

The Role of Fintech Adoption in Enhancing Financial Literacy and Financial Well-Being in Emerging Markets

Larasati Dewi Anggraini ^{1*}, Aditya Rama Santoso ², Antonio Villanueva Reyes ³

¹ Faculty of Economics and Business, Universitas Atma Jaya Yogyakarta, Indonesia

² Faculty of Economics and Business, Universitas Indonesia, Indonesia

³ School of Economics, University of the Philippines Diliman, Philippines

*Corresponding Author: larasati.anggraini@uajy.ac.id

Received: 28/09/2025 | Revised: 20/11/2025 | Accepted: 16/12/2025 | Published: 26/12/2025

Abstract : Fintech adoption has expanded rapidly in emerging markets and reshaped how individuals access financial services. This study examines the role of fintech adoption in enhancing financial literacy and financial well-being. It focuses on emerging market contexts where digital financial services increasingly substitute traditional banking channels. The study adopts a quantitative approach and analyzes survey data collected from fintech users in emerging economies. Fintech adoption is measured through usage of digital payments, mobile banking, and financial applications. Financial literacy is captured through knowledge, skills, and confidence in managing digital financial products. Financial well-being reflects perceived financial security, control, and satisfaction. The findings show that fintech adoption has a direct positive effect on financial literacy. Higher financial literacy, in turn, improves financial well-being. Fintech adoption also exerts an indirect effect on financial well-being through financial literacy, confirming its mediating role. These results support prior evidence that digital financial tools enhance inclusion and capability when users understand how to utilize them effectively (Zhang & Fan, 2024; Bushra & Mir, 2024). The study contributes to the fintech and financial inclusion literature by clarifying the mechanism linking technology adoption and individual welfare. Practical implications highlight the need for policies that integrate fintech development with financial education initiatives.

Keywords : *fintech adoption, financial literacy, financial well-being, emerging markets, financial inclusion.*

How to Cite: Anggraini, L. D., Santoso, A. R., & Reyes, A. V. (2025). The role of fintech adoption in enhancing financial literacy and financial well-being in emerging markets. *Journal of Economics and Management*, 3(3), 123–130. <https://doi.org/10.70716/ecoma.v3i3.337>

INTRODUCTION

Fintech has transformed the delivery of financial services in emerging markets. Digital payments, mobile banking, peer to peer lending, and investment platforms now reach users who were previously excluded from formal finance. This transformation reduces transaction costs, expands access, and reshapes financial behavior. Yet access alone does not guarantee better outcomes. Users must understand products, risks, and choices. Financial literacy therefore becomes central to realizing the benefits of fintech adoption.

Emerging markets face persistent gaps in financial inclusion and capability. Large segments of the population lack basic financial knowledge and rely on informal mechanisms. Fintech promises scale and speed, but it also introduces complexity. Digital

interfaces, algorithmic decisions, and data driven products can overwhelm users with limited literacy. Prior research shows that without adequate knowledge, digital finance may increase vulnerability rather than well being (Bushra & Mir, 2024; Hoang & Le, 2025). This tension motivates the present study.

Financial literacy refers to the ability to understand financial concepts, evaluate options, and make informed decisions. In digital contexts, literacy extends to navigating apps, understanding fees, managing security, and interpreting digital information. Studies emphasize that digital financial literacy differs from traditional literacy and requires targeted skills (Ayuning Gumilar et al., 2024; Zhang & Fan, 2024). Fintech adoption can support learning by repeated use and feedback. It can also hinder learning when interfaces obscure risks or encourage impulsive behavior.

Financial well being reflects perceived control, security, and satisfaction with one's financial situation. It includes short term resilience and long term stability. Evidence from emerging economies suggests that digital financial inclusion can improve well being by smoothing consumption, supporting savings, and enabling investment (Du et al., 2022; Ramadhan et al., 2025). However, these benefits often depend on users' literacy and trust. Low literacy weakens the link between access and welfare outcomes.

The literature increasingly connects fintech adoption, financial literacy, and well being. Several studies find that fintech tools enhance inclusion and participation (Gupta, 2024; Guo, 2024). Others show that literacy mediates the effect of digital finance on behavior and outcomes (Prabhakaran & Mynavathi, 2025; Kowsick, 2025). Yet results vary across contexts, products, and user groups. Many studies focus on single countries or specific populations such as students or entrepreneurs. Cross cutting evidence for emerging markets remains limited.

Research also highlights heterogeneity in fintech impacts. Digital payments and mobile wallets often deliver immediate benefits through convenience and cost reduction (Dudu et al., 2024; Ebirim & Odonkor, 2024). Investment and credit platforms require higher literacy and risk assessment. Without guidance, users may overborrow or chase speculative returns (Garg, 2025; Jamal et al., 2025). This suggests that the pathway from adoption to well being is not direct. Literacy likely plays a mediating role.

Systematic reviews underline gaps in theory integration and empirical testing. Reviews note that many studies treat fintech adoption as uniformly beneficial and understate capability constraints (Falaiye et al., 2024; Vasishta & Singla, 2024). Bibliometric analyses show rising interest in the literacy well being nexus but limited causal models (Croitoru et al., 2025). There is a need for models that explain how adoption translates into outcomes and under what conditions.

Emerging markets provide a critical setting. Rapid mobile penetration coexists with uneven education and regulation. Fintech firms often target underserved users, including women and small entrepreneurs (Adeniran et al., 2024; Lestari et al., 2025). These groups may gain access but still lack the skills to optimize use. Understanding the role of literacy can inform inclusive design and policy.

This study addresses these gaps by examining the role of fintech adoption in enhancing financial literacy and financial well being in emerging markets. It proposes a mediated relationship in which fintech adoption improves literacy, which then improves well being. The study adopts a quantitative approach and tests this mechanism using survey data from fintech users. It focuses on common fintech services such as digital payments, mobile banking, and financial applications that dominate emerging market usage (Patil, 2024; Liu, 2024).

The contribution is threefold. First, the study integrates fintech adoption with literacy and well being in a single empirical model. Second, it clarifies the mediating role of financial literacy rather than assuming direct welfare effects. Third, it provides evidence relevant to emerging market policy and practice, where scaling fintech without education may yield uneven results.

The findings are expected to inform regulators, educators, and fintech providers. Policies that pair fintech expansion with literacy programs can enhance welfare outcomes. Providers can design interfaces that support learning and transparency. Users can benefit when access aligns with capability.

RESEARCH METHODS

This study adopts a quantitative research design to examine the relationships between fintech adoption, financial literacy, and financial well being in emerging markets. A quantitative approach is appropriate because it enables systematic testing of hypothesized relationships and supports empirical generalization across user groups.

Research Design and Sample

The population of this study consists of individual users of fintech services in emerging markets. Respondents are defined as adults who actively use at least one fintech application, such as digital payment platforms, mobile banking services, or financial management applications. This criterion ensures that participants have direct experience with digital financial products.

A purposive sampling technique is applied. Respondents are selected based on their engagement with fintech services over the past six months. Data are collected using a structured questionnaire distributed online through social media platforms and fintech user communities. A total of 320 questionnaires are distributed, and 287 valid responses are retained for analysis. This sample size satisfies minimum requirements for multivariate analysis and mediation testing.

Measurement of Variables

All constructs are measured using multi item indicators adapted from prior empirical studies to ensure content validity. Responses are recorded using a five point Likert scale ranging from 1 strongly disagree to 5 strongly agree.

Fintech adoption is measured through indicators capturing frequency of use, diversity of fintech services used, and perceived ease of use of digital financial applications. These indicators reflect common dimensions of fintech usage in emerging market studies (Guo, 2024; Patil, 2024).

Financial literacy is measured using indicators related to understanding of digital financial products, ability to compare options, awareness of risks and fees, and confidence in managing digital financial transactions. This measurement aligns with digital financial literacy literature that emphasizes knowledge and applied skills (Ayuning Gumilar et al., 2024; Zhang & Fan, 2024).

Financial well being is measured using subjective indicators reflecting perceived financial security, ability to meet financial obligations, control over finances, and satisfaction with current financial conditions. Subjective measures are widely used in well being research because they capture personal evaluation beyond objective income levels (Bushra & Mir, 2024).

Data Analysis Technique

Data analysis is conducted using Structural Equation Modeling with the Partial Least Squares approach. PLS SEM is chosen because it is suitable for predictive research, complex mediation models, and non normal data distributions. The analysis follows a two stage procedure.

The first stage evaluates the measurement model. Indicator reliability is assessed through outer loadings. Internal consistency reliability is examined using Cronbach's alpha and composite reliability. Convergent validity is evaluated using average variance extracted values. Discriminant validity is assessed using the Fornell Larcker criterion.

The second stage evaluates the structural model. Path coefficients, coefficient of determination, and effect sizes are examined to test the proposed hypotheses. Bootstrapping with 5000 resamples is applied to assess the significance of direct and indirect effects. Mediation is evaluated by examining the significance of indirect paths from fintech adoption to financial well being through financial literacy.

Hypothesis Testing

This study tests three hypotheses. First, fintech adoption has a positive effect on financial literacy. Second, financial literacy has a positive effect on financial well being. Third, financial literacy mediates the relationship between fintech adoption and financial well being.

Ethical Considerations

Participation in this study is voluntary. Respondents are informed about the research purpose and assured of confidentiality and anonymity. All data are used solely for academic research purposes.

This methodological framework provides a rigorous basis for examining how fintech adoption contributes to financial literacy and financial well being in emerging markets.

RESULTS AND DISCUSSION

Descriptive Statistics

Table 1 presents the descriptive statistics of the main variables. The results show moderate to high levels of fintech adoption among respondents, reflecting widespread use of digital payments and mobile financial applications in emerging markets. Financial literacy and financial well being also display relatively high mean values, indicating that respondents perceive benefits from fintech usage.

Table 1. Descriptive Statistics

Variable	Mean	Standard Deviation	Minimum	Maximum
Fintech Adoption	3.92	0.71	2.10	5.00
Financial Literacy	3.78	0.68	2.00	5.00
Financial Well Being	3.85	0.73	2.05	5.00

These results align with prior evidence that fintech services have become mainstream tools in emerging markets, especially for payments and basic financial management (Guo, 2024; Dudu et al., 2024).

Measurement Model Evaluation

The measurement model demonstrates satisfactory reliability and validity. All indicator loadings exceed the recommended threshold of 0.70. Cronbach's alpha and

composite reliability values are above 0.70, indicating strong internal consistency. Average variance extracted values exceed 0.50 for all constructs, confirming convergent validity.

Table 2. Reliability and Convergent Validity

Construct	Cronbach's Alpha	Composite Reliability	AVE
Fintech Adoption	0.84	0.89	0.67
Financial Literacy	0.86	0.90	0.69
Financial Well Being	0.83	0.88	0.65

Discriminant validity is established using the Fornell–Larcker criterion. The square root of AVE for each construct exceeds its correlations with other constructs, indicating that each variable captures a distinct concept.

Structural Model Results

The structural model results are summarized in Table 3. Fintech adoption has a positive and significant effect on financial literacy. Financial literacy also shows a positive and significant effect on financial well being. The direct effect of fintech adoption on financial well being remains significant but weaker when financial literacy is included, indicating partial mediation.

Table 3. Structural Path Coefficients

Hypothesized Path	Path Coefficient	t-value	p-value
Fintech Adoption → Financial Literacy	0.52	8.47	0.000
Financial Literacy → Financial Well Being	0.43	6.92	0.000
Fintech Adoption → Financial Well Being	0.21	3.18	0.002

The coefficient of determination shows that fintech adoption explains 27 percent of the variance in financial literacy, while fintech adoption and financial literacy together explain 46 percent of the variance in financial well being. These values indicate moderate explanatory power for behavioral and welfare research.

Mediation Analysis

The mediation test confirms that financial literacy plays a significant mediating role. The indirect effect of fintech adoption on financial well being through financial literacy is positive and statistically significant.

Table 4. Mediation Effect

Indirect Path	Indirect Effect	t-value	p-value
Fintech Adoption → Financial Literacy → Well Being	0.22	5.61	0.000

This finding supports studies showing that fintech adoption improves well being primarily by enhancing users' financial knowledge and confidence (Prabhakaran & Mynavathi, 2025; Zhang & Fan, 2024). Access alone is insufficient. Capability determines outcomes.

Discussion

The results provide clear empirical evidence that fintech adoption enhances financial literacy in emerging markets. Frequent use of digital financial tools exposes users to financial information, transaction feedback, and decision making processes. This supports arguments that fintech acts as a learning platform rather than merely a delivery channel (Pillai et al., 2023; Ayuning Gumilar et al., 2024).

Financial literacy shows a strong positive effect on financial well being. Users who understand digital financial products report higher control and satisfaction. This finding is consistent with prior research linking literacy to improved financial behavior and welfare outcomes (Bushra & Mir, 2024; Kowsick, 2025).

The mediation results highlight that fintech adoption affects well being largely through literacy. This explains why some fintech initiatives fail to deliver welfare gains. Without adequate understanding, users cannot fully leverage digital services and may even face higher risks, such as overspending or poor investment choices (Garg, 2025; Jamal et al., 2025).

Overall, the findings reinforce the view that fintech and financial literacy are complementary. Fintech expands access. Literacy converts access into well being. For emerging markets, this implies that fintech driven inclusion strategies must integrate education and user capability development to achieve sustainable financial well being.

CONCLUSION

This study examines the role of fintech adoption in enhancing financial literacy and financial well being in emerging markets. The empirical results provide consistent evidence that fintech adoption has a positive and significant effect on financial literacy. Users who actively engage with digital financial services gain better understanding of financial products, transactions, and risk management. This finding confirms that fintech functions not only as an access mechanism but also as an informal learning environment.

The results also show that financial literacy has a strong positive effect on financial well being. Individuals with higher levels of financial knowledge report better financial control, greater confidence in decision making, and higher perceived welfare. Moreover, fintech adoption directly affects financial well being, although the magnitude of this effect decreases when financial literacy is included in the model.

The mediation analysis demonstrates that financial literacy partially mediates the relationship between fintech adoption and financial well being. This indicates that fintech improves well being mainly by strengthening users' financial capabilities. Access to digital finance alone is insufficient to ensure welfare gains. Capability and understanding play a decisive role.

These findings contribute to the fintech and financial inclusion literature by clarifying the mechanism through which fintech adoption translates into welfare outcomes. Practically, the results suggest that policymakers and fintech providers in emerging markets should integrate financial education into digital finance ecosystems. Such integration can maximize the welfare impact of fintech driven inclusion initiatives.

REFERENCES

- Adeniran, I. A., Abhulimen, A. O., Obiki-Osafiele, A. N., et al. (2024). Global perspectives on FinTech: Empowering SMEs and women in emerging markets for financial inclusion. *International Journal of Frontline Research in Multidisciplinary Studies*, 3(2), 27–39. <https://doi.org/10.56355/ijfrms.2024.3.2.0027>
- Ayuning Gumilar, D. W., Sangka, K. B., & Totalia, S. A. (2024). Digital financial literacy and digital financial inclusion in the era of digital disruption: Systematic literature review. *Formosa Journal of Multidisciplinary Research*, 3(5), 921–936. <https://doi.org/10.55927/fjmr.v3i5.9213>

- Bushra, & Mir, M. A. (2024). Digital financial literacy and financial well-being. In *Advances in finance, accounting, and economics* (Chap. 3). *IGI Global*. <https://doi.org/10.4018/979-8-3693-1750-1.ch003>
- Croitoru, I. M., Dragan, P. P., Ignat, N. D., et al. (2025). Exploring financial literacy in higher education with the help of FinTech: A bibliometric analysis of linkages to access, behavior, and well-being through digital innovation. *FinTech*, 4(1), Article 0004. <https://doi.org/10.3390/fintech4010004>
- Du, Q., Zhou, F., Yang, T., et al. (2022). Digital financial inclusion, household financial participation and well-being: Micro-evidence from China. *Emerging Markets Finance and Trade*, 58(8), 2150–2166. <https://doi.org/10.1080/1540496X.2022.2153592>
- Dudu, O. F., Alao, O. B., & Alonge, E. O. (2024). Advancing financial inclusion through digital payment platforms in emerging markets. *Financial and Accounting Research Journal*, 6(11), 1696–1708. <https://doi.org/10.51594/farj.v6i11.1696>
- Ebirim, G. U., & Odonkor, B. (2024). Enhancing global economic inclusion with fintech innovations and accessibility. *Financial and Accounting Research Journal*, 6(4), 1067–1078. <https://doi.org/10.51594/farj.v6i4.1067>
- Falaiye, T., Elufioye, O. A., Awonuga, K. F., et al. (2024). Financial inclusion through technology: A review of trends in emerging markets. *International Journal of Management and Economic Research*, 6(2), 776–792. <https://doi.org/10.51594/ijmer.v6i2.776>
- Garg, K. (2025). How has the introduction of digital financial products altered portfolio preferences and savings rates in emerging markets? *International Journal for Multidisciplinary Research*, 7(5), 56095. <https://doi.org/10.36948/ijfmr.2025.v07i05.56095>
- Guo, Z. (2024). The application of fintech in emerging markets and its impact on financial inclusion. *Scientific Journal of Economics and Management Research*, 6(4), 112–124. <https://doi.org/10.54691/d0nm2y19>
- Gupta, V. (2024). What role do fintech companies play in enhancing financial inclusion in emerging markets? *European International Journal of Business and Management Studies*, 10(1), 193–205. <https://doi.org/10.53555/eijbms.v10i1.193>
- Hoang, V. H., & Le, T. L. H. (2025). The interplay of financial literacy, digital finance adoption, and behavioral biases in investment decision-making. *International Journal of Innovative Research and Scientific Studies*, 8(6), 9476–9490. <https://doi.org/10.53894/ijirss.v8i6.9476>
- Jamal, M. A., Asghar, S., Farhat, A. B., et al. (2025). Trusting technology: The role of financial literacy and technological savviness in shaping fintech adoption. *Deleted Journal*, 5(3), 598–612. <https://doi.org/10.62019/abgmce.v5i2.150>
- Kouam, A. W. F. (2024). Steering the digital shift: The role of fintech in transforming banking in emerging markets. *Research Square Preprint*. <https://doi.org/10.21203/rs.3.rs-5636127/v1>
- Kowsick, N. P. (2025). Impact of financial literacy, trust in financial institutions, and technology adoption on economic well-being through financial inclusion. *ANUVAL Journal*, Article 223. <https://doi.org/10.52783/anual.223>
- Lestari, E. D., Kurniasari, F., & Loebiantoro, I. Y. (2025). Financial literacy and FinTech access as drivers of financial inclusion and business sustainability among women entrepreneurs. *Indonesian Journal of Sustainability Accounting and Management*, 9(1), 7270–7285. <https://doi.org/10.20448/ijksam.v9i1.7270>

- Liu, Y. (2024). Research on FinTech promoting financial innovation and growth in emerging markets. *SHS Web of Conferences*, 200, 01006. <https://doi.org/10.1051/shsconf/202420001006>
- Margi Utami, N., Pradana, M., & Hidayat, A. M. (2025). Financial literacy and fintech use's effects on Indonesian young adults' financial well-being. *Journal of Ecohumanism*, 4(1), 5943–5958. <https://doi.org/10.62754/joe.v4i1.5943>
- Patil, M. A. (2024). Research paper on the adoption and use of financial technology. *Indian Scientific Journal of Research in Engineering and Management*, 8(2), 30529. <https://doi.org/10.55041/ijsrem30529>
- Pillai, D. A., Singh, A. S., Bhosale, T., et al. (2023). A perspective on the application of fintech as a gateway for financial literacy. *IEEE ICIT Proceedings*, 1–6. <https://doi.org/10.1109/icit58056.2023.10225810>
- Prabhakaran, S., & Mynavathi, L. (2025). Does fintech usage alter the relationships between financial literacy, behaviour and well-being? *Organizations and Markets in Emerging Economies*, 16(6), 1–19. <https://doi.org/10.15388/omee.2025.16.6>
- Ramadhan, A. R., Vidiyanto, M. A., Muharam, H., et al. (2025). Fintech and financial inclusion: Evidence from emerging markets. *Research Horizon*, 5(3), 598–611. <https://doi.org/10.54518/rh.5.3.2025.598>
- Sharma, P., & Gupta, M. (2023). Assessing the role of fintech in financial inclusion in emerging markets. *ShodhKosh Journal of Visual and Performing Arts*, 4(2), 4629–4642. <https://doi.org/10.29121/shodhkosh.v4.i2.2023.4629>
- Sibarani, B. B., Prihatni, R., & Gurendrawati, E. (2025). Kontribusi fintech pada inklusi keuangan di negara pasar berkembang: Sebuah meta-analysis. *Jurnal Ilmiah M-Progress*, 15(2), 1466–1480. <https://doi.org/10.35968/mpu.v15i2.1466>
- Vasishta, P., & Singla, A. (2024). Emerging trends in FinTech and financial inclusion: A review and bibliometric analysis. *African Journal of Science, Technology, Innovation and Development*, 16(4), 1–14. <https://doi.org/10.1080/20421338.2024.2353428>
- Zhang, Y., & Fan, L. (2024). The nexus of financial education, literacy and mobile fintech. *International Journal of Bank Marketing*, 42(5), 1–20. <https://doi.org/10.1108/ijbm-09-2023-0531>