

Determinants and impacts of financial literacy in Cambodia & Viet Nam

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1. Motivation

Low level of financial literacy, even in advanced economies.

Increasing need for individuals to manage their own retirement savings and pensions → rising need to increase levels of financial literacy.

Higher financial literacy could have positive macro-level impacts on savings and financial inclusion.

To monitor progress and make cross-country comparisons, OECD/INFE developed a standardized survey instrument information on financial literacy and financial inclusion;

Limited knowledge about financial literacy in Asia (only 4 Asian economies (relatively-high income) out of 30 economies in OECD study)

Contributions:

- First implementation of the OECD/INFE survey in the CLMV countries; and
- Both countries have lower levels of per capita income than the other 30 countries in OECD study (OECD 2016)

2. Definitions of financial literacy

- “...peoples’ ability to process economic information and make informed decisions about financial planning, wealth accumulation, debt, and pensions.” (Lusardi and Mitchell, 2014:6)
- “... [a] combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing.” (OECD/INFE, 2016:47)
- Thus, financial literacy is multi-dimensional, reflecting not only knowledge but also skills, attitudes and actual behavior.

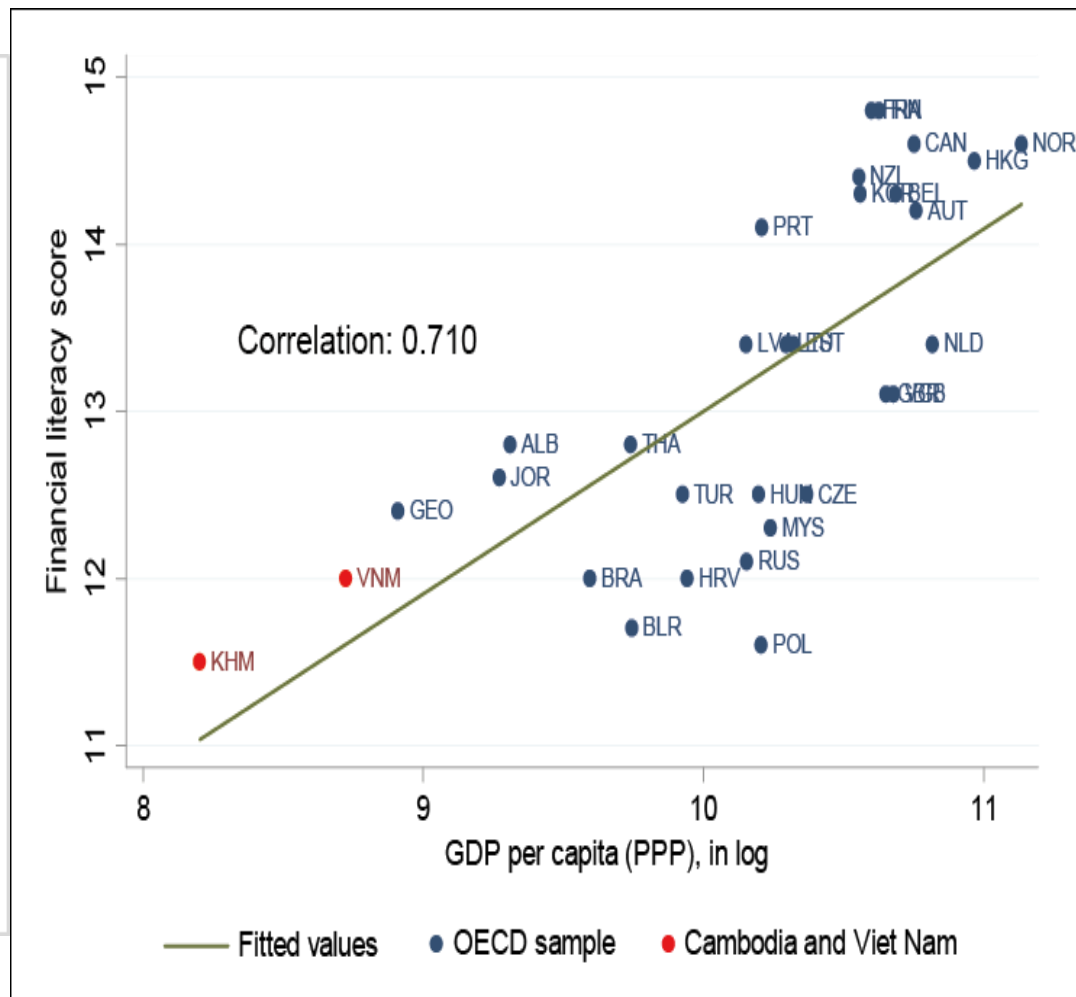
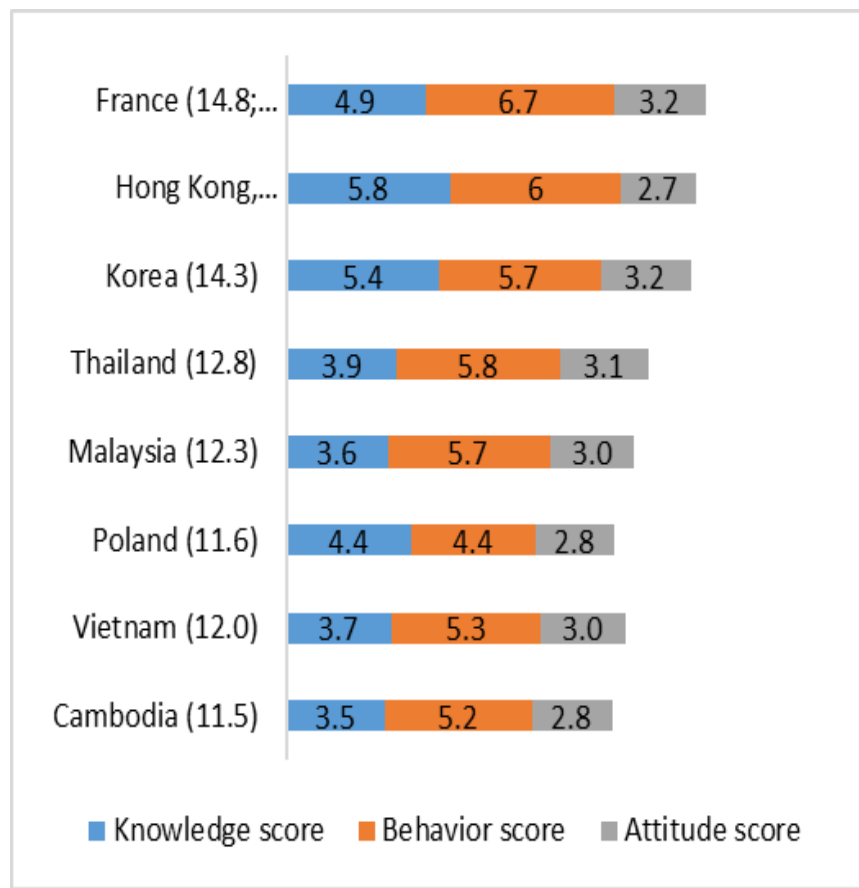
3. OECD/INFE survey of adult financial literacy

Financial literacy score has 3 sub-components:

- Financial knowledge: (score from 0 to 7): understanding of basic knowledge (or awareness) of relating to finance such as calculating interest rates, compound interest rates, risk and return evaluation, and understanding of inflation and financial diversification
- Financial behavior: (score from 0 to 9): household budgeting, saving, considered purchases, bill payments, care about financial affairs, long-term financial goals, and borrowing
- Financial attitude: (score from 1 to 5): perceptions about money, saving and spending
- Overall score is the sum of 3 sub-components (from 1 to 21)

Financial inclusion score (from 0 to 7): calculated from 7 indicators, incl. holdings of payment products, savings, insurance, credit products, product choice and family financial support in case of emergency

4. Results for Cambodia and Viet Nam in perspective



Source: OECD (2016), authors' estimates.

Financial literacy and financial inclusion scores

| | All Sample | Under 30 Years | 30–60 Years | Over 60 Years | Below Median Income | Above Median Income |
|------------------------------|------------|----------------|-------------|---------------|---------------------|---------------------|
| Cambodia | | | | | | |
| Financial knowledge | 3.49 | 3.58 | 3.47 | 3.22 | 3.33 | 3.67 |
| Share of knowledgeable | 17.0% | 17.6% | 17.4% | 13.2% | 13.0% | 21.7% |
| “Financially savvy” behavior | 5.18 | 5.13 | 5.31 | 4.82 | 5.01 | 5.39 |
| Financial attitudes | 2.80 | 2.84 | 2.78 | 2.73 | 2.72 | 2.89 |
| Financial literacy | 11.47 | 11.55 | 11.56 | 10.78 | 11.06 | 11.96 |
| Financial inclusion | 1.85 | 1.78 | 2.03 | 1.26 | 1.63 | 2.10 |
| Having savings products | 11.5% | 10.9% | 12.7% | 8.6% | 7.9% | 15.8% |
| Viet Nam | | | | | | |
| Financial knowledge | 3.67 | 3.73 | 3.66 | 3.27 | 3.60 | 3.69 |
| Share of knowledgeable | 26.6% | 29.9% | 25.7% | 14.0% | 26.5% | 26.6% |
| “Financially savvy” behavior | 5.33 | 5.11 | 5.43 | 5.40 | 4.54 | 5.59 |
| Financial attitudes | 3.01 | 2.92 | 3.05 | 2.93 | 2.98 | 3.01 |
| Financial literacy | 12.00 | 11.76 | 12.13 | 11.61 | 11.12 | 12.29 |
| Financial inclusion | 2.55 | 2.50 | 2.58 | 2.41 | 2.21 | 2.66 |
| Having savings products | 23.4% | 16.5% | 25.8% | 40.3% | 13.9% | 26.5% |

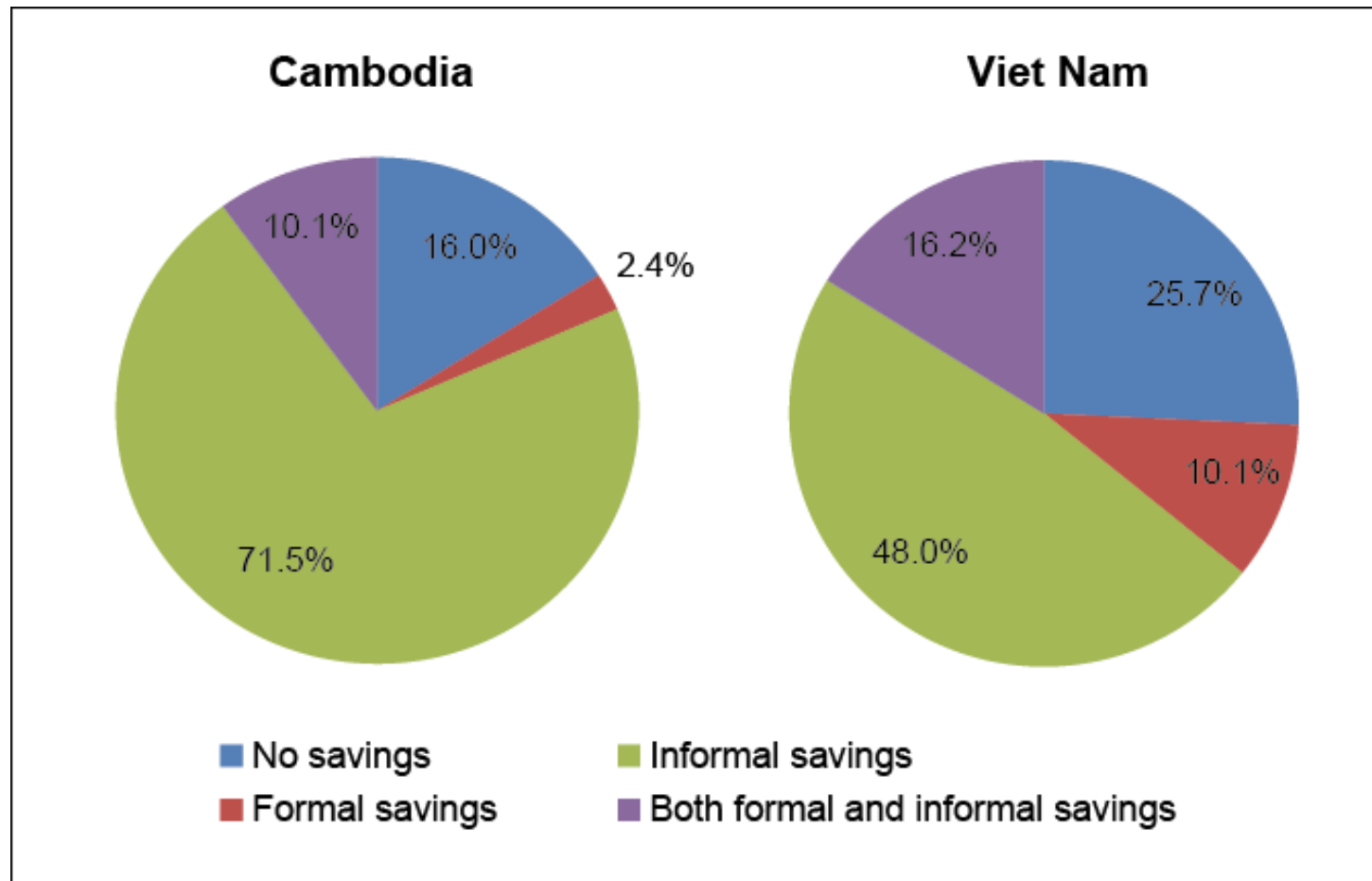
Note: Knowledgeable refers to those answering at least 5 out of 7 questions on financial knowledge correctly. A weighted sample is used to draw this figure. Please refer to Appendix 2 for statistics using an unweighted sample. Source: Authors' compilation from survey data.

Financial literacy and financial inclusion scores (cont.)

| | Urban | Rural | With Some Primary Education | With Some Secondary Education | With Some Tertiary Education |
|------------------------------|-------|-------|-----------------------------|-------------------------------|------------------------------|
| Cambodia | | | | | |
| Financial knowledge | 3.50 | 3.48 | 3.31 | 3.60 | 4.65 |
| Share of knowledgeable | 22.8% | 14.7% | 10.4% | 21.2% | 58.8% |
| “Financially savvy” behavior | 5.24 | 5.16 | 5.06 | 5.32 | 5.30 |
| Financial attitudes | 2.94 | 2.75 | 2.78 | 2.81 | 2.92 |
| Financial literacy | 11.68 | 11.39 | 11.15 | 11.73 | 12.87 |
| Financial inclusion | 2.05 | 1.77 | 1.63 | 2.04 | 2.51 |
| Having savings products | 13.5% | 10.8% | 7.5% | 14.7% | 30.2% |
| Viet Nam | | | | | |
| Financial knowledge | 4.11 | 3.40 | 3.36 | 3.81 | 3.86 |
| Share of knowledgeable | 36.5% | 20.4% | 15.1% | 32.3% | 33.0% |
| “Financially savvy” behavior | 5.89 | 4.97 | 4.87 | 5.31 | 5.98 |
| Financial attitudes | 3.03 | 2.99 | 2.97 | 3.00 | 3.06 |
| Financial literacy | 13.03 | 11.36 | 11.20 | 12.12 | 12.89 |
| Financial inclusion | 2.82 | 2.38 | 2.02 | 2.45 | 3.43 |
| Having savings products | 30.1% | 19.1% | 17.0% | 21.0% | 35.7% |

Note: Knowledgeable refers to those answering at least 5 out of 7 questions on financial knowledge correctly. A weighted sample is used to draw this figure. Please refer to Appendix 2 for statistics using an unweighted sample. Source: Authors’ compilation from survey data.

Proportion of individuals using different saving forms



Note: A weighted sample is used to draw this figure (see Appendix 2).
Source: Authors' compilation from survey data.

5. Methodology and empirical results

- Determinants of financial literacy

$$FL_i = \alpha_0 + \alpha_1 Income_i + X_i \alpha_2 + \epsilon_i$$

- Effects of financial literacy on saving behavior

$$Save_i = \beta_0 + \beta_1 FL_i + \beta_2 Income_i + X_i \beta_3 + \eta_i$$

- Effect of financial literacy on financial inclusion

$$FI_i = \gamma_0 + \gamma_1 FL_i + \gamma_2 Income_i + X_i \gamma_3 + \omega_i$$

Where FL_i : financial literacy score of individual i ; $Save_i$: saving behavior of individual i (binary variable); FI_i : financial inclusion of individual i ; $Income_i$: household income; X_i : control variables (age, occupation, education, location)

Determinants of overall financial literacy score

| | Cambodia | | Viet Nam | |
|-------------------------------|----------------------|----------------------|----------------------|----------------------|
| | (1) | (2) | (3) | (4) |
| Income | | 0.333*** [0.055] | | 0.224*** [0.064] |
| With some primary education | -0.810*** [0.179] | -0.629*** [0.172] | -0.525*** [0.100] | -0.460*** [0.100] |
| With some secondary education | -0.496*** [0.168] | -0.370** [0.160] | -0.202** [0.083] | -0.166** [0.084] |
| Aged under 30 | 0.189 [0.121] | 0.196* [0.118] | -0.141 [0.153] | -0.147 [0.150] |
| Aged from 30 to 60 | 0.254** [0.114] | 0.269** [0.110] | -0.017 [0.148] | -0.068 [0.144] |
| Male | 0.085 [0.069] | 0.074 [0.068] | -0.043 [0.067] | -0.046 [0.066] |
| Self-employed | 0.526*** [0.112] | 0.457*** [0.111] | 0.231** [0.093] | 0.202** [0.092] |
| Salaried employee | 0.452*** [0.122] | 0.358*** [0.120] | 0.120 [0.086] | 0.120 [0.084] |
| Housewife | 0.407*** [0.135] | 0.401*** [0.131] | 0.151 [0.125] | 0.130 [0.120] |
| Living in rural area | -0.110 [0.084] | -0.120 [0.083] | -0.367*** [0.072] | -0.288*** [0.072] |
| Intercept | 0.375 [0.281] | -1.553*** [0.418] | -0.056 [0.344] | -3.608*** [1.014] |
| No. of observations | 1,035 | 1,035 | 1,000 | 1,000 |
| R squared | 0.0979 | 0.135 | 0.3325 | 0.3466 |

Note: Figures in brackets are standard deviations. ***, **, and * denote coefficients significant at the 1%, 5%, and 10% statistical levels, respectively. The dependent variable is the financial literacy z-score. Province dummies are included in all estimates. The weighted sample is used in all estimations.

Source: Authors' estimates.

Effect of financial literacy on decision to save (IV)

| | Cambodia | | Viet Nam | |
|---|---------------------|----------------------|----------------------|----------------------|
| | (1) | (2) | (3) | (4) |
| | 2nd Stage | 1st Stage | 2nd Stage | 1st Stage |
| Financial literacy | 0.158** [0.065] | | 0.073** [0.029] | |
| Income | 0.010 [0.027] | 0.333*** [0.050] | 0.056** [0.024] | 0.237*** [0.048] |
| With some primary education | -0.108 [0.069] | -0.576*** [0.164] | -0.152*** [0.039] | -0.416*** [0.073] |
| With some secondary education | -0.073 [0.058] | -0.340** [0.158] | -0.121*** [0.034] | -0.140** [0.069] |
| Aged under 30 | -0.089** [0.037] | 0.206* [0.107] | -0.266*** [0.077] | -0.136 [0.158] |
| Aged from 30 to 60 | -0.036 [0.038] | 0.271*** [0.101] | -0.178** [0.075] | -0.053 [0.153] |
| Being a male | 0.030 [0.022] | 0.069 [0.065] | -0.020 [0.028] | -0.050 [0.057] |
| Self-employed | -0.068 [0.042] | 0.438*** [0.099] | 0.021 [0.037] | 0.221*** [0.074] |
| Salaried employee | 0.011 [0.045] | 0.342*** [0.113] | -0.060* [0.033] | 0.130* [0.067] |
| Housewife | -0.121** [0.048] | 0.382*** [0.121] | -0.111** [0.043] | 0.134 [0.089] |
| Living in rural area | 0.015 [0.023] | -0.084 [0.068] | -0.020 [0.031] | -0.299*** [0.058] |
| Regional literacy level (IV) | | 0.867*** [0.172] | | 0.353*** [0.021] |
| Intercept | 0.234 [0.168] | -1.961*** [0.351] | -0.302 [0.392] | -7.327*** [0.839] |
| Underidentification test (LM statistic) | | 25.076 | | 218.448 |
| Weak identification test (F statistic) | | 25.401 | | 276.152 |
| N | 1,035 | 1,035 | 1,000 | 1,000 |
| R-squared | 0.1611 | | 0.3251 | |

Note: Figures in brackets are standard deviations. ***, **, and * denote coefficients significant at the 1%, 5%, and 10% statistical levels, respectively. The dependent variable is the financial literacy z-score. Province dummies are included in all estimates. The weighted sample is used in all estimations.

Source: Authors' estimates.

Effect of financial literacy on financial inclusion (IV)

| | Cambodia | | Viet Nam | |
|---|---------------------|----------------------|----------------------|----------------------|
| | (1) | (2) | (3) | (4) |
| | 2nd Stage | 1st Stage | 2nd Stage | 1st Stage |
| Financial literacy | 0.735*** [0.187] | | 0.370*** [0.065] | |
| Income | 0.060 [0.078] | 0.333*** [0.050] | 0.126** [0.054] | 0.237*** [0.048] |
| With some primary education | -0.042 [0.197] | -0.576*** [0.164] | -0.626*** [0.085] | -0.416*** [0.073] |
| With some secondary education | 0.030 [0.165] | -0.340** [0.158] | -0.486*** [0.075] | -0.140** [0.069] |
| Aged under 30 | -0.042 [0.106] | 0.206* [0.107] | -0.095 [0.172] | -0.136 [0.158] |
| Aged from 30 to 60 | 0.165 [0.109] | 0.271*** [0.101] | 0.023 [0.167] | -0.053 [0.153] |
| Being a male | 0.029 [0.062] | 0.069 [0.065] | 0.185*** [0.062] | -0.050 [0.057] |
| Self-employed | 0.011 [0.120] | 0.438*** [0.099] | -0.242*** [0.082] | 0.221*** [0.074] |
| Salaried employee | 0.106 [0.128] | 0.342*** [0.113] | -0.007 [0.073] | 0.130* [0.067] |
| Housewife | -0.329** [0.137] | 0.382*** [0.121] | -0.177* [0.096] | 0.134 [0.089] |
| Living in rural area | -0.092 [0.067] | -0.084 [0.068] | 0.071 [0.069] | -0.299*** [0.058] |
| Regional literacy level (IV) | | 0.867*** [0.172] | | 0.353*** [0.021] |
| Intercept | -0.319 [0.480] | -1.961*** [0.351] | -1.595* [0.870] | -7.327*** [0.839] |
| Underidentification test (LM statistic) | | 25.076 | | 218.448 |
| Weak identification test (F statistic) | | 25.401 | | 276.152 |
| N | 1,035 | 1,035 | 1,000 | 1,000 |
| | 0.2065 | | 0.2483 | |

Note: Figures in bracket are standard deviations. ***, **, and * denote coefficients significant at the 1%, 5%, and 10% statistical level, respectively. The dependent variable is the financial inclusion z-score. The weighted sample is used in all estimations.

Source: Authors' estimates.

6. Conclusions

- The overall scores of financial literacy in Cambodia (11.5) and Viet Nam (12.0) are at the low end of the range seen in the other 30 countries (relative low levels of per capita income), but more than consistent with income levels
- Higher levels of education are highly significant and positively correlated with financial literacy in both Cambodia and Viet Nam
- Both financial literacy and general education levels are positively and significantly related to savings activity, and financial literacy has an independent effect → Financial education policy can potentially raise the savings rate
- Both financial literacy and general education levels are positively and significantly related to the measure of financial inclusion → Financial education policy can potentially increase financial inclusion

Thank you For more information:

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