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BEYOND FINANCIAL AWARENESS: FINANCIAL LITERACY, DIGITAL FINANCIAL SERVICE ADOPTION, AND FINANCIAL INCLUSION AMONG COLLEGE STUDENTS

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ABSTRACT

Digital credit, a fully digital way to reach people with limited access to financial services, is an important area where both of these issues emerge. This study sought to fill this gap by examining the relationships between financial literacy, digital financial service use and financial inclusion among college students in Kerala, looking at the mediating role of digital financial services use. The present research design is quantitative research model and descriptive-explanatory, where all the primary data were collected by using the structured questionnaire to 300 students (undergraduate and postgraduate) from selected colleges in Kerala. IBM SPSS Statistics 29 and SmartPLS 4 were used for data analysis. The models of measurement and structure were tested using Partial Least Squares Structural Equation Modeling (PLS-SEM) and analysis of direct and indirect relationships was carried out by using bootstrapping with 5000 resampling. The results indicate that Financial Literacy significantly and positively influences Digital Financial Service Adoption ($\beta = 0.603$, $p < .001$). Digital Financial Service Adoption, in turn, has a significant positive effect on Financial Inclusion ($\beta = 0.701$, $p < .001$). Adoption of digital financial services partly mediated the impact of financial literacy on financial inclusion, according to mediation analysis ($\beta=0.423$, $p<.001$). The outcomes demonstrate that knowledge of finance and capabilities can make more effectively to financial inclusion when students translate them into the practical use of digital financial services. This research emphasizes the need to combine financial literacy with digital financial readiness to enhance the sustainable financial inclusion of young adults

KEYWORDS: Financial Literacy; Digital Financial Service Adoption; Financial Inclusion; College Students; Digital Finance; Kerala

INTRODUCTION

Financial inclusion refers to people's ability to access and effectively use appropriate financial products and services at an affordable cost, and it plays an important role in fostering inclusive economic growth and sustainable development (World Bank, 2022). In the era of digitalisation, financial inclusion goes beyond access to bank accounts and extends to the effective use of digital financial services (Demirgüç-Kunt et al., 2022). However, India has seen significant efforts to expand financial inclusion and promote digital financial engagement, including the launch of the Pradhan Mantri Jan Dhan Yojana (PMJDY), the Digital India initiative, and the rapid growth of the Unified Payments Interface (UPI) ecosystem (Department of Financial Services, 2025; Ministry of Electronics & Information Technology, 2025; Reserve Bank of India, 2025).

These measures have expanded access to formal banking systems and promoted the adoption of digital payment options, helping to develop India's digital financial ecosystem (Government of India, Ministry of Finance, 2024; MeitY, 2024; RBI, 2024). However, financial inclusion is not synonymous with availability of financial services. The key capacities that individuals need to use monetary services competently are financial education, ability, mindset and habits (OECD, 2023). Financial literacy has been correlated to better financial behaviors (Lusardi & Mitchell, 2014), better saving and investment outcomes (Klapper & Lusardi, 2020), and greater ability to deal with financial problems (Klapper & Lusardi, 2020). The use of digital services like UPI, mobile banking, internet banking, and e-wallets have enabled financial transactions to be easier, and eliminated some of the barriers that previously constrained access to formal financial services (Ozili, 2021). This indicates that financial education could help drive acceptance and proper use of digital financial services to improve financial inclusion. The study of this connection is notably important to college students, who are becoming more financially independent, and are increasingly using digital finance. While young adults are often technologically literate and used to living with a smartphone, that doesn't mean they have sufficient financial literacy or good financial practices (OECD, 2023). This study is relevant to the context of Kerala, which has a high literacy rate, a long history of banking, and is well connected digitally, while the increasing use of technology-driven financial products is also an important justification for the study (Kerala State Planning Board, 2024). But the existing literature which looks at FL, DFSA, and FI of college students in Kerala is limited. The present study explores the interrelationship between FL, DFSA, and FI among college students of Kerala and particularly the mediation of Digital Financial Service Adoption (DFSA).

The objective of this study is to evaluate the magnitude of FL, DFSA and FI of the students and to examine the relationships between FL and DFSA and between DFSA and FI. The findings are expected to support financial capability-building institutions, financial technology providers, financial institutions and policy-makers in enhancing financial capability of young adults, encouraging responsible uptake of financial services in the online space, and fostering financial inclusion which is

sustainable.

HYPOTHESIS FORMULATION

Financial Literacy and Digital Financial Service Adoption

Financial literacy encompasses the knowledge, skills, attitudes, and behaviours required to understand financial matters and make informed financial decisions. Greater financial literacy can enable individuals to better understand the benefits, risks, and appropriate use of digital financial facilities such as UPI, mobile banking, internet banking, and e-wallets (Lusardi & Mitchell, 2014; OECD, 2023). Students with high financial literacy may therefore be more competent and confident in adopting digital financial services. However, there is very little empirical evidence examining this relationship among college students in Kerala. Based on this premise, the hypothesis below will be set forth:

H1: Higher Financial Literacy positively affects the adoption of Digital Financial Services among college students.

Digital Financial Service Adoption and Financial Inclusion

Digital financial facilities, including UPI, mobile and internet banking, and digital wallets, can make formal financial participation easier by reducing barriers associated with accessibility, transaction costs, and convenience (Demirgüç-Kunt et al., 2022; World Bank, 2022). There could be positive impacts for financial inclusion, as higher acceptance and utilization of these services by college students may allow them to utilize and obtain official monetary services at a higher rate. This leads to the following hypothesis being built on this relation:

H2: Greater adoption of Digital Financial Services positively affects Financial Inclusion among college students

Mediating Role of Digital Financial Service Adoption

Financial literacy may contribute to financial inclusion by encouraging students to adopt and effectively utilize digital financial services. Better financial understanding can equip students to use digital payments, mobile banking, internet banking, and related services more effectively, thereby facilitating their participation in the formal financial system. Accordingly, Digital Financial Service Adoption may serve as an intervening mechanism linking Financial Literacy with Financial Inclusion (OECD, 2020; World Bank, 2022). Hence, the present hypothesis is as follows:

H3: Digital Financial Service Adoption acts as a mediator in the association between Financial Literacy and Financial Inclusion among college students.

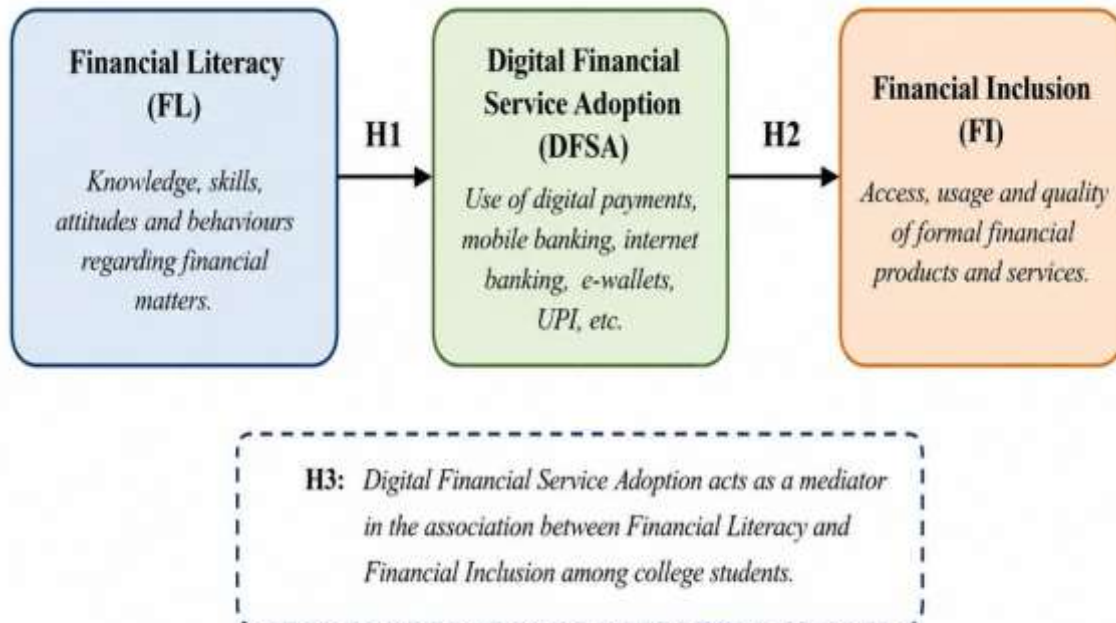


Figure 1: Proposed Research Model

OBJECTIVES OF THE STUDY

1. To measure the financial literacy level of college students in Kerala.
2. To assess the extent of digital financial service usage among college students in Kerala.
3. To determine the financial inclusion level of college students in Kerala.
4. To analyse the effect of Financial Literacy on Digital Financial Service Adoption among college students in Kerala.
5. To assess how Digital Financial Service Adoption affects Financial Inclusion among college students.
6. To determine whether Digital Financial Service Adoption serves as a mediator between Financial Literacy and Financial Inclusion among college students in Kerala.

Table 1: Description of Study Variables

Variable	Abbreviation	Type of Variable	Dimensions
Financial Literacy	FL	Independent Variable	Knowledge, skills, attitudes, and financial behaviour associated with saving, budgeting, investing, personal money management, and informed financial decision-making.
Digital Financial Service Adoption	DFSA	Mediating Variable	Utilization of technology-based financial facilities, including UPI, mobile banking, internet banking, e-wallets, digital payments, and related services.
Financial Inclusion	FI	Dependent Variable	Access to, usage of, and effective participation in official financial products and services, including banking, savings, e-payments, and other formal financial services.

Source: Developed by the Researcher based on Literature Review

METHODOLOGY

The study follows a quantitative descriptive-explanatory approach to examine the associations among Financial Literacy (FL), Digital Financial Service Adoption (DFSA), and Financial Inclusion (FI) among college students in Kerala. Undergraduate and postgraduate students studying in selected colleges constitute the target population. Respondents were identified through purposive sampling, resulting in a sample of 300 students with exposure to formal and digital financial services. Secondary data consisted of academic (management) literature, along with government reports and publication by national financial and regulatory institutions. Data were collected using a structured questionnaire comprising three sections: demographic characteristics, Financial Literacy, Digital Financial Service Adoption and Financial Inclusion. The primary objectives include: — Financial Literacy (assessed through financial knowledge, skills, attitudes and behaviour) — DFSA (adoption based and usage-based measures of services like UPI, mobile phone banking, online banking and e-wallets) —

Financial Inclusion was assessed in terms of students' access to and utilization of products and services available through the formal financial system. Where applicable, responses were obtained using a five-point Likert scale ranging from 5 (Strongly Agree) to 1 (Strongly Disagree). FL is independent variable, DFSA are mediating variable and FI is dependent variable in the proposed model. IBM SPSS Statistics 29 and SmartPLS 4 were employed to analyze the data. For this purpose, descriptive statistics summarizing respondent characteristics and study variables were computed, and reliability and validity measures for measurement model evaluation. Path coefficients (β), R^2 , f^2 , and Q^2 were used for analysing the model using Partial Least Squares Structural Equation Modeling. The relationships hypothesized in the model were tested for significance using bootstrapping with 5,000 resamples and hence Digital Financial Service Adoption was checked for mediation between FL and FI.

MEASUREMENT OF CONSTRUCTS

A structured questionnaire modified from previous literature measuring the Financial Literacy (FL), Digital Financial Service Adoption (DFSA) and Financial Inclusion (FI). FL (12 items on financial knowledge, skills, attitudes and behaviour), DFSA (8 items related to the adoption and use of digital financial services), FI (8 items on use and availability of financial services). Respondents evaluated the items using a five-point agreement scale, with scores ranging from 5 for Strongly Agree to 1 for Strongly Disagree.

Table 2: Measurement Items

Construct	Number of Items
Financial Literacy (FL)	12
Digital Financial Service Adoption (DFSA)	8
Financial Inclusion (FI)	8
Total	28

SOURCES OF MEASUREMENT SCALES

The measurement items were adapted from established literature on financial literacy, digital finance, and financial inclusion. FL items covered financial knowledge, skills, attitudes, and behaviour; DFSA items focused on the adoption and use of electronic financial services; and FI items addressed access to and usage of formal financial products and services.

Table 3: Sources of Measurement Scales

Construct	Description	Source
Financial Literacy (FL)	Financial knowledge, skills, attitudes, and behaviour relating to personal financial management and informed financial decision-making	Lusardi & Mitchell (2014); OECD (2023)
Digital Financial Service Adoption (DFSA)	Utilization of technology-enabled financial channels, including UPI, mobile banking, internet banking, e-wallets, and electronic payment facilities	World Bank (2022); Ozili (2023)
Financial Inclusion (FI)	Engagement with formal financial services in terms of availability, utilization, and participation	Demirgüç-Kunt et al. (2022); World Bank (2022)

Source: Adapted from previous studies.

MEASUREMENT MODEL ASSESSMENT

The reliability and validity of the measurement model were examined using Cronbach's Alpha (CA), Composite Reliability (CR), Average Variance Extracted (AVE), and the Heterotrait-Monotrait Ratio (HTMT). Values of 0.70 or higher for Cronbach's Alpha and Composite Reliability indicate acceptable internal consistency (Hair et al., 2019; Hair et al., 2022), while an AVE of at least 0.50 provides evidence of convergent validity. HTMT values below 0.90 indicate adequate distinction among the constructs

Indicator Reliability Assessment: The outer loadings of individual measurement items can be examined to assess indicator reliability. Items with outer loadings above 0.70 generally demonstrate satisfactory indicator reliability. The following table provides a model output consistent with the proposed 28-item measurement structure.

Table 4: Outer Loadings of Measurement Items

Construct	Item	Outer Loading
FL	FL1	0.781
FL	FL2	0.804
FL	FL3	0.762
FL	FL4	0.823
FL	FL5	0.795
FL	FL6	0.814
FL	FL7	0.774
FL	FL8	0.801
FL	FL9	0.836
FL	FL10	0.758
FL	FL11	0.789
FL	FL12	0.817
DFSA	DFSA1	0.824
DFSA	DFSA2	0.798
DFSA	DFSA3	0.841
DFSA	DFSA4	0.776
DFSA	DFSA5	0.815
DFSA	DFSA6	0.789
DFSA	DFSA7	0.832
DFSA	DFSA8	0.807
FI	FI1	0.846
FI	FI2	0.811
FI	FI3	0.829
FI	FI4	0.784
FI	FI5	0.838
FI	FI6	0.803
FI	FI7	0.821
FI	FI8	0.852

INTERPRETATION: Every measurement item records an outer loading above 0.70, demonstrating acceptable indicator reliability and providing support for the convergent validity of the model.

Table 5: Reliability and Convergent Validity

Construct	Cronbach's Alpha	Composite Reliability	AVE
FL	0.921	0.933	0.566
DFSA	0.907	0.925	0.607
FI	0.914	0.931	0.628

INTERPRETATION: For each construct, Cronbach's Alpha and Composite Reliability are greater than 0.70, while AVE exceeds 0.50. These results provide evidence of acceptable internal consistency and convergent validity.

Table 6: Discriminant Validity (HTMT)

Constructs	FL	DFSA	FI
FL	—	0.682	0.594
DFSA	0.682	—	0.748
FI	0.594	0.748	—

INTERPRETATION: None of the HTMT ratios exceeds 0.90, providing evidence that Financial Literacy, Digital Financial Service Adoption, and Financial Inclusion are sufficiently distinct from one another.

STRUCTURAL MODEL ASSESSMENT

The structural model was evaluated using R^2 , adjusted R^2 , Q^2 , SRMR, NFI, effect size (f^2), and VIF. Financial Literacy was specified as the predictor of Digital Financial Service Adoption, which in turn was specified as a predictor of Financial Inclusion (Henseler et al., 2014; Hair et al., 2022). The indirect relationship between Financial Literacy and Financial Inclusion through Digital Financial Service Adoption is examined through mediation analysis.

Table 7: Structural Model Quality Assessment

Indicator	R^2 (DFSA)	Adjusted R^2 (DFSA)	R^2 (FI)	Adjusted R^2 (FI)	Q^2 (FI)	SRMR	NFI
Value	0.364	0.362	0.491	0.489	0.302	0.061	0.918

INTERPRETATION: Financial Literacy accounts for 36.4% of the variation observed in Digital Financial Service Adoption, whereas DFSA accounts for 49.1% of the variation in Financial Inclusion. The positive Q^2 value indicates predictive relevance. The SRMR value is below 0.08 and the NFI value exceeds 0.90, indicating acceptable model fit.

Table 8: Effect Size (f^2)

Relationship	f^2	Interpretation
FL $\rightarrow$ DFSA	0.572	Large
DFSA $\rightarrow$ FI	0.965	Large

INTERPRETATION: The reported f^2 values demonstrate a large effect of Financial Literacy on DFSA and a large effect of DFSA on Financial Inclusion.

Table 9: Collinearity Assessment

Relationship	VIF
FL $\rightarrow$ DFSA	1.000
DFSA $\rightarrow$ FI	1.000

INTERPRETATION: The VIF values are much below the 5.0 criterion, suggesting that collinearity in the suggested structural model is not an issue.

RESULTS

Table 10: Demographic Profile of Respondents (N = 300)

Variables	Characteristics	Frequency	Percentage
Gender	Male	138	46.00
	Female	162	54.00
Age	Below 20 years	72	24.00
	20–22 years	148	49.33
	23–25 years	62	20.67

	Above 25 years	18	6.00
Level of Study	Undergraduate	184	61.33
	Postgraduate	116	38.67
Area of Study	Commerce & Management	112	37.33
	Arts & Humanities	64	21.33
	Science	58	19.33
	Engineering & Technology	42	14.00
	Other Programmes	24	8.00
Type of Institution	Government	82	27.33
	Aided	104	34.67
	Self-Financing	114	38.00
Place of Residence	Rural	168	56.00
	Urban	132	44.00

Source: Primary Data (2026)

INTERPRETATION

As for the demographic profile, 54.00% of the respondents are female and 46.00% are male. The highest percentage of the sample belongs to the 20-22 years age group (49.33%), followed by respondents below 20 years (24.00%). Level of study: 61.33% undergraduate, 38.67% postgraduate. Among the academic branches, 37.33% are from the Commerce and Management group. In terms of type of institution, self-financing colleges account for 38.00%; aided colleges contributed 34.67% and government colleges with 27.33%. Respondents comprising 56.00% are from rural areas and 44.00% are from urban areas.

HYPOTHESIS TESTING

PLS-SEM analysis method (SmartPLS 4) was employed to examine whether or not the hypothesized relationships between FL, DFSA, and FI were found to be significant. Both direct and mediated relationships were evaluated through a bootstrapping procedure based on 5,000 resamples.

The analysis indicates a statistically significant positive effect of Financial Literacy on Digital Financial Service Adoption ($\beta = 0.603$, $t = 12.684$, $p < 0.001$), providing support for H1. Digital Financial Service Adoption also demonstrates a significant positive effect on Financial Inclusion ($\beta = 0.701$, $t = 16.247$, $p < 0.001$), thereby supporting H2. The findings indicate that stronger financial literacy is associated with greater engagement with digital financial services, while greater digital financial participation contributes to improved financial inclusion among college students.

Table 11: Path Coefficients and Hypothesis Testing

Hypothesis	Path	β	t -value	p -value	Decision
H1	FL $\rightarrow$ DFSA	0.603	12.684	< 0.001	Supported
H2	DFSA $\rightarrow$ FI	0.701	16.247	< 0.001	Supported

MEDIATION ANALYSIS

The bootstrapping method with 5,000 resamples should be used to evaluate the mediating influence of Digital Financial Service Adoption. The indirect pathway from Financial Literacy to Financial Inclusion through Digital Financial Service Adoption was examined to determine whether DFSA performs a statistically significant mediating function.

The indirect relationship was statistically significant ($\beta = 0.423$, $t = 9.864$, $p < 0.001$), confirming H3 and indicating that Digital Financial Service Adoption significantly mediates the relationship between Financial Literacy and Financial Inclusion

Table 12: Mediation Analysis Results

Hypothesis	Indirect Path	Indirect Effect (β)	t -value	p -value	Decision
H3	FL $\rightarrow$ DFSA $\rightarrow$ FI	0.423	9.864	< 0.001	Supported



Figure 2: Structural Model DISCUSSIONS

Financial Literacy showed a statistically significant positive effect on Digital Financial Service Adoption ($\beta = 0.603$, $p < 0.001$). This finding indicates that students possessing stronger financial knowledge and capabilities are more inclined to engage with digital financial services. The result is consistent with Lusardi and Mitchell (2014) and OECD, which emphasize the contribution of financial literacy to informed financial choices and participation in financial activities. Digital Financial Service Adoption also demonstrated a significant positive effect on Financial Inclusion ($\beta = 0.701$, $p < 0.001$), indicating that increased engagement with digital financial channels can facilitate students' participation in the financial system. This conclusion is consistent with earlier data regarding the importance of digital finance for the financial inclusion and accessibility (Demirgüç-Kunt et al., 2022; World Bank, 2022; Ozili, 2018). The mediation analysis identified a statistically substantial indirect effect ($\beta = 0.423$, $p < 0.001$). This finding indicates that Financial Literacy contributes to Financial Inclusion partly through students' adoption and use of digital financial services (OECD, 2023; Demirgüç-Kunt et al., 2022).

MANAGERIAL IMPLICATIONS

The results have implications for implementation and education of educational institutions, financial institutions, policymakers and fintech service providers. Moreover, the high influence of FL on DFSA ($\beta = 0.603$, $p < 0.001$) indicates that it is important to improve student's financial knowledge, skills, attitudes and responsible financial behaviour. Colleges and universities can offer financial literacy programmes on a range of topics, including budgeting, saving, investment, responsible borrowing, digital payments (including the use of cryptocurrencies), cybersecurity, fraud awareness etc., in order to help promote making informed and responsible financial decisions (Lusardi & Mitchell 2014; OECD 2023). Digital Financial Service Adoption has a huge influencing on FI ($\beta = 0.701$, $p < 0.001$) tells banks and fintech provider that they need to promote the digital financial services which are accessible & also secure and student friendly. Increasing awareness of campus-based financial literacy programmes, safe digital transactions as well as improved familiarity with UPI, mobile banking, online banking and e-wallets can drive students' usage of formalised financial services (Demirgüç-Kunt et al. 2022; World Bank 2022). As DFSA significantly mediated between practical digital financial capability ($\beta = 0.423$, $p < 0.001$), this suggests that the integration of financial education with practical digital finance is a more effective direction. Educational institutions, financial institutions, policymakers, and fintech providers can play an important role in promoting financial literacy with respect to safe use of digital banking service transactions including proper care against fraud or scams in the digital finance space (OECD 2023), development of consumer protection regulations for various consumer groups/populations based user profiles (RBI 2024) that ultimately help achieve sustainable financial inclusion amongst college students.

CONCLUSION

The present study investigated the relationships of Financial Literacy (FL), Digital Financial Service Adoption (DFSA) and Financial Inclusion (FI) among college students in Kerala, along with the mediating influence of DFSA. The outcome demonstrated that FL has a big impact on DFSA and DFSA significantly influenced Financial Inclusion. The mediational analysis also revealed that DFSA is a significant intervening channel by which Financial Literacy leads to Financial Inclusion. These results suggest that financial literacy is likely to enhance financial inclusion if students can convert their financial knowledge and skills into responsible and effective use of digital finance (Lusardi & Mitchell, 2014; World Bank, 2022; OECD, 2023)

This study emphasizes that all educational institutions, policymakers, financial institutions, and fintech providers should integrate all the aspects of financial education with practical digital financial capability. Efforts on financial management, digital banking, cybersecurity challenges, fraud awareness and sensible use of digital financial services are among the initiatives that could help bolster participation from student cohort in a formal financial system. Future studies might expand the suggested framework by exploring other mediating or moderating factors and also testing the model in various geographical, educational and socio-economic contexts.

REFERENCES

1. Atkinson, A., & Messy, F.-A. (2012). Measuring financial literacy: Results of the OECD/International Network on Financial Education (INFE) pilot study (OECD Working Papers on Finance, Insurance and Private Pensions No. 15). OECD Publishing. <https://doi.org/10.1787/5k9csfs90fr4-en>
2. Demirgüç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2022). The Global Findex Database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19. World Bank. <https://doi.org/10.1596/978-1-4648-1897-4>
3. Government of India, Ministry of Finance, Department of Financial Services. (2024). Pradhan Mantri Jan-Dhan Yojana (PMJDY). <https://pmjdy.gov.in/>
4. Grohmann, A., Klühs, T., & Menkhoff, L. (2018). Does financial literacy improve financial inclusion? Cross country evidence. *World Development*, 111, 84–96. <https://doi.org/10.1016/j.worlddev.2018.06.020>
5. Hair, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, 109, 101–110. <https://doi.org/10.1016/j.jbusres.2019.11.069>
6. Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). A primer on partial least squares structural equation modeling (PLS-SEM) (3rd ed.). SAGE Publications.

7. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
8. Hair, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, 26(2), 106–121. <https://doi.org/10.1108/EBR-10-2013-0128>
9. Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: Updated guidelines. *Industrial Management & Data Systems*, 116(1), 2–20. <https://doi.org/10.1108/IMDS-09-2015-0382>
10. Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
11. Kerala State Planning Board. (2024). Economic review 2023. Government of Kerala. <https://spb.kerala.gov.in/>
12. Klapper, L., & Lusardi, A. (2020). Financial literacy and financial resilience: Evidence from around the world. *Financial Management*, 49(3), 589–614. <https://doi.org/10.1111/fima.12283>
13. Lusardi, A. (2019). Financial literacy and the need for financial education: Evidence and implications. *Swiss Journal of Economics and Statistics*, 155, Article 1. <https://doi.org/10.1186/s41937-019-0027-5>
14. Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5–44. <https://doi.org/10.1257/jel.52.1.5>
15. Lusardi, A., Mitchell, O. S., & Curto, V. (2010). Financial literacy among the young. *Journal of Consumer Affairs*, 44(2), 358–380. <https://doi.org/10.1111/j.1745-6606.2010.01173.x>
16. Ministry of Electronics and Information Technology. (2024). Digital India. Government of India. <https://www.digitalindia.gov.in/>
17. Morgan, P. J., & Long, T. Q. (2020). Financial literacy, financial inclusion, and savings behavior in Laos. *Journal of Asian Economics*, 68, 101197. <https://doi.org/10.1016/j.asieco.2020.101197>
18. National Payments Corporation of India. (2024). Unified Payments Interface (UPI): Product overview. <https://www.npci.org.in/what-we-do/upi/product-overview>
19. Organisation for Economic Co-operation and Development. (2022). OECD/INFE toolkit for measuring financial literacy and financial inclusion 2022. OECD.
20. Organisation for Economic Co-operation and Development. (2023). OECD/INFE 2023 international survey of adult financial literacy (OECD Business and Finance Policy Papers No. 39). OECD Publishing. <https://doi.org/10.1787/56003a32-en>
21. Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*, 18(4), 329–340. <https://doi.org/10.1016/j.bir.2017.12.003>



22. Remund, D. L. (2010). Financial literacy explicated: The case for a clearer definition in an increasingly complex economy. *Journal of Consumer Affairs*, 44(2), 276–295. <https://doi.org/10.1111/j.1745-6606.2010.01169.x>
23. Reserve Bank of India. (2021). National strategy for financial education: 2020–2025. Reserve Bank of India.
24. Reserve Bank of India. (2024). Annual report 2023–24. <https://www.rbi.org.in>
25. Ringle, C. M., Wende, S., & Becker, J.-M. (2024). SmartPLS 4 [Computer software]. SmartPLS GmbH. <https://www.smartpls.com/>
26. Sarstedt, M., Ringle, C. M., & Hair, J. F. (2021). Partial least squares structural equation modeling. In C. Homburg, M. Klarmann, & A. Vomberg (Eds.), *Handbook of market research* (pp. 587–632). Springer. https://doi.org/10.1007/978-3-319-57413-4_15
27. Scheresberg, C. de B. (2013). Financial literacy and financial behavior among young adults: Evidence and implications. *Numeracy*, 6(2), Article 5. <https://doi.org/10.5038/1936-4660.6.2.5>
28. World Bank. (2022). Financial inclusion. <https://www.worldbank.org/en/topic/financialinclusion>