Proceedings of ICEMGD 2025 Symposium: The 4th International Conference on Applied Economics and Policy Studies
DOI: 10.54254/2754-1169/2025.BJ24760

Plain Language, Real Impact: Evidence from an ESG Readability Experiment in China

Yilin Shangguan[1*], Jiajun Che[2]

[1]University of Malaya, Kuala Lumpur, Malaysia
[2]Peking University, Beijing, China
**Corresponding Author. Email: sg.lost@foxmail.com*

Abstract. As ESG disclosure frameworks become increasingly standardized across jurisdictions, a growing policy concern is whether individual investors can actually interpret and act upon the information presented. This issue is particularly acute in emerging markets like China, where sustainability reports remain lengthy, jargon-heavy, and difficult to process for non-professional audiences. This study examines whether improving the linguistic readability of ESG disclosures affects investment-related perceptions and intentions among individual investors. We implement a between-subjects experiment involving 232 Chinese participants, randomly exposed to either a high-readability or low-readability version of an ESG text excerpt. Findings reveal that clearer wording significantly enhances perceived informativeness, moral alignment, and investment intention. Notably, while prior literature suggests that cognitive and affective mechanisms should mediate such effects, we observe a direct impact of readability on intention without sequential mediation. The results offer both theoretical insights into investor cognition under linguistic constraints and practical implications for regulatory bodies seeking to reform ESG communication standards through plain-language mandates.

Keywords: ESG disclosure, readability, individual investors, investment intention, behavioural experiment

1. Introduction

Environmental, Social, and Governance (ESG) disclosure has become an essential part of corporate transparency, with jurisdictions like the EU and China mandating sustainability-related reporting. While institutional investors often rely on ESG ratings, individual investors—especially in emerging markets like China—must interpret these disclosures on their own. However, ESG reports are frequently dense and jargon-laden, raising concerns about whether non-professionals can meaningfully engage with the content.

Although prior studies have explored the financial impact of ESG disclosure on firm performance, few have examined the behavioral barriers posed by textual complexity. Most assume readers process ESG reports uniformly, overlooking the role of readability as a key cognitive factor.

DOI: 10.54254/2754-1169/2025.BJ24760

According to behavioral economics, clearer language enhances processing fluency, trust, and decision confidence.

This study addresses this gap by testing whether linguistic readability affects investment-related perceptions and intentions. Using a between-subjects experiment with Chinese individual investors, we randomly expose participants to high- or low-readability versions of ESG disclosure excerpts. We then assess perceived informativeness, moral alignment, and investment intention. By isolating readability as a causal variable, this research contributes to behavioral ESG literature and provides practical implications for improving ESG communication standards in China.

2. Literature review

2.1. Readability as a behavioral mechanism

As ESG reporting becomes institutionalized, how disclosures are written is gaining attention alongside what is reported. Readability—defined as the clarity and cognitive accessibility of text—is especially important for individual investors in emerging markets, where reports remain dense and unstandardized [1]. China's principle-based 2024 ESG disclosure guidelines lack specific readability requirements, leaving many sustainability reports difficult to understand.

Research shows that lower readability is linked to reduced investor trust [2], higher cost of capital [3], and increased earnings management [1]. Yet readability is often treated as an after-the-fact outcome rather than a design feature that shapes investor behavior. [4] This study reframes it as a behavioral intervention that can improve decision-making by enhancing information processing.

2.2. Cognitive and affective pathways

To explain how readability may influence ESG-related decisions, we propose a dual-pathway model. The cognitive pathway suggests that clearer text reduces processing burden and enhances perceived informativeness [2]. The affective pathway builds on moral utility theory, where readable ESG achievements elicit emotional alignment or "warm glow," increasing willingness to invest [5]. Salient and simple cues may also activate intuitive responses among non-professional investors [6]. This theoretical framing suggests that readability can shape both how investors understand ESG and how they emotionally respond to it.

2.3. Empirical gaps and contribution

While readability is a recognized concept, its behavioral effects remain underexplored. Most prior studies focus on institutional investors or treat ESG language as static. For instance, Reference [7] study ESG preference elicitation but ignore textual complexity; Reference [8] explore ESG news tone, not linguistic structure.To our knowledge, no published study tests the causal effect of ESG readability on individual investor decisions in China. This gap is pressing, as ESG adoption grows and regulators shift toward rule-based disclosures. Our study addresses this gap through a controlled experiment with 232 Chinese investors, isolating readability as a treatment and grounding its influence in behavioral theory. The findings contribute to ESG communication research and offer design-based solutions to support sustainable finance at the retail level.

DOI: 10.54254/2754-1169/2025.BJ24760

2.4. Hypotheses

Drawing on the dual-pathway behavioral framework established in the preceding section, this study theorizes that ESG disclosure readability influences investor decision-making through both cognitive and affective routes. The cognitive pathway emphasizes the role of perceived informativeness, while the affective pathway highlights the alignment of ESG messages with investors' moral values. Accordingly, we propose the following hypotheses:

H1: High readability ESG disclosures will lead to higher levels of perceived informativeness.

H2: High readability ESG disclosures will lead to higher levels of perceived moral alignment.

H3: High readability ESG disclosures will lead to higher levels of investment intention.

These hypotheses allow us to test not only the direct impact of textual clarity on investment decisions, but also the potential mediating roles of perceived informativeness and moral alignment in forming ESG-related intentions.

3. Methodology

3.1. Research design

This study employs a between-subjects experimental design to identify the causal effect of ESG disclosure readability on individual investors' decision intentions. Participants are randomly assigned to one of two conditions: high readability or low readability. After reading the assigned disclosure excerpt, they complete a post-treatment survey measuring perceived informativeness, moral alignment, and investment intention. The random assignment and semantic equivalence of texts (excluding readability manipulations) enhance internal validity while maintaining a streamlined design suitable for empirical testing.

3.2. Materials, participants, and procedure

We adapted ESG disclosure excerpts from 2024 sustainability reports of Chinese A-share manufacturing firms to create two versions differing in readability. The high-readability version featured short sentences, familiar vocabulary, and active voice (Flesch–Kincaid grade < 9), while the low-readability version employed complex syntax, ESG-specific jargon, and passive voice (grade > 14). Both versions were matched for content and length to ensure semantic equivalence. Readability scores were validated using the Chinese Readability Index Explorer (CRIE 4.0), and a pilot test ($n = 30$) confirmed the perceptual manipulation ($t = 8.27$, $p < .001$).

We recruited 240 non-professional individual investors via the Credamo platform, applying stratified quotas for age, gender, and education. Participants first gave informed consent, read a randomly assigned ESG text, and completed a post-treatment survey. Each received a small monetary reward. After excluding inattentive responses through embedded checks, the final sample consisted of 232 valid cases (high-readability group = 115; low-readability group = 117). The median task duration was 8.4 minutes.

3.3. Measures

All constructs were measured using five-point Likert scales (1 = strongly disagree, 5 = strongly agree).

Perceived informativeness was assessed using three items adapted from Hales et al. (2016) ($\alpha = 0.88$).

Moral alignment was measured by four items based on Hartzmark and Sussman (2019) (α = 0.91).

Investment intention was captured via three items derived from the Theory of Planned Behavior (Ajzen, 1991) (α = 0.86).

Control variables included age, gender, education, annual income, ESG familiarity, and stock-market experience. Exploratory factor analysis supported the three-factor structure (KMO = 0.88; Bartlett's test $p < 0.001$), validating the measurement model.

3.4. Data analysis

To examine mean differences between readability conditions, independent-samples t-tests were conducted for all dependent variables. Sequential mediation was tested using Model 6 of Hayes' PROCESS macro, with 5,000 bootstrap resamples generating bias-corrected confidence intervals. The proposed causal pathway—readability → perceived informativeness → moral alignment → investment intention—was modeled as a dual-channel mechanism. Common-method bias was assessed using Harman's single-factor test, with the largest extracted factor accounting for 29% of total variance (below the 40% threshold). All statistical analyses were performed using SPSS version 29.

4. Results

4.1. Preliminary analyses

Descriptive statistics for the three key dependent variables—perceived informativeness, moral alignment, and investment intention—are presented in Table 1. Across all constructs, participants in the high-readability condition (n = 115) reported higher scores than those in the low-readability group (n = 117). Specifically, the high-readability group scored significantly higher in perceived informativeness (M = 3.96, SD = 0.36 vs. M = 3.55, SD = 0.39), moral alignment (M = 3.88 vs. 3.21), and investment intention (M = 3.90 vs. 3.17), suggesting initial support for readability effects on both cognitive and affective dimensions of investment evaluation.

Table 1. Descriptive statistics by experimental condition

Variable	Readability Group	N	Mean (M)	Std. Deviation (SD)
Perceived Informativeness	High Readability	115	3.96	0.36
	Low Readability	117	3.55	0.39
Moral Alignment	High Readability	115	3.88	0.35
	Low Readability	117	3.21	0.39
Investment Intention	High Readability	115	3.90	0.41
	Low Readability	117	3.17	0.49

4.2. Hypothesis testing

4.2.1. Main results

Independent-samples t-tests confirmed that participants exposed to high-readability ESG disclosures reported significantly higher scores across all dependent variables. Specifically, high readability

DOI: 10.54254/2754-1169/2025.BJ24760

increased perceived informativeness ($t(230) = 8.34$, $p < .001$), moral alignment ($t(230) = 14.20$, $p < .001$), and investment intention ($t(230) = 12.41$, $p < .001$), supporting Hypotheses H1 to H3.

To test the proposed dual-path mediation model (readability → informativeness → moral alignment → investment intention), we conducted sequential OLS regressions using Hayes' PROCESS macro (Model 6). As summarized in Table 2, readability significantly predicted perceived informativeness ($\beta = 0.410$, $p < .001$) and moral alignment ($\beta = 0.662$, $p < .001$). However, perceived informativeness did not predict either moral alignment ($\beta = 0.012$, $p = 0.847$) or investment intention ($\beta = 0.026$, $p = 0.746$). Similarly, moral alignment did not significantly predict investment intention ($\beta = –0.013$, $p = 0.880$).

Importantly, the direct effect of readability on investment intention remained strong and significant ($\beta = 0.737$, $p < .001$), indicating a primarily direct pathway. These findings suggest that simplified ESG language influences investment decisions through a heuristic process rather than via stepwise cognitive or affective mediation.

Table 2. Mediation model coefficients (sequential path analysis)

Path	β	p-value	Significance
Readability → Informativeness	0.410	< .001	***
Informativeness → Moral Alignment	0.012	0.847	n.s.
Readability → Moral Alignment	0.662	< .001	***
Informativeness → Investment Intention	0.026	0.746	n.s.
Moral Alignment → Investment Intention	-0.013	0.880	n.s.
Readability → Investment Intention	0.737	< .001	***

4.2.2. Alternative model: parallel mediation

We also tested a parallel mediation structure with informativeness and moral alignment as simultaneous mediators. As shown in Table 4, neither mediator remained significant when controlling for the direct effect of readability, further confirming the dominance of a direct, heuristic-driven effect.

4.3. Robustness checks

Harman's single-factor test suggested minimal common method variance; the first factor accounted for only 28.7% of total variance (below the 40% threshold). Subgroup analyses by gender and ESG familiarity showed no meaningful interaction effects, indicating that the readability effect is stable across different investor profiles.

5. Summary and discussion

This study provides empirical evidence that the linguistic readability of ESG disclosures significantly shapes individual investors' perceptions and behavioral intentions. Participants exposed to high-readability texts reported greater perceived informativeness, moral alignment, and investment intention. These findings underscore the role of textual clarity as a behavioral lever in ESG communication.

Although a dual-pathway model was proposed—suggesting that informativeness and moral alignment would mediate the readability–intention link—the empirical results did not support such sequential mediation. Instead, the effect of readability was primarily direct, indicating that

DOI: 10.54254/2754-1169/2025.BJ24760

simplified language may trigger intuitive investment decisions without extensive cognitive or affective processing.

These results contribute to the literature by isolating readability as a first-order behavioral variable in sustainable finance. Rather than focusing solely on ESG ratings or disclosures' substantive content, this study emphasizes the importance of how information is framed and delivered—especially in retail investment contexts marked by limited time and attention.

For regulators, the findings suggest that ESG disclosure standards should incorporate readability metrics to improve accessibility. In China, where current guidelines are principle-based, adopting linguistically simplified templates could enhance retail investor engagement. For firms, plain-language strategies—such as using shorter sentences and avoiding technical jargon—may increase transparency and trust at little cost.

Several limitations remain. The study measured intention rather than actual investment behavior and relied on simplified ESG texts in a controlled setting. Future research could test readability effects in real-world scenarios or explore interactions with other language features such as tone or narrative structure. Additionally, expanding beyond financially literate online participants could improve generalizability.

References

[1] Ren, B. , & Yao, S. (2024). Earnings management and readability of CSR report: Evidence from China. *PLoS ONE*, 19(4), e0301187. https: //doi. org/10. 1371/journal. pone. 0301187

[2] Bonsall, S. B. , Leone, A. J. , Miller, B. P. , & Rennekamp, K. (2017). A plain English measure of financial reporting readability. *Journal of Accounting and Economics*, 63(2–3), 329–357. https: //doi. org/10. 1016/j. jacceco. 2017. 03. 002

[3] Rjiba, H. , Saadi, S. , Boubaker, S. , & Ding, X. (2021). Annual report readability and the cost of equity capital. *Journal of Corporate Finance*, 67, 101902. https: //doi. org/10. 1016/j. jcorpfin. 2021. 101902

[4] Orts, E. W. (2023, February 6). Does ESG Information Affect Individual Investors' PortfolioChoices? *CLS Blue Sky Blog*. https: //clsbluesky. law. columbia. edu/2023/02/07/does-esg-information-affect-individual-investors-portfolio-choices/?utm_source=chatgpt. com

[5] Bénabou, R. , Falk, A. , & Tirole, J. (2018). Narratives, imperatives, and moral reasoning. *SSRN Electronic Journal*. https: //doi. org/10. 2139/ssrn. 3217481

[6] Barber, B. M. , & Odean, T. (2007). All that glitters: the effect of attention and news on the buying behavior of individual and institutional investors. *Review of Financial Studies*, 21(2), 785–818. https: //doi. org/10. 1093/rfs/hhm079

[7] Seifert, M. , Spitzer, F. , Haeckl, S. , Gaudeul, A. , Kirchler, E. , Palan, S. , & Gangl, K. (2024). Can information provision and preference elicitation promote ESG investments? Evidence from a large, incentivized online experiment. *Journal of Banking & Finance*, 161, 107114. https: //doi. org/10. 1016/j. jbankfin. 2024. 107114

[8] Yu, H. &. L. C. &. L. Z. &. W. H. (2023). News-based ESG sentiment and stock price crash risk. ideas. *repec. org*. https: //ideas. repec. org/a/eee/finana/v88y2023ics105752192300162x. html?utm_source=chatgpt. com