



## The contribution of commerce education to financial inclusion

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### Abstract

This paper examines the role of formal commerce education (secondary and tertiary courses in accounting, finance, business studies and entrepreneurship) in promoting financial inclusion. Drawing on international policy reports and empirical literature, the manuscript proposes and implements a mixed-methods study to evaluate whether commerce education increases access to formal financial services, improves usage patterns (account activity and product diversification), and enhances digital financial engagement. Quantitatively, the study uses a stratified survey with propensity-score matching and structural equation modeling to test mediation by financial and digital literacy; qualitatively, the study uses interviews and focus groups to unpack mechanisms and implementation barriers. Results are expected to show that commerce education — particularly curricula with practical, digital, and consumer-protection components — is positively associated with formal account ownership and active usage, although effects vary by gender and locality. The paper concludes with policy recommendations for curriculum reform, teacher capacity-building and school–financial-sector partnerships to translate classroom knowledge into meaningful financial participation.

**Keywords:** Commerce education, financial inclusion, financial literacy, digital financial literacy, education policy

### Introduction

Financial inclusion — access to and meaningful use of affordable, appropriate financial services — is a central development objective worldwide. Persistent gaps in account ownership, digital payments adoption, and usage intensity are shaped not only by supply-side constraints but also by demand-side barriers such as limited financial knowledge and trust (OECD; OECD/INFE). Formal commerce education (courses in accounting, financial management, entrepreneurship and related subjects) can be an institutional lever to raise population-level financial and digital skills, increase confidence in formal providers, and thereby advance inclusion. This study investigates the contribution of commerce education to financial inclusion outcomes among young adults, focusing on the mechanisms through which curricula translate into real financial behavior.

### Literature review

#### Financial education and inclusion: policy and evidence:

International policy bodies and research networks emphasize financial education as a complement to product access and consumer protection in advancing inclusion (OECD; INFE). Meta-analyses and reviews find that financial education improves knowledge and, under some designs, behavior — but effectiveness depends on content relevance, pedagogic approach (experiential learning), and contextual tailoring. Recent reviews focused on youth note that curricula combining practical exercises and digital tools show stronger effects than lecture-only approaches (Mancone, 2024)<sup>[2]</sup>.

**Commerce curricula and practical skills:** Commerce courses that incorporate accounting, budget management, and entrepreneurship implicitly teach financial concepts relevant to inclusion. Emerging institutional programs (e.g., Financial Market Management subject offerings in some

Indian CBSE schools) illustrate system-level moves to mainstream financial skills into secondary curricula — often supported by industry partnerships that provide certifications and experiential learning opportunities. Evidence on the specific causal contribution of formal commerce education to inclusion is still limited; much existing work examines standalone financial literacy programmes rather than full curriculum streams.

**Digital financial literacy and fintech uptake:** The rapid spread of digital payments makes digital financial literacy (DFL) a key mediator of inclusion. Studies in India and other emerging markets show that DFL predicts safer, more confident use of mobile banking and payment apps, while low DFL correlates with vulnerability to cyber fraud and low product uptake (Ravikumar, 2022<sup>[5]</sup>; Reuters reporting on cyber fraud trends). Integrating digital skills into commerce curricula therefore appears essential to capture the full inclusion benefits of commerce education.

**Gaps and open questions:** While the broad link between financial education and inclusion is supported, we still lack robust evidence on: (1) the impact of full commerce streams (vs. ad hoc financial literacy classes), (2) which curriculum elements matter most (accounting vs. entrepreneurship vs. digital finance), and (3) heterogeneity by gender, urban/rural context, and socioeconomic status. This study addresses these gaps through a mixed-methods design that combines representative survey analysis with qualitative inquiry.

### Research questions and hypotheses:

**Primary research question:** To what extent does completion of commerce education increase financial inclusion (account ownership, usage frequency, product diversity, and digital payments adoption) among young adults aged 18–30?

### Secondary questions

1. Which types of commerce coursework (accounting, entrepreneurship, digital finance) have the strongest association with inclusion?
2. Do effects differ by gender, rural/urban location, or household socioeconomic background?
3. Is the relationship mediated by measured financial literacy and digital financial literacy?

### Hypotheses

**H1:** Commerce-educated individuals are more likely to hold a formal financial account and to use financial services actively.

**H2:** Commerce curricula containing practical/digital modules have larger positive associations with digital payments adoption.

**H3:** Financial literacy and digital financial literacy partially mediate the commerce education → financial inclusion relationship.

### Methodology

#### Study design

A mixed-methods approach: (A) quantitative cross-sectional survey with quasi-experimental matching techniques and mediation analysis; (B) qualitative interviews and focus groups to unpack mechanisms, curriculum implementation quality, and stakeholder perspectives.

#### Sample and setting

**Quantitative sample:** A stratified sample of 1,200 young adults (18–30) across three geographic strata (urban, semi-urban, rural) in one country (or multiple regions if expanded). Strata include individuals who completed a commerce educational track in secondary/tertiary institutions versus peers who did not. Oversampling of women and rural respondents ensures statistical power for subgroup analysis.

**Qualitative sample:** 6 focus groups of students/recent graduates, 12 in-depth interviews with commerce teachers and local financial service/FinTech representatives.

### Measures

#### Dependent variables (financial inclusion):

- Formal account ownership (binary).
- Active account usage (transactions per month; self-reported frequency).
- Product diversity index (count of savings, credit, insurance, remittances).
- Digital payments adoption (binary + frequency).

#### Independent variables (commerce education exposure):

- **Binary indicator:** completed commerce track (secondary/tertiary).
- **Intensity index:** number of commerce modules completed.
- **Content flags:** presence of accounting, entrepreneurship, digital finance modules; presence of experiential components (internship, simulation).

#### Mediators

- Financial literacy score (standardized instrument based on OECD/INFE items).

- Digital financial literacy (validated DFL scale).
- Entrepreneurial self-efficacy.

**Controls:** Age, gender, household income, parental education, employment status, urban/rural, previous exposure to financial services in household.

### Data collection & instruments

Survey instrument draws from OECD/INFE standardized modules and validated DFL scales (Ravikumar 2022) <sup>[5]</sup>. Data collectors will ensure informed consent and confidentiality. Where feasible, self-reported usage will be cross-checked against optional transaction logs or provider confirmations.

### Analysis plan

1. Descriptive statistics and bivariate comparisons.
2. Propensity score matching (PSM) to create comparable treatment (commerce) and control groups on observables.
3. Logistic regression for account ownership; OLS or negative binomial regression for usage frequency and product counts.
4. Structural Equation Modeling (SEM) to test mediation by financial and digital literacy.
5. Subgroup analyses by gender and locality.
6. Thematic qualitative analysis (coding scheme developed inductively and deductively) to interpret mechanisms and identify implementation barriers.

### Ethical considerations

Ethical approval will be sought from an institutional review board. Respondents will provide informed consent; data will be anonymized and securely stored. Special care will be taken when interviewing minors (if included) and when collecting transaction-level data.

### Expected results (anticipated findings)

Based on prior studies and policy reports, we expect commerce education to be positively associated with account ownership and active usage; effects should be stronger where curricula include digital-finance modules and practical experience. Financial literacy and DFL are expected to mediate part of the relationship. Heterogeneity is likely: urban and higher-income respondents may realize larger usage gains from commerce education, while gender gaps may persist unless curricula include gender-sensitive components and mentoring.

### Discussion and policy implications

If results confirm hypotheses, the evidence supports scaling up commerce curricula that emphasize practical skills and digital finance. Policy recommendations include:

1. Integrating standardized DFL modules within commerce subjects,
2. Partnering schools with banks/FinTech for simulated and real account-opening drives,
3. Teacher training and provision of classroom toolkits and
4. Monitoring inclusion outcomes through education management information systems.

However, if effects are small, it signals the need to combine education with supply-side reforms (affordable accounts,

consumer protection, and safety nets) — echoing critiques that training alone is insufficient (Harvard/HKS analyses).

### Limitations

- Cross-sectional design limits causal inference (PSM mitigates but doesn't eliminate bias).
- Self-reported measures may introduce recall or social desirability bias.
- Curriculum heterogeneity complicates measurement — standardization of module taxonomy is needed.
- External validity may be limited if study is single-country; multi-country replication would strengthen generalizability.

### Conclusion

Commerce education has potential as a scalable, institutional pathway to increase meaningful financial inclusion, especially when curricula include digital finance and experiential learning. Evidence from the proposed mixed-methods study will inform curriculum reform, teacher development, and public-private partnerships that together can convert classroom knowledge into sustained financial engagement.

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