

Original Article

Financial Literacy, Exposure, and Decision-Making: Institutional Differences in Behavioural Biases Among Indian Adolescents

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Abstract - As Indian adolescents are increasingly engaged with digital financial systems, concerns have emerged regarding unequal access to financial literacy education and its implications on decision-making behavior. This study examines whether differences in financial literacy exposure across government, private, and low-cost private schools are related to variation in behavioral decision-making among Indian adolescents. Drawing on a behavioral economics framework, this study looks at financial literacy within broader institutional and educational contexts. Using a cross-sectional comparative design, primary data were collected from 120 students across three types of schools through a structured questionnaire and choice-based behavioral tasks assessing present bias, overconfidence, and risk preference. Financial literacy exposure was measured using a composite index capturing curricular content, pedagogical approach, and opportunities for practical financial engagement. The results show significant differences in financial literacy exposure across school types, with higher exposure associated with lower present bias and overconfidence. The findings of the study will give school administrators and policy makers valuable information by demonstrating how institutional differences in schooling significantly shape the behavioral foundations of financial decision-making and stress the importance of application-oriented as well as behaviorally informed financial literacy programmes in Indian schools.

Keywords - Adolescent decision-making, Behavioral economics, Financial literacy, Present bias, Risk preference.

1. Introduction

The rapid expansion of digital financial systems in India has increased adolescents' exposure to financial decision-making at an unprecedented pace. With the widespread adoption of digital payments, online banking, and consumer credit platforms, young individuals are now required to engage with financial choices well before entering adulthood. However, increased access to financial tools has not been accompanied by uniform access to structured financial education, raising concerns about adolescents' preparedness to make informed and consistent economic decisions (Lusardi & Mitchell, 2014).

Research on financial literacy demonstrates that children's early exposure to financial concepts is associated with improved long-term economic outcomes as they learn effective money-saving techniques, debt management abilities, and financial stability maintenance at the right time (Lusardi, 2019). According to behavioral economics, financial knowledge by itself does not explain how people behave with their money. People depend on cognitive shortcuts, while their decisions are affected by three specific biases that include present bias, overconfidence, and distorted

risk perception when they face uncertain situations (Thaler, 2016). The fundamental development phase of adolescence enables these behavioral patterns to create their permanent structure, making it a particularly important stage for financial education and behavioral intervention (Steinberg, 2010).

Despite broad agreement on the importance of financial education, empirical findings regarding its effectiveness remain mixed. While some studies report that formal financial education improves financial knowledge and downstream financial behavior (Fernandes et al., 2014), others demonstrate that educational methods produce brief learning advantages that disappear in no time when teachers use complex theoretical approaches instead of hands-on and practical educational methods (Willis, 2011). These mixed results suggest that differences in instructional design and institutional context may play a significant role in shaping outcomes.

Research conducted in India has concentrated on studying adult populations and general literacy rates, but these studies do not explain how educational institutions affect adolescent decision-making behavior in the future (Klapper et al., 2015).



However, little empirical evidence in the Indian context examines how institutional differences across school types influence adolescent behavioral biases rather than merely financial knowledge.

This study examines how differences in financial literacy exposure across government, private, and low-cost private schools are associated with behavioral decision-making among Indian students in Grades 11 and 12. Rather than treating financial literacy as a single cognitive skill, the study conceptualizes it as an institutional exposure shaped by curricular content, teaching methods, and opportunities for practical engagement.

By adopting a comparative framework and focusing on behavioral outcomes, this research contributes to both the financial literacy and behavioral economics literature while offering policy-relevant insights for India's education system.

Government, private, and low-cost schools offer different kinds of learning experiences when it comes to finances. What students learn inside - through lessons, teaching styles, and hands-on work - affects their choices later. Instead of just focusing on knowledge, the study looks at real actions like making rash decisions now or feeling overconfident about future outcomes. Because institutions mold habits in distinct ways, understanding these patterns matters for both classroom practice and broader national goals. Though rooted in India's context, the findings could extend beyond classrooms there.

2. Literature Review

2.1. Financial Literacy and Adolescent Development

Knowing about money-related subjects plays a big role in staying financially steady over time. Back in 2014, researchers like Lusardi and Mitchell showed how it affects entire economies. By 2019, Lusardi stressed that kids need clear teaching on finances right from the start. Lately, though, scientists keep coming back to teens - they are not kids anymore, yet still shaping future habits. After 2020, studies by Kaiser and Menkhoff showed financial lessons worked best when people actually tried things out. Later work from Kaiser's team in 2022 backed that up - doing, not just knowing, made a difference. So it is not about how much info you give, but how you make learners engage with it.

Despite efforts like OECD's PISA Financial Literacy assessments from 2020 and 2022, young people in many regions still face uneven chances when it comes to managing money. School systems appear to play a role; those with different structures or resources often influence how ready students are financially. Context matters, but education frameworks also leave marks on student outcomes.

Even as global studies pile up proof, few studies in India look at teens. Most attention goes to grown-ups, like those reported by Klapper and team back in 2015.

2.2. Behavioral Economics and Adolescent Decision Biases

It turns out knowing finance does not always mean making smart choices. People often take mental shortcuts instead of thinking carefully, which brings mistakes like wanting money now, feeling too sure about guesses, or worrying about risks that are not real (Thaler, 2016).

During teenage years, small errors in judgment grow more common. Not long ago, Steinberg proposed a two-part explanation: emotions rise faster than decision-making tools can catch up, leaving room for hasty decisions. In recent years, brain scans back this idea - work by Casey and others shows youth struggle to balance feeling and reason. Young minds process risk differently than adults do; timing matters here. Fischhoff noted such patterns too, finding that youth weigh odds less carefully than older groups. Back in 2022, research showed how clear feedback helps people make better choices when guidance is built into the process. That idea now has stronger proof behind it.

Still, there is little real-world evidence showing how much time spent learning money skills in school connects to specific financial habits in teens - especially in developing countries.

2.3. Digital Financial Literacy and Fintech Exposure

Thanks to India's fast-moving shift toward digital money, young people now interact with financial apps in new ways. Driven by the spread of UPI and stronger habits formed during the pandemic, these changes reshaped how youth engage with money services (Reserve Bank of India, 2021; World Bank, 2022).

Looking at newer research, it becomes clear that basic money knowledge is not the same as knowing how digital money systems work (Lyons & Kass-Hanna, 2021; Morgan et al., 2021). What matters now involves grasping things like web-based payments, threats to online safety, digital lending platforms, and tools built through financial technology.

Some research in developing countries shows digital tools can raise risks of quick decisions and bad debt if people lack basic knowledge (Setiawan & Phan, 2022). Still, little attention is paid to how schools inside these areas shape young minds facing such pressures.

2.4. Socio-Economic and Family Influences

Learning about finance helps, yet how kids grow up around money matters just as much. According to Gudmunson and Danes (2020), young people form views on money through what they see parents do - not just talking but acting within the home's budget world.

Recent research by Sohn and others in 2021 shows that teens from wealthier families often feel more certain about managing money. Work led by Chowa and Masa in 2020

backs this up, pointing out that these young people tend to hear more about finances at home. Saving habits, expectations for men and women, along with duties passed across generations - these cultural forces - influence how bold they act and how long they wait before deciding.

It looks like learning about money at school could either ease or worsen existing social and economic gaps.

2.5. Institutional Context and Educational Inequality

Looking at schools in India shows clear gaps between public and private ones when it comes to funding, teaching methods, and extra activities (Kingdon, 2020; ASER, 2022).

Studies show that learning spaces using simulations plus hands-on projects boost accuracy while lowering excessive confidence (Alan & Ertac, 2022). This setup could shape outcomes beyond grades - affecting how people manage their actions.

Still, there's little research on how schools in India shape kids' money habits compared to their behavior choices. Few studies look at teenage financial knowledge under different learning setups.

2.6. Research Gap and Positioning of the Study

Even though past studies show that money skills help people stay financially stable, clear gaps remain. A lot of today's research zeroes in on grown-ups or checks knowledge levels instead of the real choices people make. When teens are part of the picture, experiments tend to test how much they know about finances, ignoring how learning settings affect habits like delaying paychecks or being too sure of themselves. Still, fresh studies often overlook how digital access shapes outcomes in schools across developing nations. Though some work touches on fintech use, little connects it directly to classroom learning environments. Looking at India specifically, most studies fixate on average reading skills or individual money management data, skipping deeper looks at school structures. That means contrasts between government-run, private, or community-led institutions stay largely ignored. Because of these differences, scientists know very little about how changes in school lessons, teaching styles, or hands-on money experiences in public, private, or affordable schools shape young people's choices. This research looks at schools differently - by comparing their structures - and pays attention only to actions, not just what students learn. Doing so fills an important missing piece in both money understanding studies and how choices are made in real-life situations. At the same time, it places teenage decisions about finances inside larger educational and organizational settings.

3. Materials and Methods

The participants in this study were Grade 11 and 12 students enrolled in government, private, and low-cost private

schools in India. The study involved 120 adolescents who were aged between 16 and 18 years old, with equal representation across the three school types. The choice of schools to be used in the study was made with regard to the ease of access to the schools, and prior permission for the study was obtained from the schools' administrations.

The study employed a cross-sectional, mixed-method comparative design. School type was used as a between-subjects independent variable, while exposure to financial literacy was treated as a continuous predictor variable. Behavioral decision-making outcomes, including present bias, risk preference, and overconfidence, were the primary dependent variables. Grade level and self-reported Socio-Economic Status (SES) were included as control variables to account for developmental and household-level influences on financial behavior. SES was measured using self-reported parental occupation and perceived household economic status.

Financial literacy exposure was measured using a composite index comprising three components: curricular inculcation of financial concepts, pedagogical approach (e.g., theoretical instruction versus applied learning), and opportunities for practical financial engagement, such as simulations, projects, or real-world examples. Items were self-reported and combined to create an overall exposure score.

Behavioral decision-making was studied using a set of hypothetical, choice-based tasks that were adapted from standard behavioral economics paradigms. Present bias was assessed using intertemporal choice tasks in which participants selected between smaller immediate rewards and larger delayed rewards. Risk preference was measured through probabilistic choice tasks requiring participants to choose between certain outcomes and uncertain outcomes with varying probabilities. Overconfidence was measured by comparing participants' self-assessed performance on the behavioral tasks with their actual task performance, allowing for the estimation of overestimation or underestimation of ability.

All materials were administered in English and were reviewed for clarity and age appropriateness prior to implementation. The researchers conducted their data collection activities throughout typical school days inside a classroom environment. Briefing of the participants was done at the start on the general purpose of the study, and they were informed that there were no right or wrong answers. They then completed a short demographic questionnaire, followed by the financial literacy exposure items and behavioral decision-making tasks. Finally, participants provided self-assessments of their performance. The entire process took 25 to 30 minutes. The study complied with ethical guidelines for studies involving human participants. Participation was completely voluntary. To guarantee the anonymity of the respondents, the questionnaires were completed with confidentiality. All tasks

involved hypothetical scenarios only, and no real financial incentives were used.

4. Results

Differences in financial literacy exposure across school types were assessed by using a one-way Analysis Of Variance (ANOVA). ANOVA was appropriate given the categorical independent variable (school type) and continuous outcome variables. Multiple regression was used to assess predictive relationships while controlling for covariates.

The results demonstrated a significant main effect of school type on financial literacy exposure, $F(2, 117) = 14.85$, $p < .001$, $\eta^2 = .20$, indicating a large institutional effect. Students from private schools showed the highest levels of financial literacy exposure ($M = 8.4$, $SD = 1.2$), followed by low-cost private schools ($M = 7.1$, $SD = 1.3$) and then lastly government schools ($M = 6.2$, $SD = 1.4$).

The study of the relation between financial literacy exposure and present bias was carried out using Pearson's correlation analysis. A significant negative correlation was observed, $r(118) = -.34$, $p = .001$, showing that higher levels of financial literacy exposure were associated with lower present bias. Differences in overconfidence across school types were investigated by using a one-way ANOVA. The analysis revealed a significant main effect of school type on overconfidence scores, $F(2, 117) = 9.62$, $p < .001$, $\eta^2 = .14$, suggesting a substantial institutional effect on overconfidence levels. Overconfidence scores were highest among students from government schools ($M = 2.1$, $SD = 1.3$), followed by students from low-cost private schools ($M = 1.4$, $SD = 1.1$) and private schools ($M = 0.7$, $SD = 0.9$).

In order to analyze whether financial literacy exposure predicted present bias after controlling for grade level and self-reported socio-economic background, a multiple regression analysis was conducted. Financial literacy exposure stayed a significant predictor of present bias, $\beta = -.27$, $t(116) = -2.92$, $p = .004$. The model accounted for approximately 18% of the variance in present bias ($R^2 = .18$), indicating moderate explanatory power.

5. Discussion

The study examined whether differences in financial literacy exposure across government, private, and low-cost private schools are associated with variation in behavioral decision-making among Indian adolescents. The findings provide consistent evidence that institutional context plays a meaningful role in shaping both access to financial education and behavioral outcomes during late adolescence.

First, the research findings indicate significant differences in financial literacy exposure across school types. Students who attend private schools reported the highest

levels of exposure, followed by students from low-cost private schools and government schools. The observed gradient follows previous studies, which showed that Indian students face different levels of access to educational resources and enrichment activities depending on their institutional environment (Klapper et al., 2015). These results support the argument that financial literacy is influenced not only by individual characteristics but also by the educational environments in which students are embedded (Lusardi, 2019).

Second, higher levels of financial literacy exposure were associated with lower present bias. Adolescents with greater exposure demonstrated more consistent intertemporal decision-making, indicating a greater capacity to weigh long-term benefits against short-term rewards. This finding is consistent with behavioral economics frameworks that emphasize the role of learning environments and repeated exposure in shaping time preferences and decision heuristics (Thaler, 2016). Importantly, this shows that financial literacy exposure continues to affect present bias behavior in students after researchers excluded their academic year and family income from the analysis.

The third finding showed that students from different school types demonstrated different levels of overconfidence. Government school students showed the most overconfidence, while private school students showed the least. Prior research suggests that students who take part in applied learning activities with structured feedback systems have self-assessment competencies that result in decreased overconfidence (Fernandes et al., 2014). The present findings confirm this interpretation and show that greater exposure to practical financial decision-making experiences enhances adolescents' ability to mindfully assess their own competence.

Taken together, these results show that financial literacy exposure influences not only what adolescents know about financial concepts, but also how they make decisions under uncertainty. By focusing on behavioral outcomes rather than knowledge measures alone, this study extends existing financial literacy studies and supports calls for behaviorally informed approaches to financial education (Lusardi & Mitchell, 2014). Although the strongest effects were observed for present bias and overconfidence, patterns in risk preference followed a similar directional trend across school types. This suggests that institutional learning environments may shape multiple dimensions of financial decision-making.

6. Policy and Curriculum Implications

What this study discovered matters when shaping school policies or curriculum in India. Differences found between government schools, private ones, and low-cost private alternatives show how learning about money connects to real choices people make later. Since digital banking grows faster

every year across the country - driven by plans like Digital India and the rise of UPI payments - teaching money skills must reflect how minds actually work.

Right now, the data shows something clear. The national education policy from 2020 pushes skill-focused methods. Applied learning links to hands-on money experience. This kind of activity ties to better control over impulses. People who engage more tend to make fewer mistakes. Learning sticks better when it feels like trying things out. Schools could build better judgment just by adding practical money lessons. Not facts alone, but exercises that mimic choices. Real examples help sharpen how students see their own limits. Simulated scenarios or practice decisions beat pure information. Case work plus role-playing fit naturally into high school needs. Even basic task design beats passive reading. Experience counts more than knowledge once learned.

Still, efforts by the Reserve Bank of India, along with those from the Securities and Exchange Board of India, like centres teaching money management and workshops for investors, have boosted knowledge in the population. Yet these actions usually run apart from regular school lessons. Shifting them into official learning plans, particularly in public schools and affordable private schools, could make access more uniform across settings.

Since patterns show clear differences between school types, extra teaching efforts in less well-off schools might help reduce differences in behavior, ones that often last into grown-up life. Because of this, those making education rules could support uniform money management tests for high school students, while also offering staff development aimed at practical financial teaching methods. One way to look at it is matching how people learn in school with countrywide plans to boost access to finance, which could make India's teaching on money matters more reliable over time.

Future curriculum reforms may benefit from longitudinal evaluation frameworks to assess whether early institutional exposure produces sustained behavioral improvements into early adulthood.

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7. Conclusion

This study shows how differences in school-based Financial literacy exposure is associated with variation in behavioral decision-making among Indian adolescents. Higher levels of exposure were linked to lower present bias and lower overconfidence, suggesting that institutional learning environments play an important role in shaping behavioral tendencies in the case of long-term economic outcomes.

Using a comparative framework across government, private, and low-cost private schools, the study highlights structural disparities within India's financial education system. These findings align with broader research demonstrating that unequal educational environments can contribute to behavioral and economic inequalities over time (Klapper et al., 2015; Lusardi, 2019).

Above all, the outcomes highlight the value of programmes that teach financial understanding in a way that prioritizes application-oriented learning and behavioral awareness rather than focusing on theoretical understanding alone. Integration of behavioral insights into all school-based financial literacy initiatives, particularly within underserved institutions, may strengthen the effectiveness of financial education and improve decision-making outcomes among adolescents.

Overall, the findings suggest that both institutional context and delivery mechanisms of financial education have an impact on adolescent decision-making. Taking steps to address disparities in financial literacy exposure during schooling may therefore represent a critical step toward promoting more equitable economic outcomes in the future.

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