sectional data from two consecutive large-scale surveys of Ghanaian households. The research found that financial inclusion significantly increases household financial resilience. The results of

the gender and locality disaggregated analysis show that the effect of financial inclusion on household resilience does not differ significantly by gender or locality. The results show that savings and formal account holdings produce a more pronounced resilience effect, with m-money having the least impact.

Research related to financial literacy, financial inclusion, and financial resilience that has been described previously is mapped in Table 1.

Table 1. Mapping research on financial literacy, financial inclusion, and financial resilience

Researcher/Year	Financial Literacy	Financial Inclusion	Financial Resilience
1. Hassan et al., 2018	x		x
2. Klapper and Lusardi, 2019	x		x
3. Lusardi et al., 2020	x		x
4. Pandin et al., 2021	x	x	x
5. Bongimin et al., 2018	x	x	
6. Sarraf et al., 2018	x	x	
7. Shen et al., 2018	x	x	
8. Grohmann et al., 2018	x	x	
9. Koomson, et al., 2019	x	x	
10. Adetunji et al., 2019	x	x	
11. Lyons dan Hanna, 2019	x	x	
12. Morgan dan Long, 2020	x	x	
13. Bongomin et al., 2020	x	x	
14. George, 2020	x	x	
15. Moore et al., 2019		x	x
16. Hussain et al., 2019		x	x
17. Swamy, 2019		x	x
18. Pomeroy et al., 2020		x	x
19. Nyarko et al., 2022		x	x

Source: Research articles, 2022

## 5. Conclusion and recommendation

The results of the study indicate that there is no consensus on financial literacy, financial inclusion, and financial resilience measurement. Most of the research results show a positive influence of financial literacy on financial inclusion and a positive impact of financial literacy and financial inclusion on financial resilience.

Furthermore, this study suggests some recommendations for the consideration of future scholars. First, further research could be involved in analyzing the factors that influence financial literacy in entrepreneurs. Second, future studies may also benefit from qualitative studies as this is a gap that future researchers need to fill. Last but not least, the literature review can be extended by extending the research period.

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