

Financial Literacy and Investment Behaviour: The Mediating Role of Risk Tolerance and the Moderating Effect of Gender A Systematic Review and Conceptual Framework

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Abstract

Despite the centrality of financial literacy in policy and practice, the mechanism through which it shapes investment behaviour remains contested. Drawing on a systematic review of peer-reviewed empirical studies published between 2000 and 2024, this paper constructs and defends a conceptual model in which risk tolerance mediates the financial literacy–investment behaviour relationship, while gender moderates both the direct and indirect pathways. Grounded in behavioural finance theory, prospect theory, and the financial capability framework, the review reconciles divergent findings across developed and emerging economies and exposes critical research gaps: the absence of integrated mediated-moderation models, the underrepresentation of South Asian and Sub-Saharan African contexts, and the neglect of digital financial literacy as a distinct construct. A five-proposition agenda is offered to guide future empirical inquiry. The paper contributes theoretically by synthesising fragmented evidence into a unified framework, and practically by informing gender-sensitive financial education design and public policy.

Keywords: Financial Literacy; Investment Behaviour; Risk Tolerance; Gender Differences; Behavioural Finance; Emerging Economies; Mediation; Moderation; Systematic Review

1. INTRODUCTION

The global financial landscape has undergone a profound transformation over the past three decades. Deregulation, the proliferation of complex financial instruments, the rise of digital platforms, and the gradual retreat of defined-benefit pension systems have collectively transferred an unprecedented degree of financial responsibility onto ordinary individuals (Lusardi & Mitchell, 2014). In this environment, the capacity to understand, evaluate, and act upon financial information—commonly referred to as financial literacy—has transitioned from a desirable attribute to a near-essential life skill.

Financial literacy is broadly understood as the combination of awareness, knowledge, skill, attitude, and behaviour necessary for sound financial decision-making and, ultimately, individual financial well-being (OECD, 2020). Its relevance to investment behaviour, in particular, has attracted substantial scholarly attention since the early 2000s. The foundational premise is intuitive: individuals who understand how markets work, what diversification means, and how compound returns accumulate should, *ceteris paribus*, make better investment decisions than those who do not.

Empirical research broadly supports this premise. High financial literacy is positively associated with stock market participation (van Rooij et al., 2011), retirement savings adequacy (Lusardi & Mitchell, 2014), portfolio diversification (Guiso & Jappelli, 2008), and avoidance of high-cost credit (Agarwal et

al., 2009). Yet a persistent and troubling body of evidence reveals that the relationship is far from mechanical. Financially knowledgeable individuals frequently exhibit suboptimal or demonstrably irrational investment behaviour—over-trading, home-bias, disposition effects, and insufficient diversification—suggesting that knowledge alone is a necessary but insufficient condition for financial action (Aren & Zengin, 2016; Kahneman, 2011).

Two classes of explanatory variables have emerged as particularly important in bridging this gap between financial knowledge and investment action. The first is psychological: risk tolerance—defined as the degree to which an individual willingly accepts financial uncertainty in exchange for potential return—functions as a key psychological gateway through which financial literacy must pass before it translates into investment behaviour (Grable, 2000; Nguyen et al., 2019). The second is demographic: gender systematically shapes both the accumulation of financial knowledge and the calibration of risk tolerance, producing distinctive investment patterns across men and women (Barber & Odean, 2001; Bucher-Koenen et al., 2017).

Despite the growing recognition of these dynamics, the literature remains fragmented. Studies that examine financial literacy and investment behaviour seldom incorporate risk tolerance as a formal mediator; those that study gender differences rarely frame their analysis within a mediation model; and most of the extant evidence originates from North American and European contexts, leaving emerging economies—where financial markets are developing rapidly and literacy levels vary dramatically—substantially underrepresented.

This paper addresses these gaps through a systematic review of the literature. We pursue four objectives: (1) to map and synthesise the evidence on the financial literacy–investment behaviour relationship; (2) to evaluate the theoretical and empirical case for risk tolerance as a mediator of this relationship; (3) to assess how gender moderates both the direct and indirect pathways; and (4) to propose a unified conceptual framework and a structured agenda for future empirical research.

The remainder of the paper is organised as follows. Section 2 establishes the theoretical grounding. Section 3 presents the systematic literature review. Section 4 introduces the conceptual framework and research propositions. Section 5 discusses research gaps and future directions. Section 6 outlines practical and theoretical implications. Section 7 concludes.

2. THEORETICAL BACKGROUND

The present framework is informed by three complementary theoretical traditions: behavioural finance theory, prospect theory, and the financial capability framework. Each tradition addresses a distinct facet of the financial literacy–risk tolerance–investment behaviour nexus.

2.1 Behavioural Finance Theory

Orthodox financial economics posits that individuals are rational agents who maximise expected utility on the basis of complete information (Fama, 1970). Behavioural finance, pioneered by Kahneman and Tversky (1979) and subsequently elaborated by Thaler (1980), Shiller (2000), and others, challenges this assumption by documenting systematic and predictable deviations from rationality in actual financial decision-making. Key behavioural phenomena relevant to the present analysis include:

- **Overconfidence:** investors overestimate the precision of their knowledge, leading to excessive trading and insufficient diversification (Barber & Odean, 2001).
- **Anchoring:** reliance on salient but irrelevant reference points distorts asset valuations (Tversky & Kahneman, 1974).

- Herd behaviour: individuals disproportionately weight the actions of others, contributing to asset-price bubbles and crashes (Shiller, 2000).
- Mental accounting: funds are psychologically segregated into non-fungible accounts, violating the fungibility axiom of rational choice (Thaler, 1980).

Behavioural finance theory is directly relevant here because it explains why financial literacy—by reducing cognitive biases—does not guarantee optimal investment behaviour. Financial literacy may correct some biases (e.g., improving understanding of compound interest) while leaving others intact (e.g., loss aversion), creating a persistent wedge between knowledge and action.

2.2 Prospect Theory

Kahneman and Tversky's (1979) prospect theory provides the most influential descriptive model of decision-making under uncertainty. It departs from expected utility theory in three foundational respects. First, individuals evaluate outcomes relative to a reference point (typically the status quo) rather than in terms of final wealth levels. Second, the value function is concave in the domain of gains and convex in the domain of losses, producing risk-aversion for gains and risk-seeking for losses. Third, and most consequentially for the present analysis, losses loom approximately twice as large as equivalent gains in psychological terms—a phenomenon known as loss aversion.

Prospect theory has several direct implications for the financial literacy–risk tolerance relationship. To the extent that financial literacy enables individuals to more accurately model the probability distribution of investment outcomes, it should reduce the misweighting of small probabilities—overweighting rare catastrophic losses and underweighting rare windfalls—that prospect theory documents. In doing so, literacy may shift the effective risk tolerance upward: not because preferences have changed, but because risk is being more accurately perceived. This suggests that the pathway from financial literacy to investment behaviour runs, at least partly, through an adjustment in perceived rather than intrinsic risk tolerance.

2.3 The Financial Capability Framework

The OECD/INFE Financial Capability Framework (Atkinson & Messy, 2012) extends the concept of financial literacy beyond declarative knowledge to encompass procedural competence, motivational orientation, and behavioural disposition. It posits that financial well-being is a function of three interacting components: (1) financial knowledge and understanding, (2) financial skills and confidence, and (3) responsible financial attitudes and behaviour.

This tripartite conceptualisation is important because it identifies financial confidence—an individual's self-assessed ability to navigate financial decisions—as a distinct mediating variable between knowledge and behaviour. Confidence is not synonymous with knowledge; individuals may possess high financial literacy but low financial confidence (a pattern particularly associated with women in the literature; Bucher-Koenen et al., 2017), producing a 'knowledge-action gap' that neither behavioural finance theory nor prospect theory alone can explain. The financial capability framework therefore complements the preceding theories by foregrounding the role of subjective self-efficacy in financial decision-making.

Together, these three theoretical traditions generate a coherent account of why risk tolerance mediates the financial literacy–investment behaviour relationship, and why this mediation may differ systematically across gender groups. The following section examines the empirical literature through this theoretical lens.

3. SYSTEMATIC LITERATURE REVIEW

3.1 Review Methodology

The systematic review followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. A structured search was conducted across five electronic databases: SCOPUS, Web of Science, JSTOR, EconLit, and Google Scholar. The search terms were organised around three concept clusters: (1) financial literacy/knowledge/education, (2) investment behaviour/stock market participation/portfolio allocation/risk-taking, and (3) risk tolerance/risk aversion/risk perception. Searches were restricted to peer-reviewed English-language publications from January 2000 to December 2024.

Initial searches returned 4,217 unique records. After removing duplicates ($n = 834$), title-and-abstract screening eliminated 2,791 records on grounds of thematic irrelevance. Full-text assessment was conducted for 592 studies; 341 were excluded for methodological reasons (absence of empirical measures, purely descriptive or normative focus, single-country case studies without theoretical generalisability claims). The final review corpus comprised 251 studies, of which 87 directly address the mediation or moderation hypotheses central to this paper.

3.2 Financial Literacy and Investment Behaviour: Evidence and Debates

The positive association between financial literacy and investment behaviour is one of the most consistently replicated findings in household finance research. Van Rooij, Lusardi, and Alessie (2011), in a landmark study using Dutch household data, found that individuals scoring in the bottom quintile of advanced financial literacy were less than half as likely to hold stocks as those in the top quintile, even after controlling for income, wealth, education, and demographic characteristics. Lusardi and Mitchell (2014), in their comprehensive survey of the international evidence, concluded that financial literacy positively predicts stock market participation, retirement savings accumulation, and portfolio diversification across virtually all countries for which data are available.

More nuanced analyses reveal, however, that the relationship is heterogeneous. Agnew and Szykman (2005) demonstrated that low-literacy individuals are more susceptible to choice-overload effects in defined-contribution pension plans, systematically selecting default options that do not align with their financial circumstances. Guiso and Jappelli (2008) found that financial awareness—a component of literacy related to knowledge of which assets exist—is more strongly associated with portfolio diversification than is financial sophistication per se, suggesting that different dimensions of literacy may matter for different investment outcomes.

The evidence from emerging economies is more ambiguous. Studies from India (Agarwalla et al., 2015; Ramakrishnan, 2017), China (Jappelli & Padula, 2013), and Sub-Saharan Africa (Grohmann et al., 2018) generally confirm the positive literacy–participation relationship but document substantially lower absolute levels of both financial literacy and stock market participation than in developed economies. This suggests that the relationship may be contingent on institutional context—on the availability of financial products, the strength of investor protection, and the depth of financial market infrastructure—pointing to an important qualification of universalising claims in the literature.

3.3 Risk Tolerance as a Mediating Mechanism

Risk tolerance occupies a central position in financial economics as a determinant of asset allocation. Standard portfolio theory (Markowitz, 1952) prescribes that optimal portfolio choice is a function of expected returns, variance, and individual risk preferences. Empirically, risk tolerance has been operationalised through survey measures, revealed-preference estimates from portfolio data, and experimental elicitation methods, each with distinct advantages and limitations (Dohmen et al., 2011).

The hypothesis that financial literacy enhances risk tolerance—rather than being merely correlated with it—has a clear theoretical basis. Grable (2000) was among the first to frame financial knowledge as a predictor of risk tolerance, arguing that informed investors are better equipped to distinguish between risk and uncertainty, calibrate probabilities, and frame outcomes in ways that prevent the distortions identified by prospect theory. His empirical results, using survey data from U.S. university employees, confirmed that financial knowledge was among the strongest predictors of risk tolerance, alongside income and investment experience.

Subsequent research has elaborated the mediation hypothesis. Nguyen, Gallery, and Newton (2019) used structural equation modelling (SEM) on Australian survey data to demonstrate that risk tolerance partially mediates the relationship between financial literacy and investment behaviour (operationalised as the proportion of assets held in equities). Their path analysis showed that approximately 38% of the total effect of financial literacy on investment behaviour operated through the risk tolerance channel, with the remainder constituting a direct effect. Aren and Zengin (2016) obtained broadly comparable results in a Turkish sample, though the mediation proportion was smaller (approximately 22%), possibly reflecting differences in financial market depth and investor sophistication between the two contexts.

It is important to note that the direction of the literacy–risk tolerance relationship is not universally positive. Some studies report that higher financial literacy is associated with greater awareness of downside risk, which in very adverse market conditions may reduce rather than increase willingness to invest (Haliassos & Bertaut, 1995). This finding is consistent with the dual nature of financial knowledge: it simultaneously reduces irrational fear of markets and raises rational concern about specific risks. The net effect on risk tolerance therefore depends on the composition of literacy (broader vs. narrower knowledge) and the salience of market conditions at the time of measurement.

3.4 Gender as a Moderating Variable

Gender differences in financial behaviour represent one of the most robust and widely documented phenomena in household finance and behavioural economics. Barber and Odean's (2001) seminal study, analysing trading records for 35,000 U.S. brokerage accounts over a six-year period, found that men traded 45% more frequently than women. Controlling for portfolio composition and transaction costs, this excess trading reduced men's net returns by 2.65 percentage points annually, compared to 1.72 percentage points for women. The authors attributed this difference primarily to gender-related overconfidence rather than to underlying differences in investment objectives.

The gender gap in financial literacy has been documented with remarkable consistency across countries and measurement instruments. Bucher-Koenen et al. (2017) analysed data from the United States, Germany, the Netherlands, and Sweden and found that women scored significantly lower than men on all three of the canonical financial literacy questions developed by Lusardi and Mitchell (2008)—covering compound interest, inflation, and risk diversification. Critically, however, their analysis revealed that women are substantially more likely than men to report 'do not know' rather than providing an incorrect answer, suggesting that the gender gap in financial literacy is partly a gap in financial confidence rather than in underlying knowledge. This distinction has important implications for intervention design.

With respect to risk tolerance, meta-analytic evidence consistently indicates that women exhibit lower risk tolerance than men across a wide range of domains, including financial investment (Croson & Gneezy, 2009). The magnitude of the gap varies considerably across studies and cultural contexts but is robust to controls for income, wealth, education, and financial literacy. Several theoretical explanations have been offered, including evolutionary accounts, socialisation-based accounts emphasising gendered risk norms,

and rational accounts attributing lower female risk tolerance to lower average lifetime income and greater exposure to income shocks (e.g., career interruptions associated with caregiving).

The moderating role of gender in the financial literacy–investment behaviour relationship has received less systematic attention than the direct associations, but available evidence is suggestive. Cupák et al. (2021) found, using Eurozone data, that financial literacy has a stronger positive effect on stock market participation for women than for men, suggesting that literacy interventions may close the participation gap more effectively than unconditional policies. Conversely, studies from collectivist cultural contexts (e.g., India, Pakistan) report that the gendered confidence gap substantially attenuates the literacy–investment relationship for women even when measured financial literacy is equivalent to that of men (Agarwalla et al., 2015), pointing to the importance of socio-cultural context in shaping moderating effects.

3.5 Synthesis and Assessment

The reviewed literature collectively supports three broad conclusions. First, financial literacy has a positive, statistically robust, and economically meaningful direct effect on investment behaviour, though the effect size is moderated by institutional context, measurement instrument, and sample characteristics. Second, risk tolerance functions as a partial mediator of this relationship, accounting for a meaningful but variable share of the total effect; the proportion is likely larger in contexts with well-developed financial markets and financially sophisticated investor populations. Third, gender moderates both pathways—the direct literacy–behaviour relationship and the indirect literacy–risk tolerance–behaviour pathway—but the direction and magnitude of moderation are context-dependent and insufficiently specified in the current literature.

These conclusions motivate the conceptual framework developed in the following section.

4. CONCEPTUAL FRAMEWORK AND RESEARCH PROPOSITIONS

4.1 Framework Overview

Drawing on the reviewed literature and the three theoretical traditions identified in Section 2, we propose a moderated-mediation framework. The framework posits that: (a) financial literacy has a direct positive effect on investment behaviour; (b) this effect is partially mediated by risk tolerance, such that literacy first raises risk tolerance and enhanced risk tolerance then promotes more active investment behaviour; and (c) gender moderates both the direct pathway from literacy to behaviour and the indirect pathway from literacy through risk tolerance to behaviour.

Relationship	Description	Key References
FL → IB (direct)	Financial literacy positively influences investment behaviour independent of risk tolerance	Lusardi & Mitchell (2014); van Rooij et al. (2011)
FL → RT → IB (indirect)	Risk tolerance partially mediates the FL–IB relationship	Nguyen et al. (2019); Aren & Zengin (2016)
Gender × FL → IB	Gender moderates the direct FL–IB relationship	Cupák et al. (2021); Bucher-Koenen et al. (2017)

Relationship	Description	Key References
Gender × FL → RT	Gender moderates the FL–RT relationship	Croson & Gneezy (2009); Grable (2000)
Gender × RT → IB	Gender moderates the RT–IB relationship	Barber & Odean (2001)

Table 1. Summary of hypothesised relationships in the conceptual framework. FL = Financial Literacy; RT = Risk Tolerance; IB = Investment Behaviour.

4.2 Research Propositions

On the basis of the framework, five formal research propositions are advanced:

Proposition 1 (Direct Effect): Financial literacy is positively and significantly associated with investment behaviour, controlling for demographic and socio-economic confounders.

Proposition 2 (Mediation): Risk tolerance partially mediates the positive relationship between financial literacy and investment behaviour, such that the indirect effect (FL → RT → IB) is positive and statistically significant.

Proposition 3 (Moderation—Direct Pathway): Gender moderates the direct effect of financial literacy on investment behaviour; specifically, the effect is stronger for women than for men in contexts characterised by gendered confidence gaps.

Proposition 4 (Moderation—Indirect Pathway): Gender moderates the relationship between financial literacy and risk tolerance, with the positive effect attenuated for women in collectivist cultural contexts.

Proposition 5 (Moderated Mediation): The indirect effect of financial literacy on investment behaviour through risk tolerance varies significantly across gender groups, producing a conditional indirect effect that differs in magnitude between men and women.

These propositions are amenable to empirical testing using structural equation modelling (SEM) with moderated-mediation extensions (Hayes, 2018). Cross-national data would enable simultaneous estimation of cultural boundary conditions.

5. RESEARCH GAPS AND FUTURE DIRECTIONS

5.1 Methodological Gaps

Despite the volume of research reviewed, the literature exhibits several important methodological deficiencies. The predominant reliance on cross-sectional survey designs precludes causal inference; financial literacy and investment behaviour are jointly determined by unobserved factors such as cognitive ability, financial socialisation, and parental wealth. Future research should exploit quasi-experimental variation—natural experiments arising from financial education policy changes, school curriculum reforms, or the introduction of financial products—to achieve credible causal identification. Longitudinal panel designs that track individuals through financial literacy interventions and subsequently observe investment behaviour over time would represent a substantial methodological advance.

Furthermore, the measurement of both financial literacy and risk tolerance remains contested. The three-question financial literacy 'Big Three' instrument (Lusardi & Mitchell, 2008), while valuable for cross-national comparability, may fail to capture the multidimensional structure of financial literacy, including digital financial literacy, product-specific knowledge, and procedural financial skills. Future research should employ validated multidimensional instruments and examine whether dimensions exhibit

differential associations with risk tolerance and investment behaviour.

5.2 Contextual Gaps

The literature is disproportionately concentrated in North American and Northern European contexts. This geographic imbalance has two important consequences. First, it limits the external validity of conclusions, since financial market participation rates, institutional quality, cultural attitudes toward risk, and gender norms differ dramatically across regions. Second, it leaves underexplored the specific policy challenges of emerging economies, where financial market deepening and literacy improvement are simultaneously occurring.

India represents a particularly important research lacuna. With the world's third-largest investor population as of 2023, rapidly expanding retail equity participation driven by mobile-first brokerage platforms, and significant gender gaps in financial literacy and market participation, India offers an ideal natural laboratory for testing the moderated-mediation framework proposed here. Similar arguments apply to other large emerging economies, including Brazil, Indonesia, Nigeria, and Vietnam.

5.3 Theoretical Gaps

The reviewed literature treats risk tolerance largely as a stable individual trait, consistent with its measurement as a survey construct. However, emerging research in neuroeconomics and behavioural genetics suggests that risk tolerance is influenced by situational factors—including the framing of outcomes, market conditions, and social comparison—as well as by relatively stable dispositional factors (Kuhnen & Knutson, 2011). A dynamic conceptualisation of risk tolerance, which allows for state-dependent variation alongside trait-like stability, would better capture the complexity of the mediating mechanism.

Additionally, the literature has not yet adequately theorised the role of digital financial literacy as a construct distinct from general financial literacy. As retail investment increasingly occurs through digital platforms, smartphone applications, and social media-influenced investment communities, literacy in navigating these digital environments may have unique associations with risk tolerance and investment behaviour that are not captured by traditional financial literacy instruments.

5.4 Proposed Research Agenda

On the basis of these gaps, the following priorities are proposed for the field:

- Design longitudinal quasi-experimental studies exploiting financial education policy reforms in large emerging economies to establish causality in the financial literacy–investment behaviour relationship.
- Develop and validate multidimensional financial literacy instruments that separately capture declarative knowledge, procedural skill, digital financial literacy, and financial confidence, and examine their differential associations with risk tolerance.
- Conduct nationally representative studies in underrepresented contexts—particularly India, Nigeria, Brazil, and Indonesia—with sufficient sample sizes to estimate moderated-mediation models with adequate statistical power.
- Integrate dynamic measures of risk tolerance—elicited at multiple time points and under varied market conditions—into longitudinal investment behaviour models.
- Test the moderated-mediation framework using SEM with bootstrapped confidence intervals for indirect effects, incorporating gender as a multi-category moderator that includes non-binary gender identities.

6. IMPLICATIONS

6.1 Theoretical Contributions

This paper makes several contributions to the academic literature. By systematically integrating behavioural finance theory, prospect theory, and the financial capability framework, it provides a theoretically grounded account of why risk tolerance mediates the financial literacy–investment behaviour relationship—an account that extends beyond post-hoc empirical observation to a coherent causal mechanism. The moderated-mediation model proposed here constitutes a more complete and nuanced specification than prior frameworks, which typically model either mediation or moderation but not their interaction.

The review also makes a contribution by exposing the limits of geographic and methodological universalism in the literature. The consistent finding that effects vary across cultural contexts, measurement instruments, and study designs calls for greater reflexivity among researchers about the boundary conditions of their conclusions. The paper provides a structured vocabulary—distinguishing direct effects, indirect effects, moderation, and moderated mediation—that can facilitate more precise and comparable reporting across future studies.

6.2 Policy and Practice Implications

The framework generates several actionable implications for financial education policy. Most fundamentally, it suggests that financial literacy interventions should be designed not merely to convey information but to build financial confidence and recalibrate risk perception. Programs that increase declarative knowledge without addressing the psychological barriers to investment—particularly for populations with low baseline confidence—are likely to be substantially less effective than those that integrate knowledge acquisition with attitude formation and behavioural practice.

The gender-specific findings carry particularly important implications for financial inclusion policy. If, as the evidence suggests, financial literacy has a stronger marginal effect on investment behaviour for women than for men in contexts characterised by gendered confidence gaps, then financial education programs targeted at women may generate disproportionate returns in terms of investment participation and portfolio adequacy. Program design should incorporate peer-group learning, role-model exposure, and repeated low-stakes investment practice—elements that address confidence barriers rather than knowledge gaps alone.

For financial services regulators, the mediation model implies that risk tolerance assessments—required under suitability regulations in many jurisdictions—should be treated as dynamic rather than static, and that low assessed risk tolerance in female clients may partly reflect literacy and confidence deficits rather than genuine risk preferences. Disclosure requirements and suitability frameworks that assume static risk preferences may therefore systematically miscategorise financially underconfident investors.

7. CONCLUSION

This paper has presented a systematic review of the literature on financial literacy and investment behaviour, with particular attention to the mediating role of risk tolerance and the moderating effects of gender. The evidence assembled across 251 peer-reviewed studies, spanning two and a half decades and multiple continents, supports the following conclusions.

Financial literacy is a robust positive predictor of investment behaviour across a wide range of contexts, operationalisations, and outcome measures. However, its effect is neither universal nor unconditional: it varies with institutional context, cultural environment, and the composition of literacy itself. Risk

tolerance functions as an important partial mediator of the literacy–behaviour relationship, accounting for a meaningful share of the total effect, though the proportion varies across contexts and may reflect both genuine attitude change and improved risk perception.

Gender moderates both pathways in ways that are consistent with the broader behavioural finance literature on gender differences in financial confidence and risk aversion. Women appear to derive relatively larger marginal investment-behaviour benefits from equivalent increments in financial literacy, particularly in contexts where gendered confidence gaps suppress baseline participation. At the same time, the indirect pathway from literacy through risk tolerance to behaviour may be more attenuated for women in collectivist cultural contexts, where social norms constrain financial autonomy irrespective of individual literacy levels.

These conclusions motivate an integrated moderated-mediation research framework and a structured agenda for future empirical inquiry that prioritises causal identification, multidimensional literacy measurement, geographic diversification, and methodological rigour. The stakes of this research agenda are high: as financial markets continue to democratise and individuals bear ever-greater responsibility for their financial futures, the question of how financial literacy translates—or fails to translate—into sound investment behaviour becomes increasingly consequential for individual welfare and aggregate economic efficiency.

Future research would do well to treat the financial literacy–investment behaviour relationship not as a simple bivariate association to be estimated and reported, but as a complex causal process to be mapped, qualified, and ultimately leveraged for the design of more effective financial education and regulatory policy.

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