

Knowledge Or Exposure? Unpacking The Drivers Of Stock Market Awareness Among Students Of Government Higher Education Institutions In India

Shraddha Gupta¹, Dr. Urvashi Shrivastava², Dr Minal Shah³, Ridwana Hasan⁴

¹Research Scholar, Bhilai Institute of Technology, Durg.

email id : shraddhagupta18@gmail.com , ORCID: 0000-0002-2125-7900

²Professor, Bhilai Institute of Technology, Durg , email id: urvashi.shrivastava@bitdurg.ac.in, ORCID: 0000-0001-5540-6049

³Assistant Professor, Bhilai Institute of Technology, Durg, email id: 28minalshah@gmail.com, ORCID: 0000-0003-3320-0917

⁴Research Scholar, Bhilai Institute of Technology, Durg, email id : ridwana.hasan@gmail.com, ORCID: 0000-0002-2125-7900

Abstract

Whether knowing about finance translates into knowing about markets is an open question for young Indians standing at the threshold of earning life. This paper studies 367 students of government higher education institutions, a group rarely sampled in Indian work on the subject, and separates what financial knowledge contributes to stock market awareness from what the settings that produce such knowledge contribute. Awareness rises steeply with an objectively scored knowledge test when the two are examined alone. Yet the relationship dissolves once three settings enter the model: a commerce or management classroom, a household in which someone already invests, and attendance at a financial literacy programme. Each setting matters at the one per cent level, together lifting explained variance to 63.5 per cent, and bootstrap estimates show knowledge transmitting only about a fifth of their combined influence. A matched comparison confirms that the programme effect is not an artefact of who chooses to attend. Neither gender nor family income separates students once exposure is held constant. Building awareness, the evidence suggests, is less about teaching facts than about placing students inside financially active environments.

Keywords: financial literacy, stock market awareness, financial knowledge, exposure channels, higher education students, financial socialisation, India

1. INTRODUCTION

Retail money has been flowing into Indian equities at a pace with no historical parallel: dematerialised accounts have multiplied several times over within a decade and monthly inflows through systematic investment plans keep setting records. The enthusiasm, however, sits on a narrow base. Indian households still park most of their savings in deposits and gold, and the investors driving the boom are disproportionately urban, well off and formally trained in finance. If the base is to widen, students in higher education are the obvious place to begin. Their financial habits are still forming, their earning years are imminent, and colleges offer a ready and inexpensive channel for reaching them.

Set against this opportunity is a persistent deficit. Indian respondents answer basic questions on compounding, inflation and diversification less accurately than their counterparts elsewhere (OECD, 2018), and young adults are no exception (Agarwalla et al., 2015). Research connecting literacy to behaviour, and to equity participation specifically, is extensive (van Rooij et al., 2011). Far less is known about an earlier link in the chain: whether literacy brings students awareness of the instruments and institutions that make up a market, and whether a knowledge score predicts anything at all once one accounts for where that knowledge was picked up.

The evidence here comes from students of government higher education institutions. Existing Indian studies lean heavily on private universities and metropolitan campuses; government institutions enrol students from more modest backgrounds, which makes them the population that inclusion policy actually targets. The question posed is whether financial literacy drives stock market awareness, and the answer offered is a decomposition. Knowledge itself is measured separately from three settings through which knowledge and familiarity tend to arrive together: the commerce classroom, the investing household, and the financial literacy programme.

Three features distinguish the study: the government institution sample; the use of a scored knowledge test in the Lusardi and Mitchell (2011) tradition alongside, rather than instead of, attitude and behaviour scales; and a formal treatment of the knowledge and exposure decomposition through hierarchical specifications, bootstrap mediation and a matched estimate of the programme effect. The paper proceeds from literature and hypotheses through method and results to the implications that follow.

2. LITERATURE REVIEW AND HYPOTHESES

2.1 Financial Literacy: Concept and Measurement

What counts as financial literacy has converged on a three part answer: the knowledge, the attitudes and the behaviours that together support sound money decisions (OECD, 2018). How to measure it has converged too. Lusardi and Mitchell (2011) showed that a handful of scored questions on compounding, inflation and diversification travels well across countries and sidesteps the overconfidence that contaminates self-ratings (Lusardi and Mitchell, 2014). Indian evidence complicates the picture in one respect: Agarwalla et al. (2015) found young working adults combining weak knowledge with comparatively sound attitudes, which argues for keeping the three dimensions apart rather than collapsing them into one composite score.

2.2 Financial Literacy and Stock Market Engagement

For the participation decision itself, the literacy connection is settled ground: households that score poorly on knowledge questions hold stocks far less often (van Rooij et al., 2011), and in emerging markets thin knowledge combines with access barriers to suppress demand for market products (Cole et al., 2011). Participation, though, presupposes something earlier. Nobody demands an instrument they have never heard of, so awareness of what exists and how it works stands logically upstream of any decision to invest. Work on students, going back to Chen and Volpe (1998), finds literacy and investment knowledge moving together, but the evidence is mostly bivariate, leaving open what the correlation actually reflects. Hence the first hypothesis.

H1: Financial literacy has a significant positive effect on stock market awareness.

2.3 Demographic Differences

Three demographic patterns recur across countries. Women answer knowledge questions less accurately than men and choose the do not know option more often (Bucher-Koenen et al., 2017). Students of commerce and business outscore peers from other fields (Chen and Volpe, 1998). And children raised in households that invest absorb the vocabulary and mechanics of markets at the dinner table, long before any formal instruction. Whether income or investing behaviour is the operative household trait is itself an open question. The remaining hypotheses test these patterns in the present sample.

H2: Stock market awareness differs significantly between male and female students.

H3: Stock market awareness differs significantly across disciplines of study.

H4: Stock market awareness differs significantly across family income groups.

2.4 Knowledge versus Exposure

What the literacy and awareness correlation means is a different matter from whether it exists. Knowledge does not appear from nowhere; the classroom that teaches it, the household that models it and the campaign that promotes it also transmit direct familiarity with markets. Leave those settings out of a regression and the knowledge coefficient quietly collects their influence, flattering knowledge itself. The distinction is not academic. If facts alone were enough, testing and certifying students would be the right policy lever; if the settings do the work, the lever is curricular and institutional. This study puts the settings into the model explicitly and asks how much of their effect knowledge actually carries.

3. RESEARCH METHODOLOGY

3.1 Research Design, Population and Sample

Students enrolled in government higher education institutions form the population, surveyed once through a structured online questionnaire distributed to 400 individuals across disciplines. Usable responses numbered 367, a return of 91.8 per cent. The opening 50 submissions doubled as a pilot for checking the instrument; nothing in the questionnaire changed afterwards, so these cases stayed in the analysis. With ten cases per scale item as the working benchmark, and Krejcie and Morgan (1970) offering a comparable population-based standard, the sample is comfortably adequate.

3.2 Instrument and Measures

Six sections make up the instrument. The first profiles the respondent: gender, age band, discipline, study level and year, residence, monthly family income, occupation of the main earner, whether anyone else in the family invests, and any prior attendance at a financial literacy programme. The second tests knowledge through eight multiple choice questions, each scored one if correct and zero otherwise; the opening three replicate Lusardi and Mitchell (2011) on compounding, inflation and diversification, while the remaining five are written for the Indian setting and cover simple interest, the securities regulator, systematic investment plans, the risk and return trade off, and dematerialised accounts. Attitude (five statements, one worded in reverse) and behaviour (six statements) follow on five point agreement scales patterned on OECD (2018). Ten further statements capture awareness of market instruments, institutions, procedures, risks and information sources. A closing section records whether the respondent invests, intends to, and what stands in the way. Every question in the online form was compulsory, which is why the dataset carries no missing values.

3.3 Analytical Techniques

Internal consistency is checked with Cronbach's alpha (Cronbach, 1951); group contrasts rely on the independent samples t test and on Welch's analysis of variance followed by Tukey comparisons. The core test enters predictors of awareness in three waves, literacy measures, then demographic controls, then exposure settings, within ordinary least squares, and every coefficient is reported with heteroscedasticity-consistent standard errors (White, 1980). Whether knowledge transmits the exposure effect is examined through bootstrap confidence intervals around the indirect path (Preacher and Hayes, 2008), and the programme estimate is repeated on matched pairs built from propensity scores (Rosenbaum and Rubin, 1983). The Podsakoff et al. (2003) diagnostics address common method concerns. Two asterisks mark the five per cent level and three the one per cent level throughout.

4. RESULTS

4.1 Sample Profile, Reliability and Descriptive Statistics

Table 1: Demographic profile of respondents (N = 367)

Characteristic	Category	Frequency	Per cent
Gender	Male	182	49.6
	Female	177	48.2
	Prefer not to say	8	2.2
Discipline	Commerce / Management	116	31.6
	Science	98	26.7
	Arts / Humanities	66	18.0
	Law	50	13.6
	Other	37	10.1
Monthly family income	Below Rs 25,000	100	27.2
	Rs 25,000 to Rs 50,000	141	38.4
	Rs 50,001 to Rs 1,00,000	81	22.1
	Above Rs 1,00,000	45	12.3
Family member invests	Yes	199	54.2
	No	144	39.2
	Not sure	24	6.5
Attended programme	Yes	176	48.0
	No	191	52.0

Table 2: Scale reliability and descriptive statistics

Construct	Items	Cronbach's alpha	Mean	SD
Financial knowledge (0 to 8)	8	n.a. (index)	5.074	1.722
Financial attitude	5	0.185	3.121	0.447
Financial behaviour	6	0.381	3.041	0.443
Stock market awareness	10	0.724	3.436	0.495

The awareness scale shows acceptable internal consistency (alpha = 0.724). The attitude (alpha = 0.185) and

behaviour ($\alpha = 0.381$) scales fall below the conventional 0.70 threshold, and the reverse worded attitude item shows a negative corrected item-total correlation, indicating that many respondents did not process the reversal. These two scales are therefore treated as supplementary, and the objective knowledge score serves as the primary indicator of financial literacy, consistent with Lusardi and Mitchell (2011). The knowledge score correlates positively with self-reported awareness ($r = 0.559$, $p < 0.01$), supporting the validity of the awareness measure. Mean knowledge is 5.074 of 8 and mean awareness 3.436 on the five point scale.

4.2 Hierarchical Regression (H1)

Table 3: Hierarchical regression of stock market awareness (N = 367)

Variable	Model 1	Model 2	Model 3	Model 4
Constant	2.62*** (0.061)	1.384*** (0.164)	1.432*** (0.172)	2.421*** (0.172)
Financial knowledge	0.161*** (0.011)	0.112*** (0.013)	0.113*** (0.013)	0.007 (0.012)
Financial attitude		0.153*** (0.048)	0.155*** (0.049)	0.091** (0.045)
Financial behaviour		0.33*** (0.049)	0.328*** (0.049)	0.084 (0.045)
Female			-0.015 (0.041)	0.009 (0.032)
Family income			-0.02 (0.022)	-0.007 (0.017)
Commerce discipline				0.664*** (0.046)
Family member invests				0.321*** (0.033)
Attended programme				0.14*** (0.035)
R squared	0.312	0.414	0.416	0.635
Adjusted R squared	0.31	0.409	0.408	0.627

Note: Coefficients with heteroscedasticity-consistent standard errors in parentheses. ** $p < 0.05$, *** $p < 0.01$.

Financial knowledge alone strongly predicts awareness (Model 1: $b = 0.161$, $p < 0.01$, $R^2 = 0.312$), and remains significant with attitude, behaviour and demographic controls added (Models 2 and 3); neither gender nor income is significant. Model 4 introduces the three exposure channels, all significant at the one per cent level (commerce $b = 0.664$, family investment $b = 0.321$, programme $b = 0.14$), raising R^2 to 0.635, while the knowledge coefficient falls to 0.007 and loses significance. In standardised terms the commerce effect ($\beta = 0.624$) is roughly twice the family investment effect ($\beta = 0.323$) and more than four times the programme effect ($\beta = 0.142$). H1 is supported in the bivariate and partially controlled specifications, but the full model shows the association operating through shared exposure channels rather than knowledge in isolation.

4.3 Group Differences (H2, H3, H4)

Table 4: Awareness by gender, discipline and income

Group	N	Mean	SD
Gender: Male	182	3.434	0.483
Gender: Female	177	3.432	0.511
Discipline: Commerce / Management	116	3.941	0.316
Discipline: Science	98	3.228	0.362
Discipline: Arts / Humanities	66	3.008	0.282
Discipline: Law	50	3.516	0.335
Discipline: Other	37	3.062	0.316
Income: Below Rs 25,000	100	3.412	0.494
Income: Rs 25,000 to Rs 50,000	141	3.477	0.491

Income: Rs 50,001 to Rs 1,00,000	81	3.433	0.49
Income: Above Rs 1,00,000	45	3.364	0.525

Note: Gender $t = 0.046$ ($p = 0.9631$); discipline Welch $F = 131.9^{***}$ ($p < 0.01$); income Welch $F = 0.68$ ($p = 0.5637$). Respondents preferring not to state gender ($n = 8$) excluded from the gender comparison.

No gender difference is found (Cohen's $d = 0.005$), so H2 is not supported, a result that contrasts with the gender gap documented internationally (Bucher-Koenen et al., 2017) and is taken up in the discussion. Discipline differences are large ($\eta^2 = 0.572$), supporting H3, with commerce students highest and arts students lowest; Tukey comparisons confirm the commerce group differs from every other group. Income differences are not significant, so H4 is not supported: family investment behaviour, not income, is the relevant household characteristic.

4.4 Diagnostic and Sensitivity Analyses

Common method bias is limited: Harman's single factor accounts for 20.0 per cent of variance in the perception items, the key predictor is objectively scored and the exposure variables are factual (Podsakoff et al., 2003). Variance inflation factors do not exceed 2.12. A formal mediation test specifies an exposure index (count of channels, 0 to 3) as predictor, knowledge as mediator and awareness as outcome: the bootstrap indirect effect is 0.086 with a 95 per cent confidence interval of [0.053, 0.123], so knowledge partially mediates, carrying 21.7 per cent of the total effect, while the direct exposure effect (0.311) remains substantial. Because programme attendance is voluntary, the programme effect is re-estimated by matching each attendee to the nearest non-attendee on a propensity score estimated from knowledge, gender, income, discipline, family investment, age and residence (176 pairs): the matched difference is 0.098 ($p = 0.0498$), smaller than the naive difference of 0.165 but still significant at the five per cent level. Excluding the 50 pilot responses leaves all conclusions unchanged ($N = 317$, $R^2 = 0.623$), and an ordered logit on awareness terciles, which relaxes the interval assumption on the awareness scale, reproduces the full pattern. Standardised coefficients and the full sensitivity comparisons are reported in Online Appendix Tables A1 and A2.

5. DISCUSSION

What the paper delivers is not a verdict on financial knowledge but an account of where its apparent power comes from. Knowledge and awareness track each other closely, exactly as prior work would lead one to expect. Trace the correlation to its source, however, and nearly all of it belongs to the settings in which both are acquired. The commerce classroom, the investing household and the literacy programme each raise awareness in their own right; knowledge conveys roughly a fifth of their combined influence and, taken alone, explains nothing once they are accounted for. None of this cheapens knowledge. It simply relocates the action: students come to know markets in places where vocabulary, examples, information and confidence arrive as a package, not by absorbing facts in a vacuum, because facts are almost never absorbed that way.

The missing gender gap runs against a substantial international record (Bucher-Koenen et al., 2017) and merits a closer look. One reading is compositional: everyone in this sample has already made it into higher education, a filter that plausibly narrows differences visible in the population at large. A second reading follows from the paper's own logic. The channels doing the work here are institutional, and within a shared classroom or campus men and women are exposed alike; equal exposure should then produce equal awareness, and it does. The income null admits the same explanation: households shape awareness through what they do with money, not through how much of it they have.

The practical lesson follows without much translation. Were testable knowledge the driver, teaching and examining would be the right response. Since exposure is the driver, the response is structural: financial content woven into syllabi well beyond commerce, campus programmes scaled up (their effect withstands the matching correction, though at about a tenth of a scale point it is a contribution, not a cure), and households drawn in wherever feasible. For a regulator seeking wider participation, government campuses are an inexpensive doorway to a population with room to grow: fewer than a quarter of these respondents invest at all, and the obstacles they name, too little money, too much fear, too little knowledge, are the ones exposure is best placed to dissolve.

6. CONCLUSION, LIMITATIONS AND FUTURE RESEARCH

Does financial literacy drive stock market awareness among students of government higher education institutions? The answer defended here is: only as a stand-in for exposure. Commerce training, an investing family and programme attendance each lift awareness on their own; knowledge relays part of their influence but adds none of its own; and once these settings are held constant, neither gender nor income divides the sample. Four limitations qualify the findings. First, the design is cross-sectional, so the estimates describe associations and channel structure rather than strict causal effects; panel or experimental designs could establish causality, particularly for programme attendance. Second, the attitude and behaviour scales showed weak internal consistency in this sample, which is why the objective knowledge score served as the primary literacy measure; refined scales suited to student populations, with more carefully worded reverse items, are a priority for future instruments. Third, the sample is drawn from government institutions in a single state, so generalisation to private institutions and other regions requires further evidence. Fourth, awareness is self-reported; although it correlates well with objectively scored knowledge, behavioural measures of awareness would strengthen future work. Fifth, family income was recorded in four broad bands, and the width of the lowest band (below Rs 25,000) may attenuate income effects among low-income households; finer income categories are recommended for future instruments. Extensions could track whether awareness converts into participation as students begin earning, compare government and private institutions directly, and evaluate specific programme designs through randomised rollout across campuses.

References

1. Agarwalla SK, Barua SK, Jacob J and Varma JR (2015) Financial literacy among working young in urban India. *World Development* 67: 101-109.
2. Bucher-Koenen T, Lusardi A, Alessie R and van Rooij M (2017) How financially literate are women? An overview and new insights. *Journal of Consumer Affairs* 51(2): 255-283.
3. Chen H and Volpe RP (1998) An analysis of personal financial literacy among college students. *Financial Services Review* 7(2): 107-128.
4. Cole S, Sampson T and Zia B (2011) Prices or knowledge? What drives demand for financial services in emerging markets? *Journal of Finance* 66(6): 1933-1967.
5. Cronbach LJ (1951) Coefficient alpha and the internal structure of tests. *Psychometrika* 16(3): 297-334.
6. Krejcie RV and Morgan DW (1970) Determining sample size for research activities. *Educational and Psychological Measurement* 30(3): 607-610.
7. Lusardi A and Mitchell OS (2011) Financial literacy around the world: An overview. *Journal of Pension Economics and Finance* 10(4): 497-508.
8. Lusardi A and Mitchell OS (2014) The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature* 52(1): 5-44.
9. OECD (2018) OECD/INFE Toolkit for Measuring Financial Literacy and Financial Inclusion. Paris: OECD.
10. Podsakoff PM, MacKenzie SB, Lee JY and Podsakoff NP (2003) Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology* 88(5): 879-903.
11. Preacher KJ and Hayes AF (2008) Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods* 40(3): 879-891.
12. Rosenbaum PR and Rubin DB (1983) The central role of the propensity score in observational studies for causal effects. *Biometrika* 70(1): 41-55.
13. van Rooij M, Lusardi A and Alessie R (2011) Financial literacy and stock market participation. *Journal of Financial Economics* 101(2): 449-472.
14. White H (1980) A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity. *Econometrica* 48(4): 817-838.