International Journal of Economic Practices and Theories (IJEPT)
ISSN: 2247-7225
Volume 2026, Issue 1

Does Better ESG Disclosure Make Retail Investors More Willing to Invest Sustainably? Evidence on Perceived Disclosure Quality, Trust, Greenwashing Risk and Investment Intention from Indian Individual Investors

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Abstract:

Background. Environmental, social and governance (ESG) disclosure is a main source of non-financial information for investors, but individual investors often find it incomplete, hard to compare and open to suspicion of greenwashing.

Objectives. This study examines whether perceived ESG disclosure quality is associated with sustainable investment intention among individual investors, whether investor trust and perceived greenwashing risk mediate the association, and whether ESG knowledge (a proxy for financial literacy) and sustainability orientation moderate it.

Methods. A cross-sectional online survey was administered to individual investors in India between 26 and 30 October 2026; 104 responses were received and 100 were analysed. Nine hypotheses were tested with ordinary least squares with HC3 robust standard errors, bootstrapped parallel mediation (5,000 resamples) and mean-centred interaction models.

Findings. Perceived disclosure quality was strongly associated with sustainable investment intention (B = 0.65, p

< .001, RZ = 0.37) and with trust (B = 0.72, p < .001), and both results held in robustness checks. Neither trust nor perceived greenwashing risk mediated the association, and neither moderator altered it. Ease of comparison and ease of finding and understanding information were the only disclosure features that independently predicted intention.

Conclusion. Disclosure that investors find comparable and understandable is linked to stronger intention to invest sustainably; results on mechanisms are inconclusive because of single-item measures and a small sample.

Keywords: ESG disclosure quality; sustainable investment intention; individual investors; investor trust; greenwashing; financial literacy

1. Introduction

1.1 Background of the study

Sustainable investing, which weighs environmental, social and governance factors alongside financial indicators, has become a significant part of global capital markets. Pástor et al. (2021) report that assets managed under sustainable investing principles now run into tens of trillions of dollars, and show in an equilibrium model that investor tastes for green assets affect prices and can lower the expected returns of those assets. The financial case is debated but broadly non-negative. Friede et al. (2015), in a second-order synthesis of around 2,200 studies, find that about 90% report a non-negative relationship between ESG criteria and financial performance; Eccles et al. (2014), using a matched sample of 180 US firms, show that firms that adopted sustainability policies early differ in organisational processes and performance; and Lins et al. (2017) find that firms with high corporate social responsibility earned roughly 4–7% higher returns in the 2008–2009 financial crisis, a result they attribute to the value of trust in firms.

Disclosure is the main channel through which companies inform the market about their ESG performance. For

individual investors it can lower information asymmetry, provide evidence of long-term risk management and help identify firms that match their values. Its value, however, depends on its quality. Information that is vague, delayed, unverified or inconsistent across firms may go unused, and earlier studies point to comparability, greenwashing, divergence among rating agencies and processing costs as reasons why investors discount sustainability disclosures.

Most research on how ESG information reaches capital markets concerns institutions or firm-level outcomes. Dyck et al. (2019) show, across 41 countries, that institutional ownership is associated with better environmental and social performance, consistent with both financial and social motives. Studies of individuals find that motives extend beyond financial return: Riedl and Smeets (2017) combine administrative, survey and experimental data from a Dutch fund provider and find that social preferences and social signalling are the main drivers of holding socially responsible funds, and Hartzmark and Sussman (2019) show that low-sustainability funds lost over USD 12 billion after Morningstar introduced sustainability ratings, without evidence that high-sustainability funds performed better. Individuals also face a harder information environment. Park and Oh (2022) note that research on ESG information use has concentrated on institutions and argue that standardised reporting and evaluation would ease use by individuals, while Berg et al. (2022) show, across six rating agencies and 709 indicators, that ESG ratings diverge because of differences in scope, measurement and weights.

1.2 Research problem

Evidence on how ESG disclosure affects retail investors is inconsistent. In an online asset-market experiment, Janz et al. (2025) find that ESG information raised portfolio reallocation by about 11 percentage points relative to a control group, but the amount of detail did not matter and age, education and investing experience were negatively related to reallocation. Sanseverino et al. (2024) find that ESG information raised the amount non-professional investors invested, but that information on progress towards ESG targets added nothing. Moss et al. (2024), analysing positions at an online retail broker, find no effect of ESG disclosure on retail trades. Taken together, these results suggest that the mere presence of disclosure does not move retail investors; how they perceive and interpret it appears to matter. The problem addressed here is therefore the limited understanding of how perceived disclosure quality, together with trust and perceived greenwashing risk, relates to the sustainable investment intentions of individual investors.

1.3 Research gap

Four gaps remain. First, many studies treat ESG as a single broad concept rather than examining disclosure attributes such as completeness, comparability, credibility, timeliness and external assurance. Second, the mechanisms linking disclosure quality to intention, in particular investor trust and concern about greenwashing, are rarely tested empirically. Third, individual investors, whose role in capital markets is growing, receive far less attention than institutions. Fourth, financial literacy and sustainability orientation may determine whether investors can and want to use disclosures, but their moderating roles are insufficiently studied, particularly in emerging markets such as India.

1.4 Research objectives

The main objective is to assess the effect of perceived ESG disclosure quality on sustainable investment intention among individual investors. The specific objectives are:

1. To examine the relationship between ESG disclosure quality and individual investors' trust in sustainability information (Objective 1).

2. To examine how ESG disclosure quality relates to investors' attitudes towards sustainable investing (Objective 2).

3. To assess the effect of ESG disclosure quality on sustainable investment intention (Objective 3).

4. To assess the moderating role of investor characteristics, namely ESG knowledge (as a financial-literacy proxy) and sustainability orientation, in that relationship (Objective 4).

1.5 Research questions and hypotheses

The objectives translate into five research questions. **RQ1:** How does perceived ESG disclosure quality influence sustainable investment intention? **RQ2:** How does it influence investors' confidence in corporate sustainability statements? **RQ3:** Does higher perceived quality reduce the perceived risk of greenwashing? **RQ4:** Do trust and perceived greenwashing risk mediate the link between disclosure quality and intention? **RQ5:** Do financial literacy and sustainability orientation moderate that link?

Drawing on signalling theory, information-asymmetry theory, legitimacy theory and the theory of planned behaviour, nine hypotheses (H1–H9) are tested; they are developed in Section 2.7 and summarised in Table 2.

1.6 Significance of the study

Theoretically, the study treats disclosure quality as a multidimensional, investor-level perception rather than a firm-level property (Christensen et al., 2021; Berg et al., 2022), joins trust and perceived greenwashing in one model (Lins et al., 2017; Delmas & Burbano, 2011; Lyon & Maxwell, 2011), and allows capability and values to condition the effect of information (Lusardi & Mitchell, 2014; Riedl & Smeets, 2017). **Practically**, it indicates which reporting features matter most to investors, which can help companies, asset managers and intermediaries present sustainable products more effectively, and it informs investor-education programmes. **For policy**, regulators and standard setters are weighing mandatory sustainability reporting, which may have unintended consequences (Christensen et al., 2021); evidence on how retail investors judge disclosure quality, and whether those judgements relate to their intentions, is useful input for that debate.

The remainder of the paper is organised as follows. Section 2 reviews the literature and develops the hypotheses; Section 3 describes the methodology; Section 4 reports the results; Section 5 discusses them; and Section 6 concludes.

2. Literature Review

2.1 Theoretical foundations

Five theoretical perspectives describe different parts of the path from what a firm discloses to an individual's decision to invest sustainably. **Information asymmetry** (Akerlof, 1970) holds that when buyers cannot tell good quality from bad, markets can unravel. Managers know more about ESG performance than outsiders, and individual investors have the fewest resources to gather and verify information; disclosure narrows the gap only if investors find it convincing. **Signalling theory** (Spence, 1973; Connelly et al., 2011) identifies a signaller (the firm), a signal (the disclosure) and a receiver (the investor); a signal is credible to the extent that it is costly to fake and verifiable, so a specific, measurable and independently assured statement is more informative than a generic commitment (see also Connelly et al., 2025). **Legitimacy theory** (Suchman, 1995) sees reporting as a means of gaining and keeping stakeholder approval, and, when reporting is selective or symbolic, as a route to greenwashing (Lyon & Maxwell, 2011; Delmas & Burbano, 2011). The **theory of planned behaviour** (Ajzen, 1991) treats intention as the immediate antecedent of behaviour, shaped by attitude, subjective norms and perceived behavioural control, and has been applied to ethical and ESG investing (Hofmann et al., 2009; Sesini et al., 2026; Lengyel & Harangozó, 2025). The **unified theory of acceptance and use of technology** (Venkatesh et al., 2003), applied to ESG information by Park and Oh (2022), highlights the effort needed to access and use information and the value it offers. Table 1 shows how they combine: disclosure quality shapes trust and perceived greenwashing, which in turn shape intention, conditional on the investor's capability and values.

Table 1. Integration of the theoretical perspectives

Theory	Core idea	Role in the model
Information asymmetry (Akerlof, 1970)	Quality uncertainty degrades markets when one side is better informed	Why disclosure quality matters to individual investors
Signalling theory (Spence, 1973; Connelly et al., 2011)	Costly, verifiable signals convey information to receivers	Why verifiability and assurance raise trust
Legitimacy theory (Suchman, 1995)	Organisations seek perceived appropriateness	How selective reporting gives rise to perceived greenwashing

Theory of planned behaviour (Ajzen, 1991)	Intention follows from attitude, norms and perceived control	Outcome construct: sustainable investment intention
UTAUT (Venkatesh et al., 2003)	Adoption depends on expected performance and effort	Role of comparability, understandability and capability

ESG disclosure and investor decisions

ESG disclosure gives investors information on risk exposure, management quality and value creation over time, but Park and Oh (2022) argue that individuals use it mainly to reduce risk and that its usefulness depends on accessibility, comparability and processing cost. Experimental evidence supports an effect on retail decisions: Janz et al. (2025) report an 11-percentage-point increase in reallocation when ESG information was provided, with no added effect from more detail, and Sanseverino et al. (2024) find larger investments under ESG disclosure but no extra effect of progress information. Survey evidence from Pakistan indicates that environmental and governance disclosure influences individual asset allocation more than social disclosure ("Role of ESG disclosure," n.d.), and a study of 450 individual investors in the Asia-Pacific region identifies credibility, cognitive interpretation and ethical judgement as determinants of the usefulness of ESG accounting disclosures ("Cognitive and behavioral responses," n.d.). Related work examines retail attention to ESG news (Li et al., 2024), ESG nudges (Hutchings, 2025), disclosure assurance (Ernst et al., 2026) and the readability of sustainability reports (Ahn et al., 2023); Amel-Zadeh and Serafeim (2018) survey why and how investors use ESG information.

The evidence is not uniform. Moss et al. (2024) find no effect of ESG disclosure on retail buying and selling, and the results of Janz et al. (2025), Sanseverino et al. (2024) and Moss et al. (2024) jointly suggest a conditional effect that depends on the form of information, investors' attention and processing, and their belief that the information is credible. Fund-flow evidence reinforces this: flows respond to simple, salient ratings but not to performance (Hartzmark & Sussman, 2019), and social preferences and signalling matter (Riedl & Smeets, 2017). A critical reading is that studies differ in outcome (reallocation, trades, intentions), in respondents and in how disclosure is operationalised, which makes it hard to say whether disclosure per se, or perceived quality, drives behaviour. Institutions have analysts, data providers and engagement channels; individuals rely on what firms and intermediaries make public (Dyck et al., 2019; Park & Oh, 2022), which raises the importance of how that information is perceived.

2.2 Disclosure quality, rating divergence and regulation

Individuals often rely on ratings and labels because reports take time to interpret, which makes the trustworthiness of intermediaries part of the information environment. Berg et al. (2022) decompose rating divergence into scope, measurement and weight divergence and argue that it makes ESG performance hard to measure, weakens firms' incentives to improve and blurs the link between ESG performance and prices; for an individual, a single rating cannot settle whether a firm is sustainable. Standardisation and mandatory reporting may improve comparability and consistency, but Christensen et al. (2021) caution about unintended consequences and note that standardisation does not by itself make investors find information credible or understandable. Strategic disclosure is a further concern: in Lyon and Maxwell's (2011) model, activist scrutiny can reduce disclosure as well as greenwashing, and Delmas and Burbano (2011) show that regulatory, market, organisational and individual factors jointly determine greenwashing. Perceptions of completeness, consistency and assurance are therefore cues about whether disclosure is selective.

Building on this, perceived ESG disclosure quality is treated as multidimensional: **completeness** (covering material issues, problems as well as achievements), **comparability** (across firms and years), **credibility** (claims backed by evidence and consistent across channels), **timeliness**, **understandability** (low effort, in the UTAUT sense) and **assurance** (third-party verification).

2.3 Trust and perceived greenwashing risk

Trust is defined here as the investor's belief that sustainability information is reliable and reflects what firms

actually do; it matters most when investors cannot verify claims themselves. Lins et al. (2017) document its economic value for firms, and signalling theory implies that specific, consistent and assured disclosures earn more trust than generic ones. Sesini et al. (2026) add trust to planned-behaviour variables in a study of Italian investors. Perceived greenwashing risk is the concern that sustainability information is misleading, biased or false. It is related to trust but distinct: a generally trusting investor may still worry about specific reports. Delmas and Burbano (2011) warn that greenwashing damages confidence in green products and in the sustainable-investment market as a whole. Studies of retail investors have linked greenwashing perception to ESG investing ("When green turns red," 2025), and have examined assurance level and assurer type ("Investors' reactions," 2026), the role of risk–return perception and trust among middle-income investors ("Risk return perception," 2026) and greenwashing in environmental funds (Abouarab et al., 2025). The model therefore treats trust and perceived greenwashing risk as two separate mediators.

2.4 Sustainable investment intention

Sustainable investment intention is an investor's self-reported intention to invest in firms, funds or products meeting ESG criteria. In the planned-behaviour framework it is the proximal antecedent of behaviour (Ajzen, 1991). Its advantage in a cross-sectional survey is that it can be measured consistently across investors with different portfolios; its weakness is that intention does not always translate into action. Sesini et al. (2026) find that attitudes, norms, perceived control and trust shape ESG investment intentions among Italian investors, and Lengyel and Harangozó (2025), using PLS-SEM on a Hungarian sample of 228, find that general and sustainability-specific attitudes, ESG-related subjective norms and self-efficacy support intention. Studies of green investment intention in Indonesia emphasise the mediating role of green trust ("Theory of planned behavior," n.d.), and a study of Generation Z investors finds that attitude and perceived control matter while subjective norms do not ("The green investment intentions of Gen Z," n.d.). Indian studies have examined financial literacy and socially responsible investing (Kar & Patro, 2024), non-economic goals (Passi et al., 2025) and the quality of ESG disclosure among Millennial and Generation Z retail investors ("Beyond greenwashing," 2026). Together, they indicate that intention depends not only on information but also on confidence, values and perceived ability to act, which is why information quality is positioned here as an upstream determinant working through investors' evaluations of reliability.

2.5 Financial literacy and sustainability orientation

Financial literacy helps investors read sustainability metrics, weigh risk and return and compare firms. Lusardi and Mitchell (2014) review its economic importance, and van Rooij et al. (2011) show that many households cannot answer questions on basic concepts such as compounding, inflation and diversification and that less literate households are less likely to hold stocks. Studies of young investors report that financial literacy, ESG awareness, attitudes, norms and perceived control are positively associated with ESG investment intention ("Determinants of ESG investment awareness," n.d.), and Lanciano et al. (2025) examine financial literacy and sustainable finance decisions among Italian households. The direction of moderation is uncertain: Janz et al. (2025) find that experience, age and education are associated with lower reallocation in response to ESG information, possibly because more experienced investors already discount or incorporate it. A finding contrary to the capability argument would therefore be informative, not a failure of the model.

Sustainability orientation is the importance an investor places on environmental protection, social responsibility and ethical governance. Riedl and Smeets (2017) and Hartzmark and Sussman (2019) show that social preferences and non-pecuniary motives shape sustainable investing, and Dyck et al. (2019) show that social norms matter for institutional investors' influence. Values should determine whether investors attend and respond to quality information, while literacy should determine whether they can: orientation motivates, literacy enables.

2.6 Evidence summary and hypothesis development

Table 2 lists the hypotheses with the parameters of the structural model (Section 3.5) and their expected signs. The reasoning for each is as follows.

H1 (disclosure quality → intention). Experimental and survey-experimental evidence and fund-flow evidence

indicate that ESG information can shift retail allocations (Janz et al., 2025; Sanseverino et al., 2024; Hartzmark & Sussman, 2019). Complete, comparable, credible, timely, understandable and assured information should reduce uncertainty and support intention; given the null findings of Moss et al. (2024), the effect is expected to operate through perceived credibility, which is modelled next. **H2–H4 (trust).** Verifiable, costly signals are more credible (Connelly et al., 2011), trust has economic value (Lins et al., 2017) and is an antecedent of ESG investment intention (Sesini et al., 2026); hence disclosure quality raises trust (H2), trust raises intention (H3) and trust mediates the effect of quality on intention (H4). **H5–H7 (greenwashing risk).** Greenwashing is selective disclosure of positive information (Lyon & Maxwell, 2011) and erodes investor confidence (Delmas & Burbano, 2011); complete, consistent and assured disclosure should lower perceived greenwashing risk (H5), perceived risk should lower intention (H6), and risk should mediate the effect of quality on intention (H7). **H8 (financial literacy).** Literate investors are better able to interpret and compare sustainability data, so the effect of quality on intention should be stronger for them (Lusardi & Mitchell, 2014; van Rooij et al., 2011). **H9 (sustainability orientation).** Investors with stronger sustainability values should respond more to credible sustainability information (Riedl & Smeets, 2017; Hartzmark & Sussman, 2019; Dyck et al., 2019).

2.7 Conceptual framework

The literature shows that ESG information can affect retail investment but leaves three gaps: disclosure quality is rarely modelled as a multidimensional investor perception; trust and greenwashing risk are seldom combined as mediators; and the conditioning roles of literacy and sustainability orientation are under-studied. The framework in Figure 1 fills these gaps by relating disclosure quality to intention directly and indirectly through trust and perceived greenwashing risk, with financial literacy and sustainability orientation as moderators.

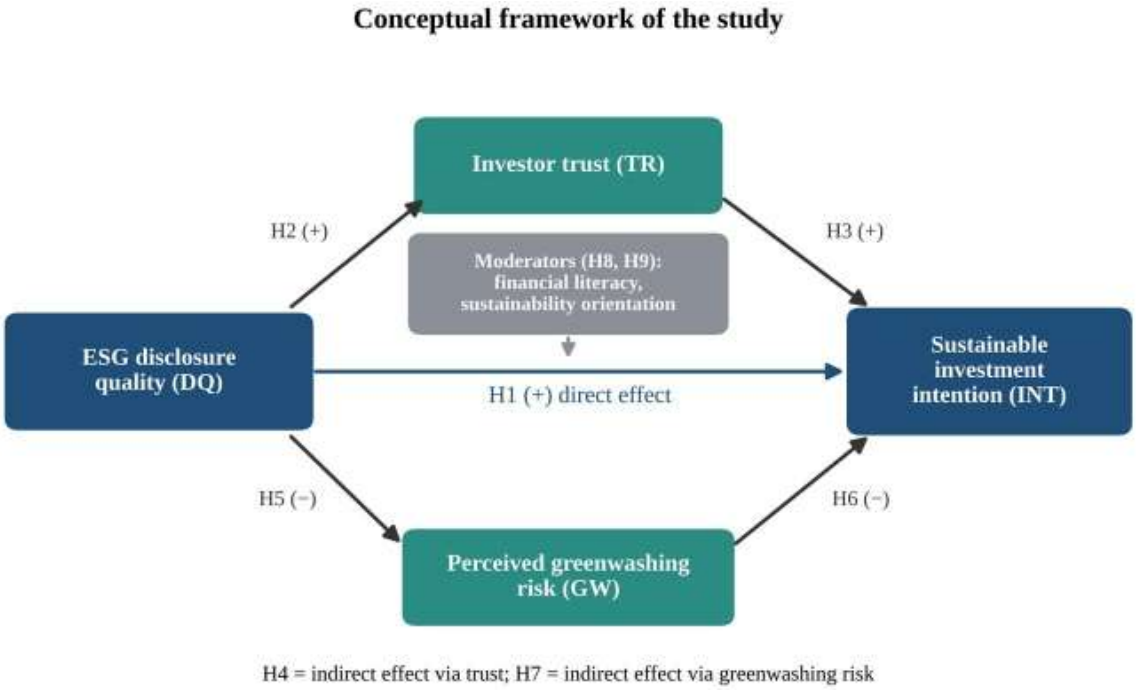


Figure 1. Conceptual framework of the study

Source: Developed by the author. H4 = indirect effect via trust; H7 = indirect effect via greenwashing risk.

Table 2. Hypotheses, model parameters and expected signs

Hypothesis	Parameter	Path	Expected sign
H1	c′	DQ → INT (direct)	Positive
H2	a1	DQ → TR	Positive
H3	b1	TR → INT	Positive

H4	a1 × b1	DQ → TR → INT (indirect)	Positive
H5	a2	DQ → GW	Negative
H6	b2	GW → INT	Negative
H7	a2 × b2	DQ → GW → INT (indirect)	Positive (product of two negative paths)
H8	m1	DQ × FL → INT	Positive
H9	m2	DQ × SO → INT	Positive

DQ = disclosure quality; TR = investor trust; GW = perceived greenwashing risk; FL = financial literacy; SO = sustainability orientation; INT = sustainable investment intention.

3. Research Methodology

3.1 Research design

The study follows a positivist, deductive, explanatory approach: relationships derived from theory are expressed as hypotheses and tested on quantitative survey data. A cross-sectional design was used, with a structured online questionnaire administered once. The unit of analysis is the individual investor. Because the design is cross-sectional and the sample non-probabilistic, results describe associations among surveyed investors and are not evidence of causation.

3.2 Data sources, sampling technique and sample size

Primary data were collected from adult individual investors in India between 26 and 30 October 2026. Respondents were recruited through non-probability sampling, so the results cannot be taken as representative of all investors. The questionnaire opened with a statement that participation was voluntary, that there were no right or wrong answers and that responses would be used only for academic purposes and reported in aggregate. An optional name field was used only to detect duplicate submissions and was removed before analysis. The questionnaire contained no separate screening or attention-check item, so eligibility rests on respondents' self-description as investors.

The study was originally planned for partial least squares structural equation modelling (PLS-SEM) with at least 300 usable responses, multi-item scales for every construct and an objective financial-literacy test. The planned target was set using the ten-times rule (minimum 180 responses for the model; Hair et al., 2011) and the inverse square root method (Kock & Hadaya, 2018), under which 300 responses can detect path coefficients of about 0.14. The final instrument, however, contained 14 attitudinal items, with single items for trust, greenwashing risk and sustainability orientation, and no literacy test, and 104 responses were received. PLS-SEM cannot be applied to single-item constructs, so regression-based equivalents were used (Section 3.5). With n = 100 the inverse square root method (α

= .05, 80% power, one-tailed) gives a minimum detectable path coefficient of about 0.25 (2.486/√100); interaction effects, which are expected to be small, fall below this threshold.

3.3 Data collection and screening

Of the 104 responses received, four duplicate submissions (same name and identical demographic profile as an earlier response) were removed, keeping the first, which leaves a primary sample of 100. No out-of-range Likert values were found; spelling variants of the same response category were merged. Twelve respondents gave an identical answer to all 14 attitude items (straight-lining). They were retained in the primary sample and removed in a robustness sample (n = 88). Nineteen respondents who preferred not to state portfolio size were treated as missing for that variable only, and two respondents holding "CA intermediate" or "Professional" qualifications were left out of the ordinal education variable.

3.4 Variables and measurement

Section A of the questionnaire collected the respondent profile (age group, gender, education, investing experience, portfolio size and ESG familiarity; Q1–Q6). Section B contained 14 statements (Q7–Q20) rated on a five-point agreement scale (1 = strongly disagree to 5 = strongly agree). Table 3 maps items to constructs. Items were drafted from the literature reviewed in Section 2 and were not drawn from a single validated scale.

Table 3. Constructs, items and scoring

Construct	Items	Scoring
ESG disclosure quality (DQ)	Q7, Q9, Q10, Q11	Mean of four items: relevance, comparability, balance of positive and negative information, ease of finding and understanding
Investor trust (TR)	Q8	Single item: ESG disclosures are credible and trustworthy
Perceived greenwashing risk (GW)	Q12	Single item; higher = greater perceived risk
Sustainability orientation (SO)	Q13	Single item: strong-ESG investing fits personal values
Subjective norms	Q14	Single item
ESG knowledge (financial-literacy proxy)	Q15	Single self-rating of ability to evaluate a firm's ESG performance
Sustainable investment intention (INT)	Q16, Q18, Q19, Q20	Mean of four items
Seeking ESG disclosure	Q17	Single behavioural item, analysed separately

Controls were age, gender, education, investing experience and portfolio size. Financial literacy was not measured with an objective test; self-rated ESG knowledge (Q15) is used as a proxy, so H8 is tested only approximately.

3.5 Analytical tools and techniques

Analyses were run in the following order. (i) Descriptive statistics, reliability (Cronbach's α, composite reliability, average variance extracted), exploratory factor analysis (KMO, Bartlett's test, varimax rotation) and common-method diagnostics. (ii) Spearman rank correlations, because the data are ordinal and every construct departs from normality (Shapiro–Wilk $p < .05$). (iii) Ordinary least squares regression with HC3 heteroscedasticity-consistent standard errors for the direct paths. (iv) A parallel mediation model with 5,000 bootstrap resamples and percentile 95% confidence intervals. (v) Mean-centred interaction terms with simple-slope analysis for moderation. (vi) Mann–Whitney U, Kruskal–Wallis and chi-square tests, with Holm post hoc comparisons, for group differences. Significance is reported at * $p < .05$, ** $p < .01$ and *** $p < .001$; ns = not significant.

With DQ the disclosure quality score, TR trust, GW perceived greenwashing risk, FL the financial-literacy proxy, SO sustainability orientation and Z the control vector, the structural model is:

$TR = a1 \cdot DQ + \gamma 1' Z + \zeta 1; \quad GW = a2 \cdot DQ + \gamma 2' Z + \zeta 2;$

$INT = c' \cdot DQ + b1 \cdot TR + b2 \cdot GW + d1 \cdot FL + d2 \cdot SO + m1 \cdot (DQ \times FL) + m2 \cdot (DQ \times SO) + \gamma 3' Z + \zeta 3.$

The indirect effects are $a1 \times b1$ (via trust) and $a2 \times b2$ (via greenwashing risk); the total effect is $c = c' + a1b1 + a2b2$; and m1 and m2 are the moderation terms.

3.6 Ethical considerations

Participation was voluntary and anonymous, no financial account or trading information was collected, respondent names were removed before analysis and findings are reported only in aggregate.

4. Results and Findings

4.1 Data screening and sample

Table 4 records each screening decision and Figure 2 shows how the 104 responses reduce to the primary (n = 100) and robustness (n = 88) samples.

Table 4. Data screening summary

Screening step	n	Treatment
Responses received	104	–
Duplicate submissions	4	Same name and identical demographic profile as an earlier response; first submission kept
Primary analysis sample	100	Used for all main results
Straight-line responders (identical answer to all 14 items)	12	Kept in primary sample; removed in robustness sample
Robustness sample	88	Duplicates and straight-liners removed
Portfolio size = "Prefer not to say"	19	Set to missing; affects only models including portfolio size
Education = "CA intermediate" or "Professional"	2	Shown in the profile; left out of the ordinal education variable
"Not at all familiar" with ESG but item mean ≥ 4.0	2	Flagged as possible acquiescence; kept

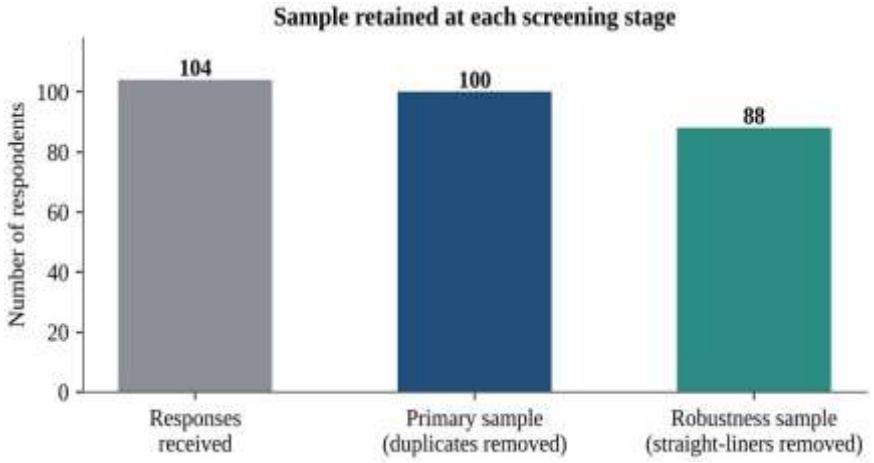


Figure 2. Responses retained at each screening stage

4.2 Respondent profile

The sample is young, well educated and mostly new to investing (Figures 3–8). Forty-one per cent of respondents are under 25, the gender split is almost even (51% female, 49% male), 60% hold at least a master's degree (48% master's, 12% doctorate), and 62% have invested for less than three years (45% for under one year). Portfolios are small: 47% report under ₹5 lakh, and 19% did not state portfolio size. Familiarity with ESG is

modest, with 43% not at all or only slightly familiar and 21% very or extremely familiar. The profile matches the target of individual investors but leans towards novices, so the findings should be read as the views of a young, educated and mostly inexperienced retail group.

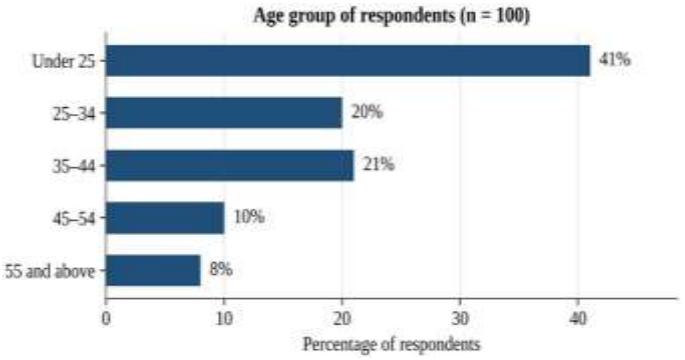


Figure 3. Age distribution of respondents (n = 100)

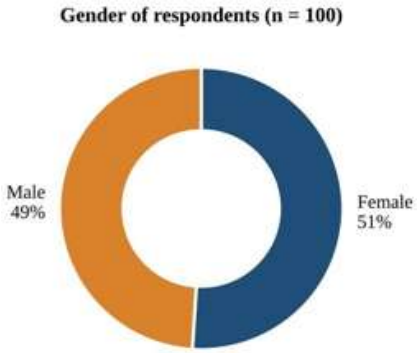


Figure 4. Gender of respondents (n = 100)

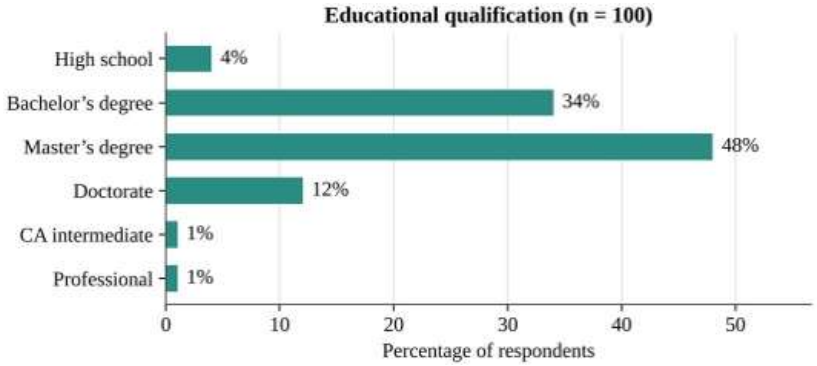


Figure 5. Educational qualification of respondents (n = 100)

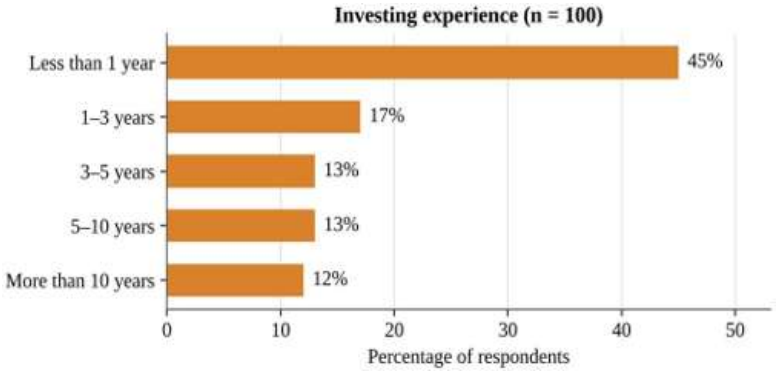


Figure 6. Investing experience of respondents (n = 100)

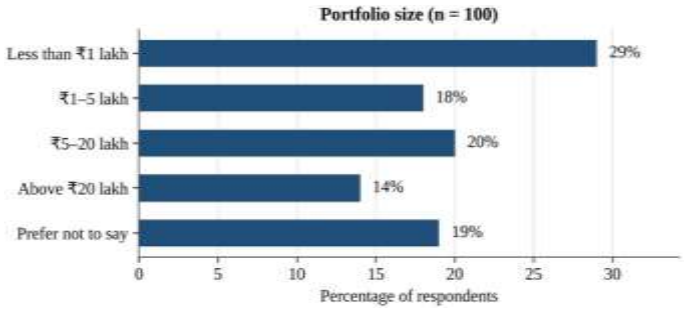


Figure 7. Portfolio size of respondents (n = 100)

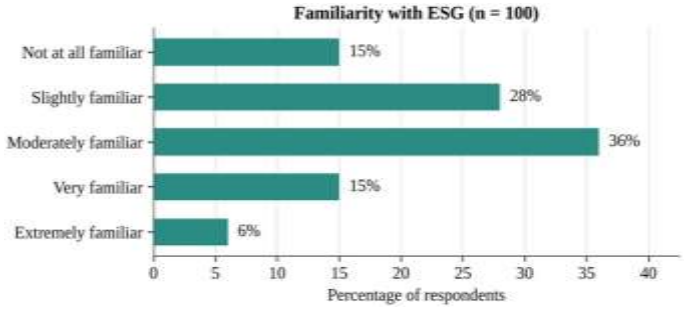


Figure 8. Familiarity of respondents with ESG (n = 100)

4.3 Descriptive statistics

Respondents lean positive on every item, but least so on the quality of ESG disclosure itself: item means range only from 3.40 to 3.73 (Table 5, Figure 9). Three patterns stand out. First, disclosure quality is the weakest area: only 42% agree that firms disclose relevant ESG information (Q7), and 49% agree that ESG information is easy to compare (Q9) and easy to find and understand (Q11), so these items, with Q16 (50%), are the only ones not reaching majority agreement. Second, greenwashing suspicion is common: 55% agree that some companies use ESG disclosure mainly for public relations, while 7% disagree. Third, stated intention is high: 56% would accept slightly lower returns for strong ESG performance (Q20) and 59% would choose the firm with better ESG disclosure (Q18), although these are stated intentions of largely inexperienced investors, not portfolio decisions.

Table 5. Item-level descriptive statistics (n = 100)

Item	Statement (shortened)	Construct	Mean	SD	% Dis.	% Neu.	% Agr.
Q7	Companies disclose ESG information relevant to their business	DQ	3.40	0.80	8	50	42
Q8	ESG disclosures are credible and trustworthy	Trust	3.58	0.75	5	40	55
Q9	ESG performance is easy to compare across companies	DQ	3.45	0.93	11	40	49
Q10	Disclosures give enough detail on positive and negative impacts	DQ	3.56	0.86	8	38	54
Q11	ESG information is easy to find and understand	DQ	3.40	0.93	14	37	49
Q12	Some companies use ESG disclosure mainly for PR	GW	3.56	0.82	7	38	55
Q13	Strong-ESG investing fits my values	SO	3.59	0.75	4	42	54

Item	Statement (shortened)	Construct	Mean	SD	% Dis.	% Neu.	% Agr.
Q14	People I value think I should invest sustainably	Norms	3.73	0.79	4	33	63
Q15	I can evaluate a company's ESG performance	ESG know.	3.58	0.87	8	34	58
Q16	I intend to invest in ESG funds/companies in 12 months	INT	3.51	0.94	12	38	50
Q17	I actively seek ESG disclosures before investing	Seeking	3.61	0.84	8	35	57
Q18	I would choose the firm with better ESG disclosure	INT	3.70	0.88	7	34	59
Q19	I plan to shift part of my portfolio to strong-ESG firms	INT	3.61	0.94	7	41	52
Q20	I would accept slightly lower returns for strong ESG	INT	3.62	0.96	8	36	56

Dis. = Strongly disagree + Disagree; Neu. = Neutral; Agr. = Agree + Strongly agree. DQ = disclosure quality; GW = greenwashing risk; SO = sustainability orientation; INT = intention.

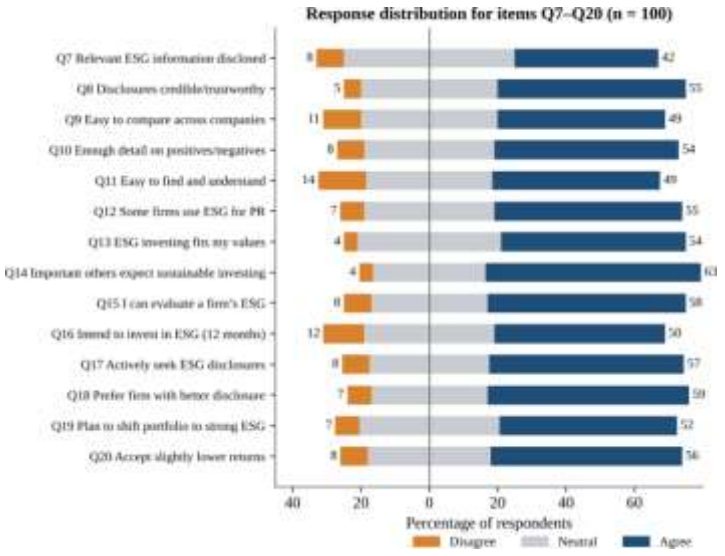


Figure 9. Response distribution for items Q7–Q20 (n = 100)

Table 6 gives construct-level scores. Disclosure quality has the lowest mean (3.45) and subjective norms the highest (3.73) (Figure 10). All constructs are negatively skewed and Shapiro–Wilk tests reject normality for each ($p < .05$), which is why rank correlations, robust standard errors and bootstrapped intervals are used.

Table 6. Construct-level descriptive statistics (n = 100)

Construct	Mean	SD	Median	Skewness	Shapiro–Wilk p
ESG disclosure quality (Q7, Q9, Q10, Q11)	3.45	0.71	3.50	−0.15	.005
Investor trust (Q8)	3.58	0.75	4.00	−0.27	< .001
Perceived greenwashing risk (Q12)	3.56	0.82	4.00	−0.47	< .001

Sustainability orientation (Q13)	3.59	0.75	4.00	−0.17	< .001
Subjective norms (Q14)	3.73	0.79	4.00	−0.35	< .001
ESG knowledge (Q15)	3.58	0.87	4.00	−0.67	< .001
Sustainable investment intention (Q16, Q18–Q20)	3.61	0.77	3.50	−0.07	.006
Seeking ESG disclosure (Q17)	3.61	0.84	4.00	−0.30	< .001

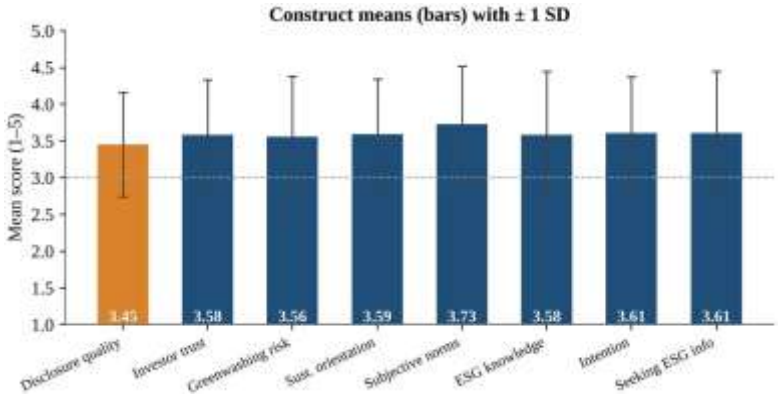


Figure 10. Construct means with standard deviations (error bars = ±1 SD)

4.4 Reliability, validity and common-method bias

Only the two multi-item scales can be assessed for reliability. Both exceed the usual thresholds (Table 7): α = 0.82 for disclosure quality and 0.84 for intention, composite reliability above 0.88 and AVE above 0.65. The heterotrait–monotrait ratio between the two is 0.72, below the 0.85 cut-off, and the square roots of AVE (0.81 and 0.83) exceed their correlation (0.61), supporting discriminant validity. Trust, greenwashing risk and sustainability orientation are single items, so no reliability or AVE can be computed.

Table 7. Reliability and convergent validity of multi-item scales

Scale	Items	Cronbach's α (95% CI)	Composite reliability	AVE
Disclosure quality (DQ)	Q7, Q9, Q10, Q11	0.82 (0.76–0.87)	0.88	0.66
Sustainable investment intention (INT)	Q16, Q18, Q19, Q20	0.84 (0.79–0.89)	0.89	0.68
DQ plus trust item	Q7–Q11	0.85	0.90	0.64
INT plus seeking item	Q16–Q20	0.87	0.91	0.67

Exploratory factor analysis on Q7–Q11 and Q16–Q20 was appropriate (KMO = 0.86; Bartlett's $\chi Z(45) = 537.3$, $p < .001$). Two components had eigenvalues above 1 (5.24 and 1.42; Figure 11) and explained 66.6% of variance, and the varimax solution separates disclosure items from intention items (Table 8). Two points follow. First, the single trust item (Q8) loads 0.83 on the disclosure component, so it behaves as a credibility indicator of disclosure quality, not as a separate construct, which is consistent with credibility being one of the quality dimensions but leaves little unique trust variance. Second, Q17 (seeking disclosures) loads with intention, and is therefore analysed separately.

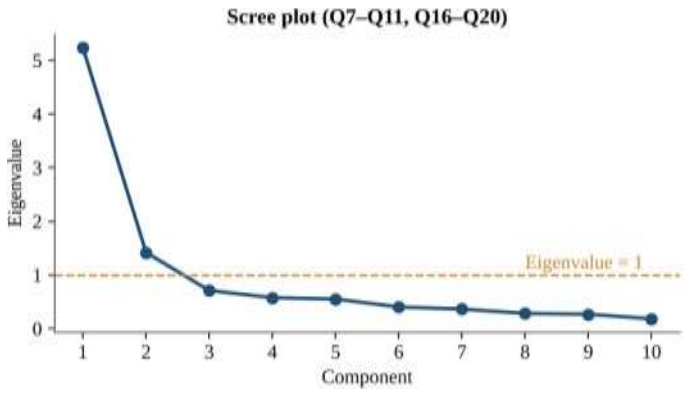


Figure 11. Scree plot of the exploratory factor analysis

Table 8. Varimax-rotated loadings (two components)

Item	Disclosure component	Intention component
Q7 Relevant information disclosed	**0.79**	0.19
Q8 Disclosures credible (trust)	**0.83**	0.12
Q9 Easy to compare	**0.75**	0.32
Q10 Enough detail, positive and negative	**0.80**	0.24
Q11 Easy to find and understand	**0.59**	0.43
Q16 Intend to invest in ESG	0.48	**0.59**
Q17 Seek ESG disclosures	0.31	**0.77**
Q18 Prefer better-disclosing firm	0.20	**0.79**
Q19 Plan to shift portfolio	0.16	**0.86**
Q20 Accept lower returns	0.19	**0.82**

Common-method bias cannot be ruled out because all constructs come from one questionnaire completed at one time. The first unrotated component accounts for 50.3% of the variance in the 14 items, and full-collinearity VIFs range from 1.72 to 3.52, with disclosure quality (3.52) above the 3.3 threshold. These figures do not prove bias but point to a general tendency to agree with statements, which is relevant to the greenwashing results below.

4.5 Correlation analysis

All constructs correlate positively and significantly (ρ = 0.31–0.71; Table 9, Figure 12), including pairs expected to move in opposite directions. Disclosure quality is related to trust (ρ = 0.61) and to intention (ρ = 0.59); trust is related to intention (ρ = 0.41); and intention is most strongly related to seeking ESG disclosures (ρ = 0.71), ESG knowledge (ρ = 0.57) and subjective norms (ρ = 0.51). Perceived greenwashing risk, expected to fall as quality rises, is instead positively related to disclosure quality (ρ = 0.51) and to intention (ρ = 0.40). Because it is positively related to every other construct, Q12 does not behave simply as the opposite of disclosure quality. Two explanations that the data cannot separate are a general tendency to agree (acquiescence) and a sensitisation effect, in which investors who use ESG information actively become more alert to exaggeration.

Table 9. Spearman correlation matrix (n = 100)

	DQ	Trust	Greenw.	Sust. or.	Norms	ESG kn.	Seeking
Trust	0.61***						
Greenwashing	0.51***	0.39***					
Sust. orientation	0.51***	0.40***	0.46***				
Subjective norms	0.49***	0.37***	0.49***	0.57***			
ESG knowledge	0.58***	0.40***	0.45***	0.35***	0.52***		
Seeking (Q17)	0.59***	0.35***	0.31**	0.42***	0.51***	0.68***	
Intention	0.59***	0.41***	0.40***	0.34***	0.51***	0.57***	0.71***

** p < .01; *** p < .001.

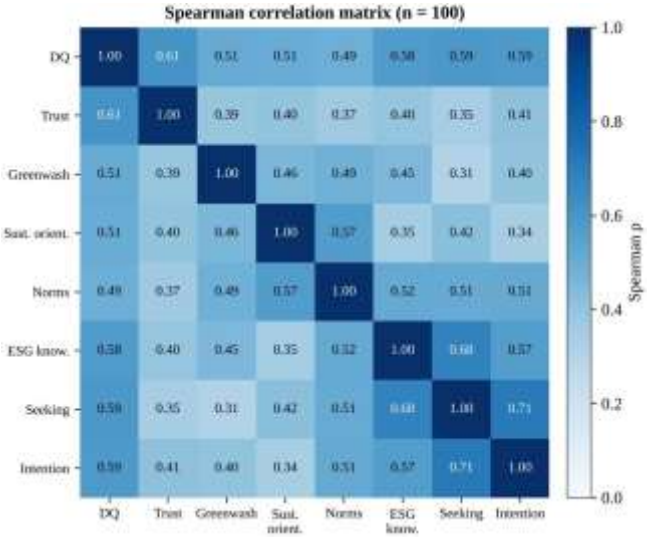


Figure 12. Heat map of Spearman correlations among constructs

4.6 Regression results: direct paths (H1, H2, H3, H5, H6)

Perceived disclosure quality significantly predicts intention (H1) and trust (H2). Neither trust nor greenwashing risk predicts intention once disclosure quality is in the model (H3, H6), and the greenwashing path (H5) is significant but opposite to the expected sign (Table 10).

Table 10. Direct-path regression results, OLS with HC3 standard errors (n = 100)

Hyp.	Path	B	95% CI	Std. β	p	R^2	Result
H1	DQ → Intention (total effect)	0.65	0.43 to 0.87	0.61	< .001	0.37	Supported
H2	DQ → Trust	0.72	0.54 to 0.90	0.68	< .001	0.46	Supported
H3	Trust → Intention (controlling DQ, GW)	−0.02	−0.28 to 0.23	−0.02	.854	0.37	Not supported
H5	DQ → Greenwashing risk	0.70	0.51 to 0.89	0.60	< .001	0.36	Significant, opposite sign
H6	Greenwashing → Intention (controlling DQ, trust)	0.08	−0.11 to 0.27	0.08	.420	0.37	Not supported

B = unstandardised coefficient on the 1–5 scale. The H3 and H6 rows come from one model with DQ, trust and greenwashing entered together (adjusted $R^2 = 0.35$; VIF 1.6–2.4).

H1. Each one-point increase in perceived disclosure quality is associated with a 0.65-point increase in intention, and quality alone explains 37% of the variance in intention. The effect remains significant with trust and greenwashing in the model (B = 0.61, 95% CI 0.31–0.92, $p < .001$) and is of medium size (Cohen's fZ = 0.22). Figure 13 shows the positive linear association. **H2 and H3.** Quality explains 46% of the variance in trust, but trust has no independent association with intention (B = −0.02, p = .854, fZ ≈ 0), consistent with its overlap with the disclosure items. **H5 and H6.** Contrary to expectation, investors who rate disclosure highly are more likely to agree that some firms use ESG disclosure for public relations (B = 0.70, $p < .001$); greenwashing risk does not predict intention (B = 0.08, p = .420). The acquiescence and sensitisation explanations in Section 4.5 apply.

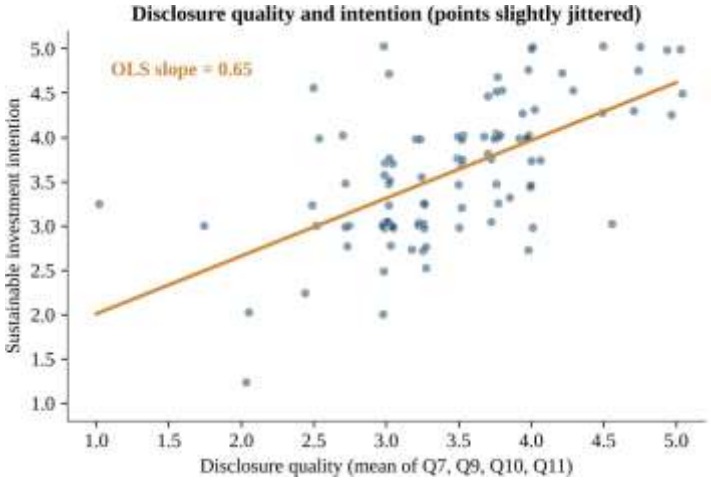


Figure 13. Scatter plot of disclosure quality and sustainable investment intention (points slightly jittered)

Attitude (Objective 2). Using Q13 as the attitude measure, disclosure quality strongly predicts attitude (B = 0.67, 95% CI 0.50–0.85, std. β = 0.64, RZ = 0.40, $p < .001$), but attitude does not predict intention once quality is included (B = 0.01, p = .960). **Controls.** Adding age, gender, education, experience and portfolio size (complete cases, n = 81) leaves the picture unchanged: disclosure quality remains significant (B = 0.58, p = .002) and no control is significant (all $p > .49$).

4.7 Mediation analysis (H4, H7)

Neither trust nor greenwashing risk mediates the effect of disclosure quality on intention: both bootstrapped indirect effects include zero, and about 94% of the total effect is direct (Table 11, Figures 14–15). With five controls the results are the same: indirect effects of −0.02 via trust (95% CI −0.21 to 0.15) and 0.07 via greenwashing (−0.06 to 0.27), and a direct effect of 0.58 (0.23 to 0.92). H4 and H7 are therefore not supported. The result means that trust and greenwashing risk, as measured by single items, add no explanatory pathway; it does not show that trust is unimportant, since trust overlaps heavily with disclosure quality in these data.

Table 11. Parallel mediation results, 5,000 bootstrap resamples (n = 100)

Effect	Estimate	95% bootstrap CI	Excludes zero?
a1: DQ → Trust	0.72	0.53 to 0.87	Yes
b1: Trust → Intention	−0.02	−0.28 to 0.20	No
H4: Indirect via trust (a1 × b1)	**−0.02**	**−0.20 to 0.15**	**No**
a2: DQ → Greenwashing risk	0.70	0.49 to 0.85	Yes
b2: Greenwashing risk → Intention	0.08	−0.09 to 0.29	No
H7: Indirect via greenwashing (a2 × b2)	**0.06**	**−0.06 to 0.21**	**No**

Total indirect effect	0.04	−0.18 to 0.24	No
Direct effect (c′)	0.61	0.32 to 0.92	Yes
Total effect (c)	0.65	0.46 to 0.87	Yes

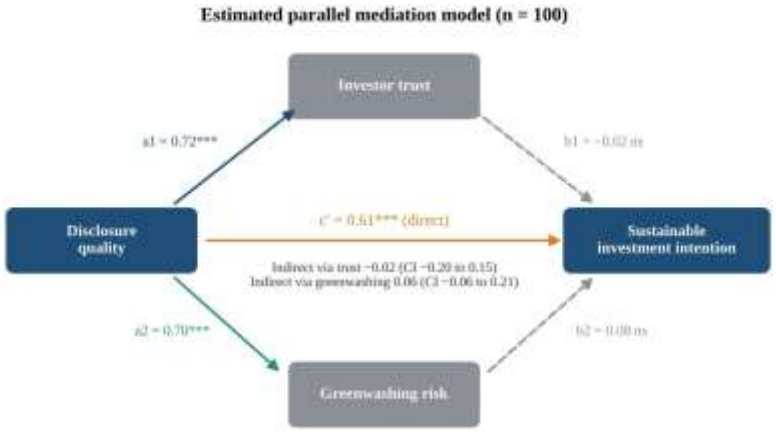


Figure 14. Estimated parallel mediation model

Solid arrows = significant paths; dashed arrows = non-significant paths.

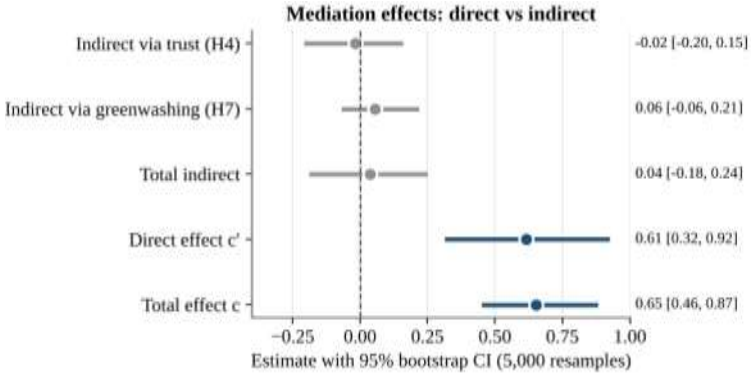


Figure 15. Direct, indirect and total effects with 95% bootstrap confidence intervals

4.8 Moderation analysis (H8, H9)

Neither ESG knowledge (the financial-literacy proxy) nor sustainability orientation moderates the effect of disclosure quality on intention (Table 12). The simple slopes are positive and significant at low, mean and high levels of both moderators and run almost parallel (Table 13, Figure 16). Estimating the full equation with trust, greenwashing, both moderators and both interactions gives the same conclusion (DQ × ESG knowledge: B = −0.03, p = .836; DQ × sustainability orientation: B = 0.04, p = .767), as does replacing ESG knowledge with investing experience (B = −0.02, p = .785) or ESG familiarity (B =

−0.07, p = .580).

Table 12. Moderation results (n = 100)

Hyp.	Interaction	B	95% CI	p	R^2 change	Result
H8	DQ × ESG knowledge (literacy proxy)	0.01	−0.18 to 0.20	.929	0.0001	Not supported
H9	DQ × Sustainability orientation	0.08	−0.20 to 0.36	.569	0.009	Not supported

Table 13. Simple slopes of disclosure quality on intention

Moderator	Low (−1 SD)	Mean	High (+1 SD)
ESG knowledge (Q15)	0.40 (p = .030)	0.40 (p = .002)	0.41 (p = .001)
Sustainability orientation (Q13)	0.59 (p = .005)	0.65 (p < .001)	0.71 (p < .001)

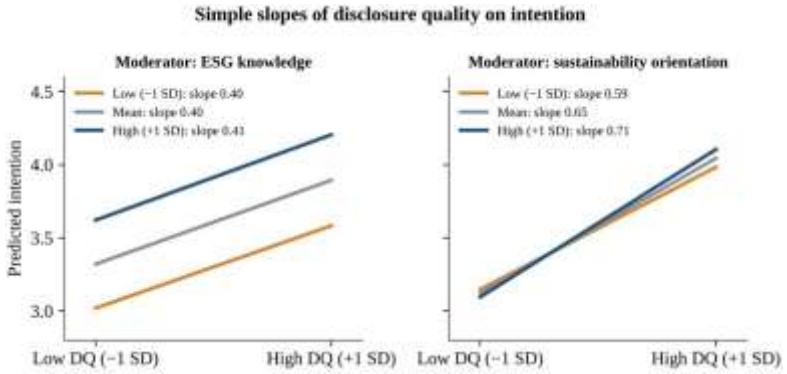


Figure 16. Simple slopes of disclosure quality on intention

Two cautions apply. The sample cannot detect small interactions (Section 3.2) and the confidence interval for H9 (−0.20 to 0.36) does not exclude a modest positive moderation, so non-significance is not evidence that moderation is absent. Moreover, ESG knowledge was a single self-assessment, not the objective literacy test planned, so H8 was not tested as intended. The moderators nonetheless differ as main effects: ESG knowledge is positively related to intention (B = 0.35, p < .001) and sustainability orientation is not (B = 0.02, p = .838).

4.9 Additional analyses

These analyses go beyond the nine hypotheses and are exploratory. Entering the four disclosure items separately shows that only ease of comparison (Q9) and ease of finding and understanding (Q11) predict intention, while relevance (Q7) and balance of detail (Q10) do not (Table 14, Figure 17; all VIFs below 2.1). This agrees with Park and Oh's (2022) argument that standardisation and comparability determine the effort needed to use ESG data. Because the items are single statements, the dimension-level analysis is tentative.

Table 14. Disclosure items as predictors of intention (n = 100)

Item	B	Std. β	p
Q7 Relevant information is disclosed	0.03	0.03	.813
Q9 ESG performance is easy to compare	0.26	0.31	< .001
Q10 Enough detail on positives and negatives	0.05	0.06	.565
Q11 Information is easy to find and understand	0.30	0.36	< .001

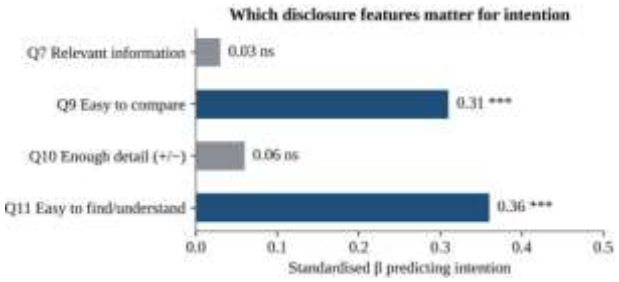


Figure 17. Standardised effects of the four disclosure items on intention

ns = not significant; *** p < .001.

Other predictors of intention. Adding ESG knowledge, subjective norms and sustainability orientation to the model with quality, trust and greenwashing raises RZ from 0.37 to 0.50 (adjusted RZ = 0.46). ESG knowledge is significant (B = 0.28, p = .010), whereas disclosure quality (B = 0.34, p = .058) and norms (B = 0.23, p = .074) are not, and quality and ESG knowledge carry equal weight (std. β = 0.32 each); the loss of significance for quality reflects shared variance (VIF = 3.3). A parsimonious planned-behaviour model of values, norms and perceived ability finds ESG knowledge (std. β = 0.43, p < .001) and norms (std. β = 0.28, p = .030) significant but values not (p = .552), so perceived control and social influence outweigh values. **Seeking ESG information.** Disclosure quality predicts actively seeking ESG disclosures before investing (Q17: B = 0.66, std. β = 0.56, RZ = 0.31, p < .001). **Willingness to accept lower returns (Q20).** This is correlated more strongly with disclosure quality (ρ = 0.51) and ESG knowledge (ρ = 0.48) than with trust (ρ = 0.34), greenwashing risk (ρ = 0.29) or sustainability orientation (ρ = 0.29; p < .01), and unrelated to portfolio size (ρ = −0.01, p = .900); in a regression with quality, trust and greenwashing, only quality is significant (B = 0.73, p < .001, RZ = 0.25).

4.10 Differences across investor groups

Gender, age, investing experience and portfolio size are not associated with disclosure ratings, greenwashing perception or intention (all p > .10). Women's mean intention is slightly higher than men's (3.68 vs. 3.54) but not significantly so (U = 1,162.5, p = .547), and intention does not differ by age (p = .361), experience (p = .674) or portfolio size (p = .883). Education and ESG familiarity, by contrast, differ markedly (Table 15, Figure 18). Kruskal–Wallis tests are significant for education on disclosure quality (H = 23.37, p < .001, εZ = 0.25), greenwashing risk (H = 13.64, p = .001, εZ = 0.15) and intention (H = 12.83, p = .002, εZ = 0.14), and for ESG familiarity on disclosure quality (H = 24.99, p < .001, εZ = 0.25), greenwashing risk (H = 13.94, p = .007, εZ = 0.14) and intention (H = 16.63, p = .002, εZ = 0.17). Doctorate holders differ from bachelor's and master's holders on all three measures; bachelor's and master's holders differ only on disclosure quality (p = .032); and the least familiar investors (intention 2.92) score significantly below the moderately, very and extremely familiar groups.

Table 15. Mean scores by education and ESG familiarity

Group	n	DQ	Greenwashing risk	Intention
Education				
Bachelor's degree	34	3.12	3.26	3.42
Master's degree	48	3.45	3.56	3.58
Doctorate	12	4.33	4.33	4.31
ESG familiarity				
Not at all familiar	15	2.97	3.13	2.92
Slightly familiar	28	3.31	3.39	3.56
Moderately familiar	36	3.38	3.56	3.71
Very familiar	15	4.00	4.13	3.92
Extremely familiar	6	4.42	4.00	4.21

Education excludes high school (n = 4) and CA intermediate / Professional (n = 2), too small to test.

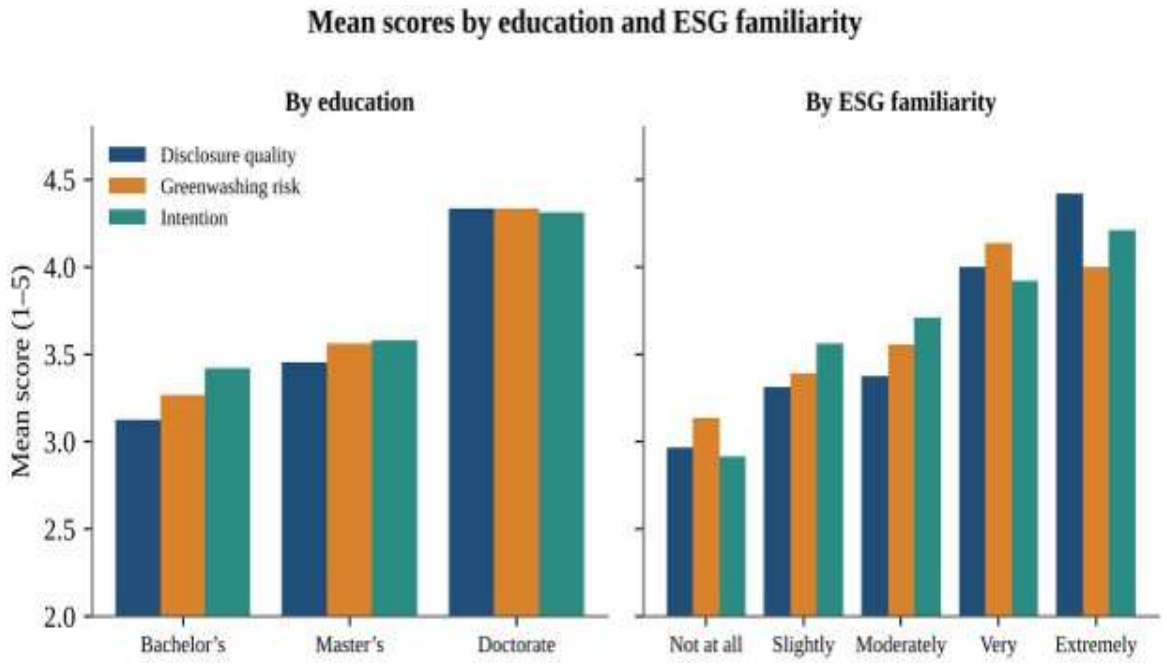


Figure 18. Mean scores by education and ESG familiarity

Two factors qualify this reading. The doctorate group is small (n = 12) and also has the highest greenwashing scores, so the pattern resembles a general level of agreement. The disclosure-quality effect nonetheless persists after adjusting for education and other controls (Section 4.6) and with ESG familiarity held at its mean (B = 0.57, p < .001). Chi-square tests show that ESG familiarity (low, moderate, high) is unrelated to investing experience ($\chi Z(4) = 6.61$, p = .158, Cramér's V = 0.18) or gender ($\chi Z(2) = 2.61$, p = .271, V = 0.16): years of investing do not translate into ESG familiarity.

4.11 Robustness checks and summary of hypothesis tests

Two of the nine hypotheses are supported, six are not, and one (H5) is significant in the opposite direction; the decision is the same for every hypothesis under all three specifications (Table 16, Figure 19): the primary sample (n = 100), a sample without the 12 straight-liners (n = 88), and a model with age, gender, experience, portfolio size and education as controls (complete cases, n = 81).

Table 16. Hypothesis decisions across three specifications

Hyp.	Exp.	Primary (n = 100)	Decision	No straight-liners (n = 88)	With controls (n = 81)
H1: DQ → Intention	+	B = 0.65, p < .001	**Supported**	0.58, p < .001	0.63, p < .001
H2: DQ → Trust	+	B = 0.72, p < .001	**Supported**	0.66, p < .001	0.66, p < .001
H3: Trust → Intention	+	B = −0.02, p = .854	Not supported	−0.06, p = .640	−0.03, p = .810
H4: Indirect via trust	+	−0.02 (−0.20 to 0.15)	Not supported	−0.04 (−0.22 to 0.12)	−0.02 (−0.21 to 0.16)
H5: DQ → Greenwashing	–	B = 0.70, p < .001	**Significant, opposite sign**	0.63, p < .001	0.66, p < .001
H6: Greenwashing → Intention	–	B = 0.08, p = .420	Not supported	0.05, p = .618	0.11, p = .365

H7: Indirect via greenwashing	+	0.06 (−0.06 to 0.21)	Not supported	0.03 (−0.08 to 0.17)	0.07 (−0.06 to 0.27)
H8: DQ × ESG knowledge	+	B = −0.03, p = .836	Not supported	−0.02, p = .883	0.04, p = .824
H9: DQ × Sust. orientation	+	B = 0.04, p = .767	Not supported	0.03, p = .780	0.00, p = .986

H3 and H6 come from a model with DQ, trust and greenwashing together; H8 and H9 from the full equation with both interactions. Expected sign for H7 is positive because it is the product of two expected negative paths.

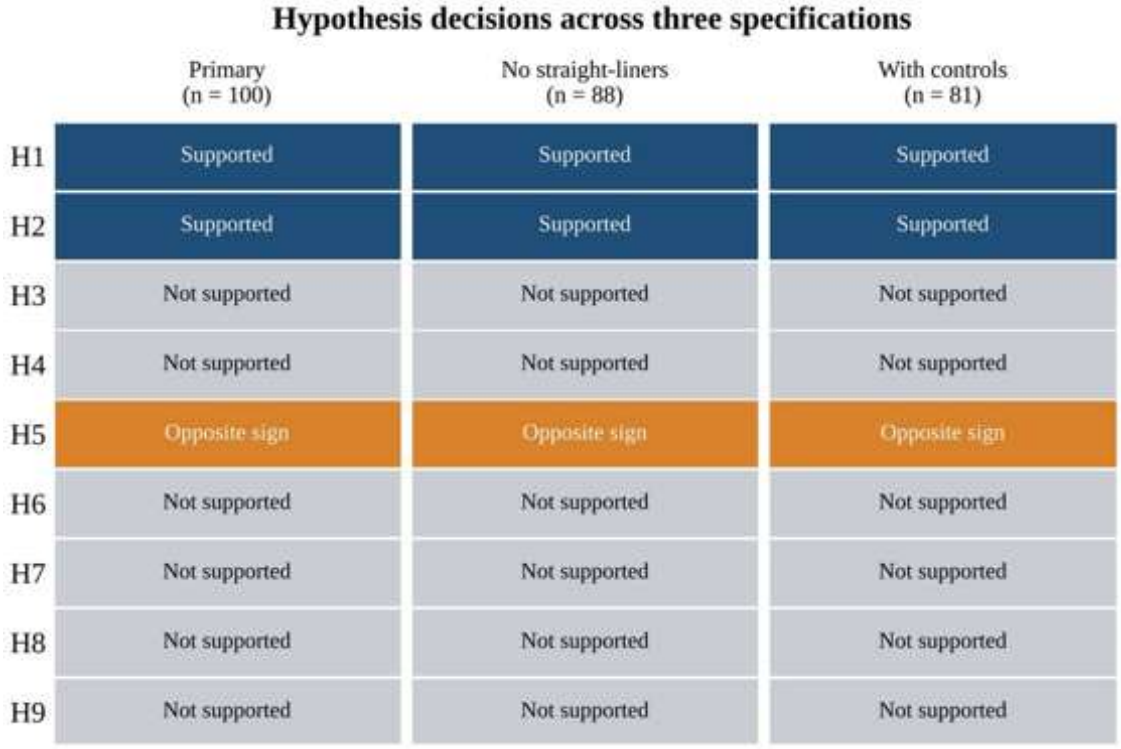


Figure 19. Hypothesis decisions across the three specifications

5. Discussion

5.1 Interpretation of the findings

The central result is that investors who see ESG disclosure as relevant, comparable, balanced and easy to use report stronger intentions to invest sustainably. The association is large for survey data (B = 0.65; 37% of variance), is unchanged by controls and by removing straight-liners, and is the only consistent result across the nine hypotheses. It also extends to related outcomes: perceived quality predicts attitude towards sustainable investing, seeking ESG disclosures before investing and willingness to accept slightly lower returns. This is what information-asymmetry and signalling arguments imply: when disclosure is perceived as usable and credible, uncertainty about whether an investment is genuinely sustainable falls and intention rises.

Which features of disclosure matter is also informative. Only comparability (std. $\beta = 0.31$) and ease of finding and understanding (std. $\beta = 0.36$) predict intention, whereas perceived relevance and balance of positive and negative information do not. Respondents rate these two features lowest: only 49% agree that ESG information is easy to compare and 49% that it is easy to find and understand. In UTAUT terms the finding points to effort expectancy: for novice investors, the effort of locating and comparing information may be the binding constraint. Because the items are single statements, this should be treated as a lead for further work, not a settled ranking of dimensions.

The second theme is capability. ESG knowledge predicts intention independently of disclosure quality, with equal weight in the extended model, and in a simple planned-behaviour model perceived ability and subjective norms outweigh personal values. Education and ESG familiarity separate investors, whereas years of investing do not produce familiarity ($p = .158$). Better disclosure alone is therefore unlikely to reach investors who do not feel able to evaluate it; intention is lowest (2.92) among the unfamiliar.

5.2 Comparison with previous studies

The positive quality–intention association agrees with experimental and survey-experimental evidence that ESG information affects retail decisions (Janz et al., 2025; Sanseverino et al., 2024) and with fund-flow evidence of responses to salient sustainability information (Hartzmark & Sussman, 2019). It does not contradict Moss et al. (2024), who find no effect of disclosure on actual retail trades: the present study measures perceptions and stated intentions, not trades, and a favourable perception of quality is a different thing from the existence of disclosure. The finding that intention is related to disclosure quality but, in this sample, not to personal values reflects the non-pecuniary motives documented by Riedl and Smeets (2017) and Hartzmark and Sussman (2019) only partly: willingness to accept lower returns rises with perceived quality and ESG knowledge more than with sustainability orientation, which suggests that motives of this kind are activated by information that investors consider usable.

The prominence of ESG knowledge and subjective norms is in line with planned-behaviour studies in which norms, self-efficacy or perceived control support ESG intention (Sesini et al., 2026; Lengyel & Harangozó, 2025), and with the capability argument in the financial-literacy literature (Lusardi & Mitchell, 2014; van Rooij et al., 2011). The low rating of comparability is consistent with the divergence among ESG ratings and the processing costs described by Berg et al. (2022) and Park and Oh (2022). One difference concerns demographics: Janz et al. (2025) find that age, education and experience are associated with lower reallocation after ESG information, whereas here education is positively related to quality ratings and intention and age and experience show no difference. The studies differ in design (an incentivised allocation experiment versus perceptions and intentions in a small, young, non-probability sample), so the discrepancy cannot be resolved with these data.

5.3 Explaining the unexpected results

Mediation. The absence of mediation by trust should not be read as showing that trust is irrelevant. The trust item loads 0.83 on the disclosure component, so it shares almost all its variance with disclosure quality, and as a single item it carries unknown measurement error that biases coefficients towards zero. The predicted pathway through trust ($a1 = 0.72$) is strong on the first leg; the second leg ($b1 = -0.02$) is where overlap with quality removes unique variance. Multi-item trust and greenwashing scales are needed for a fair test.

Greenwashing risk. The positive association between disclosure quality and perceived greenwashing risk, opposite to H5, is the most surprising result. Two explanations are consistent with the data but cannot be told apart. The first is response style: the first factor explains 50.3% of item variance, the full-collinearity VIF for quality is 3.52 and 12 respondents gave identical answers to all 14 items, so agreement with a statement such as "some companies use ESG disclosure mainly for PR" may follow from general agreement. The second is sensitisation: investors who engage with ESG information may be better at spotting exaggeration, so suspicion rises with engagement, as the positive links with ESG knowledge and with seeking disclosure ($\rho = 0.45$ and 0.31) would suggest. In either case, the result does not show that better disclosure causes greenwashing.

Moderation. The null interactions are weakly informative. With $n = 100$ only paths of about 0.25 or more can be detected, the confidence interval for H9 includes a modest positive effect, and H8 was tested with a self-rated ESG-knowledge proxy instead of an objective literacy test. The positive simple slopes at every moderator level show that the quality–intention link holds across investors of different knowledge and orientation, which is itself useful, but they do not show that these characteristics never matter. **Attitude.** Attitude (Q13) was strongly predicted by quality but did not add to intention; since Q13 is also the sustainability-orientation measure, its overlap with the other constructs ($\rho = 0.34$–0.57) may explain this.

5.4 Implications of the findings

Theoretical. The results support the view that disclosure quality is best understood as an investor-level perception, and that this perception relates strongly to intention. They do not confirm that trust and perceived greenwashing risk are empirically distinct mediators, since the single credibility item falls inside the disclosure-quality factor, in line with credibility being a dimension of quality. The positive quality–greenwashing association suggests that suspicion of greenwashing may accompany, not follow from, exposure to ESG information. In planned-behaviour terms, perceived control (ESG knowledge) and social influence were more predictive of intention than personal values. Practical and policy implications are set out in Section 6.4.

6. Conclusion

6.1 Summary of the study

The study asked whether individual investors who regard ESG disclosure as high quality are more willing to invest sustainably, and whether trust, perceived greenwashing risk, financial literacy and sustainability orientation shape that relationship. Using a cross-sectional survey of 100 individual investors in India (young, well educated and mostly new to investing), nine hypotheses were tested with robust regression, bootstrapped mediation and interaction models. Table 17 summarises the findings against the objectives and research questions.

Table 17. Findings by objective and research question

Objective / question	Finding	Evidence
Obj. 3 / RQ1: disclosure quality and intention	Large positive effect; quality alone explains 37% of variance in intention	B = 0.65, p < .001; fZ = 0.22
Obj. 1 / RQ2: disclosure quality and trust	Strong positive effect; 46% of variance in trust explained	B = 0.72, p < .001
Obj. 2: disclosure quality and attitude	Strong positive effect on attitude (Q13); attitude adds nothing to intention	B = 0.67, RZ = 0.40, p < .001
RQ3: disclosure quality and greenwashing risk	No reduction; risk is higher among those who rate disclosure highly	B = +0.70, p < .001
RQ4: mediation by trust and greenwashing risk	Neither mediates; about 94% of the total effect is direct	Indirect CIs include zero (Table 11)
Obj. 4 / RQ5: moderation by literacy and orientation	No moderation detected; low power for small interactions	p = .929 and .569 (Table 12)

6.2 Key conclusions

1. **Perceived disclosure quality is the strongest and most consistent correlate of sustainable investment intention in this sample.** It survives controls and exclusion of low-effort responses, which supports the information-asymmetry and signalling logic.

2. **Usability matters more than volume.** Disclosure is rated only moderately, and only comparability and ease of finding and understanding predict intention. Comparable and usable ESG information is likely to matter more than additional information.

3. **The proposed mechanisms were not demonstrated.** Trust and greenwashing risk did not mediate the effect, which should be read as a measurement limitation (single items, overlap with quality) and not as evidence against the importance of trust.

4. **Capability matters alongside information.** Investors who feel able to assess ESG performance report higher intention, and ESG familiarity and education separate investors, so improved disclosure may not reach less familiar investors by itself.

5. **The results are associations among a specific sample.** They come from a young, educated, largely inexperienced, non-probability sample at one point in time, and stated intention is not observed investment behaviour; they should not be generalised to all Indian retail investors.

Of the nine hypotheses, H1 and H2 were supported; H3, H4, H6, H7, H8 and H9 were not; and H5 was significant but opposite to the expected sign.

6.3 Contribution to the literature

The paper offers three contributions. It moves the focus from the availability of ESG information to how individual investors perceive its quality, and identifies comparability and ease of finding and understanding as the features most related to intention. It tests trust and greenwashing risk together as mediators for individual investors and shows, with transparent robustness checks, that single-item measures cannot separate them from disclosure quality, which defines what a better test requires. And it adds evidence from Indian individual investors, a group for which the literature is thin, showing that capability (ESG knowledge) and social influence relate to intention at least as strongly as personal values.

6.4 Practical and policy implications

Table 18 lists recommendations that the evidence in this sample can support. Two cautions apply: the recommendations on assurance and standardisation rest on the literature and on the comparability finding, not on a direct test of assurance, and all evidence is associational, so these steps are potential, not proven, means to raise retail engagement.

Table 18. Recommendations and their basis in the findings

For	Recommendation	Basis in the findings
Listed companies	Present ESG data in standard formats, year-on-year and with peer-comparable metrics	Comparability (Q9) predicts intention (std. $\beta = 0.31$); only 49% agree information is easy to compare
Listed companies	Publish short plain-language summaries alongside full reports, in one easy-to-find place	Ease of finding and understanding (Q11) predicts intention (std. $\beta = 0.36$)
Listed companies	Report negative impacts and missed targets together with achievements	55% suspect ESG disclosure is used for marketing; only 54% agree detail on positives and negatives is sufficient

Regulators and standard setters	Keep standardising metrics and publish retail-friendly summaries and comparison tools built on assured data	Comparability and understanding matter most; trust and quality are closely linked ($\rho = 0.61$)
Asset managers, platforms and advisers	Explain ESG funds in plain terms and assume low familiarity among new investors	43% are not at all or only slightly familiar; intention is lowest (2.92) among the unfamiliar
Educators and investor-education bodies	Teach how to read and compare ESG disclosures, not only what ESG means	ESG knowledge predicts intention independently (std. $\beta = 0.32$); years of investing do not bring familiarity ($p = .158$)
Individual investors	Compare ESG claims across firms and over time, and treat unsupported claims with caution	Greenwashing suspicion is common but did not reduce intention

On policy, comparability is addressed through standardisation. India's BRSR Core framework (SEBI, 2023) introduced assurance on a set of core sustainability indicators, extended in phases to the top 1,000 listed entities by FY 2026–27 according to SEBI's own statement (Singh, 2025). This study did not test the effect of assurance on perceptions, but because 55% of respondents believe ESG disclosure is used for marketing, getting standardised and assured data to retail investors in usable form is a relevant policy question.

6.5 Limitations

Seven limitations qualify the findings. (1) **Sample size:** 100 responses fall short of the 300 planned and detect only paths of about 0.25 or more, so the null interactions may be false negatives. (2) **Single-item measures:** trust, greenwashing risk and sustainability orientation each rest on one item, precluding reliability estimates and likely attenuating effects; PLS-SEM could not be used. (3) **Financial literacy** was not measured objectively; self-rated ESG knowledge was used, so H8 was not tested as intended.

(4) **Response style:** all items came from one questionnaire, the first factor explains 50.3% of variance, quality has a full-collinearity VIF of 3.52 and 12 respondents straight-lined, so correlations may be inflated and the greenwashing result may partly reflect acquiescence. (5) **Sampling:** the sample is non-probabilistic, young, highly educated and mostly new to investing, and the 12 doctorate holders strongly influence education results. (6) **Design:** a cross-sectional survey cannot show causation, and stated intention need not become investment. (7) **Screening:** there was no attention-check or investor-verification item, and investors with under a year of experience (45%) may have had limited exposure to ESG disclosures.

6.6 Scope for future research

- **Fuller measurement.** Use multi-item scales for trust, greenwashing risk and sustainability orientation and an objective financial-literacy test, with reverse-worded items and attention checks to limit agreement bias.
- **Larger, more experienced samples.** Reach at least 300 usable responses, including more experienced investors, so that interactions and PLS-SEM can be tested properly.
- **Experimental tests of mechanisms.** Vary comparability, assurance and the balance of positive and negative information to see whether these shift intention and perceived greenwashing.
- **Observed behaviour.** Link survey responses to actual holdings or fund choices, or follow the same investors over time.
- **Greenwashing perception.** Test whether suspicion rises with engagement with ESG information, which could explain the positive association found here.
- **Group comparisons.** Compare investors by ESG familiarity, education, region and platform or product

type.

In sum, among the 100 investors surveyed, the more comparable, understandable and credible they found ESG disclosure, the more strongly they intended to invest sustainably, and this held in every specification tested. Why this happens (through trust or greenwashing perceptions) and for whom (by literacy or values) could not be established with a short questionnaire and a small sample. The practical message is nonetheless straightforward: ESG information that is easy to compare and easy to understand matters, and its effect is likely to be greater when paired with efforts to build investors' ability to use it.

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