ESG Perceptions: Investigating Investor Motivations and Characteristics

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Abstract

Integrating ESG factors into investment strategies is a rapidly growing trend, but less is known about how investors value these ESG factors. The characteristics of investors prioritizing ESG in their decisions still need to be recognized. This study uses the value–belief–norm conceptual framework to investigate the relationship between socially responsible motivation and the perceived importance of ESG when making investment decisions among investors in the United States. This study also explores the correlation among financial, sociodemographic, human capital, and economic variables and the perceived importance of ESG factors. Analyzing data from the 2021 National Financial Capability Study (NFCS) State-by-State and Investor Survey through hierarchical regressions and segmentation analyses revealed that socially responsible motivation was significantly and positively linked to the likelihood of assigning greater importance to ESG factors. Variables such as objective and subjective investment knowledge, investment experience years, and information dependence on financial professionals emerged as significant factors. The segment analysis, which was differentiated based on the level of socially responsible motivation, further highlighted that financial-related variables are significantly associated with the importance placed on ESG factors.

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Introduction

Environmental, social, and governance (ESG) investing has gained significant attention recently. At the start of 2022, institutional investors, money managers, and community investment institutions that incorporate environmental, social, and governance considerations into investment decisions and portfolio selections held approximately $7.6 trillion in US-domicile assets (US SIF Foundation, 2022). Based on the report from the FINRA Foundation, younger investors exhibited a far higher inclination than older respondents to invest for motives other than long-term profitability (Lin et al., 2022). Specifically, younger respondents invested for social responsibility, entertainment, and social activity reasons at twice the proportions of those aged 55 and above (Lin et al., 2022). Current literature conducted on ESG investing has focused on the relationship between ESG factors and corporate financial performance (Friede et al., 2015; Kim & Li, 2021), risk and opportunity management, and

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the relative importance of each criterion among institutional investors (Park & Jang, 2021). Limited attention has been devoted to how individual investors adopt ESG, and even fewer studies have been conducted on the driving force behind investors' perspectives on ESG factors when making investment decisions.

This study aims to investigate the role of socially responsible motivation and financial profile variables such as objective and subjective investment knowledge, years of investment experience, information dependence on financial professionals, and risk tolerance on the valuation of ESG criteria in the investment decision process. Meanwhile, this study also controls the role of sociodemographic characteristics, human capital attributes, and economic variables on investors' perceptions of the importance of ESG factors, aiming to provide a comprehensive investigation into the multifaceted dynamics shaping the integration of ESG considerations into investment strategies. The findings indicate that socially responsible motivation and financial variables play significant roles. This study represents an early attempt to make a valuable contribution to the existing body of literature by exploring variables connected to the prioritization of ESG factors among individual investors. The paper seeks to fill the gap in understanding the determinants of investors' perspectives on ESG in the context of their decision-making, targeting an area that remains underexplored despite its growing importance in the way portfolios are managed. Practical implications for financial planners, financial institutions, and policymakers are also discussed.

Conceptual Framework and Literature Review

Overview of ESG

ESG is a collection of standards that are essential for responsible investors to evaluate an organization/company's performance in terms of environmental impact, social responsibility, and governance attributes. Instead of exclusively prioritizing financial factors, ESG investing involves the incorporation of environmental, social, and governance considerations when making investment decisions (Mottola et al., 2022). Based on the international framework of ESG factors, environmental factors include greenhouse gas emissions, energy use and efficiency, air and water pollution, waste management, the effect on biodiversity, and the innovation of eco-friendly new products. Social factors include the protection of customer privacy and workforce development, the prevention of child and forced labor, worker and consumer safety, diversity, antidiscrimination practices, poverty's impact on the community, ethical supply chain management, and safeguarding customer information. Governance factors include conduct codes, accountability and transparency procedures, executive compensation, board composition and diversity, antibribery and corruption regulations, stakeholder involvement, and shareholder rights (European Banking Authority, 2021). Hence, adopting ESG as an investment principle reflects a philosophical stance that seeks to promote holistic and sustainable development in society. However, based on the current literature, there is no commonly agreed-upon standard for assessing which companies are ESG-compliant, resulting in a lack of consistency in ESG investing (Plastun et al., 2019).

Importance of ESG Investing

Global ESG-related asset holdings surpassed $30 trillion as of 2022 and are anticipated to exceed $40 trillion by 2030 (Bloomberg, 2024). The current state of study on the integration of ESG information by individual investors is inadequate despite the increasing interest of these investors in ESG investment. A recent study pointed out that individual investors, on average, anticipate that the monetary returns on ESG will be lower than those of the broader equity market over a 10-year period (Giglio et al., 2023). However, when adopting a broader definition of return that includes nonmonetary components, holding stocks in companies with strong ESG ratings could benefit individual investors who value social responsibility in their total return and profit nonfinancially (Cornell, 2021). ESG investing, when considering the risk associated with holding investments with high ESG ratings, can potentially serve as a hedge against unforeseen environmental legislation and the impact of climate-related events (Cornell, 2021).

Potentially, investors may perceive the reduced expected returns as a well-rounded result stemming from the attractive hedging attributes of ESG stocks in mitigating potential future climate disasters or their advantageous nonfinancial attributes for investors with ethical concerns (Giglio et al., 2023). For example, during the COVID-19 pandemic, funds with higher ESG ratings exhibited a capacity to outperform other funds (Pisani & Russo, 2021). Similarly, Cerqueti et al. (2021) found that, although ESG funds generate lower returns outside of crises, they exhibit superior performance compared with conventional funds in times of turmoil. Lee et al. (2020) also provided evidence that investment strategies involving portfolios with high ESG ratings tend to perform better than those comprising portfolios with lower ESG ratings. Investors are generally prepared to pay a higher fee annually for funds with an ESG mandate over identical funds lacking such a mandate, indicating that investors anticipate ESG investments to generate competitive returns (Baker et al., 2022). Investing in ESG not only aligns with investors' values but also could generate competitive profits and make a beneficial impact on the environment and society.

ESG factors can be indicative of a company's financial health, ESG disclosure influences the financial, operational, and market performance measures of S&P 500-listed firms in the United States in a positive way, including return on assets (ROA), return on equity (ROE), and Tobin's Q (Alareeni & Hamdan, 2020). Firms characterized by high financial leverage and substantial assets were found to be more likely to disclose information pertaining to corporate governance, environmental matters, and social responsibility (Alareeni & Hamdan, 2020). Similarly, Kim and Li (2021) discovered that ESG factors positively influence the profitability of businesses, with this effect being more pronounced for larger companies. In general, the social dimensions of ESG factors have the most significant and positive influence on a company's credit rating, whereas the environmental dimensions have the opposite effect.

The demand for ESG integration in financial planning is increasing. ESG investment has the potential to boost investors' satisfaction by aligning their financial goals with their own values. With the growing focus on ESG management, investors actively seek companies aligning with their preferred ESG criteria. For example, due to the development of new laws and regulations focused on ESG criteria in various countries, many European sovereign wealth funds and pension funds now have an obligation to provide information on their ESG practices in response to the growing need (Park & Jang, 2021). Aligning investment decisions with ESG factors is consistent with long-term financial planning objectives, including but not limited to fostering sustainable growth, generating ethical wealth, and contributing positively to society (Giglio et al., 2023). Additionally, investing in ESG can potentially enhance investors' long-term financial well-being in a volatile pandemic market (Mavlutova et al., 2021).

Value-Belief-Norm Theory and ESG

In examining the factors associated with the prioritization of ESG criteria in the investment decision-making process, this study is inspired by the value–belief–norm (VBN) theory. Stern et al. (1999) introduced the VBN framework, which establishes the relationships among individual values, beliefs, and ethical norms. According to this theory, deeply held personal values can have a direct impact on one's beliefs. These beliefs shape attitudes and behaviors that are consistent with an individual's values and beliefs. While VBN theory is traditionally applied to explain pro-environmental behavior, its principles can be extended to the domain of consumer purchasing behaviors (López-Mosquera & Sánchez, 2012), consumer innovation adoption behaviors (Jansson et al., 2011), and sustainable tourism (Lind et al., 2015). These applications highlight the theory's relevance in analyzing consumer behaviors and perceptions related to social and environmental concerns, which can be applied to investment perspectives and behaviors. This study proposes that individuals whose personal values align with socially responsible investment motivations may exhibit a VBN orientation, thus fostering a sense of moral obligation that is reflected in a higher tendency to consider integrating environmental, social, and governance factors in their investment decisions.

Therefore, socially responsible investment motivation can manifest in the perceived importance of these ESG factors when making investment decisions.

The research found that political or social preferences have an influence on investment decisions. Investors' preference to choose particular investment options is strongly associated with their investment motivation, especially in socially responsible investing. For example, Delmas and Blass (2010) emphasize the significance of environmental and social preferences in choosing or avoiding company investments. Investors who recognize investing opportunities that align with their personal values are far more likely to invest in socially responsible investment products, thus underscoring personal value on investment preference (Bauer & Smeets, 2015). Previous research has also shown that ESG investors' portfolio decisions are influenced by their opinions about ESG returns, motives for investing in ESG, and concerns about climate change (Giglio et al., 2023). Investors pay increasing attention to socially responsible investing (Cucinelli & Soana, 2023), and the majority of individual investors who invest in ESG mutual funds base their investment decisions primarily on ethical considerations, highlighting the pivotal role that personal values play in shaping their financial choices (Giglio et al., 2023). The study incorporates social responsibility motivation variables to identify whether investors are driven by the desire to make a difference in the world, support values they care about, and be socially responsible. This study hypothesizes that:

H_1: Investors motivated by social responsibility are more likely to rate ESG factors as more important in their investment decisions.

Other Determinants of ESG Investing

Previous research highlights the role of past financial knowledge to individuals' ESG investing practices. International studies have identified financial knowledge as one of the most important determinants for engaging in sustainable investments (Cucinelli & Soana, 2023). In particular, the existing body of literature concerning socially responsible investment is predominately based on objective financial knowledge. Objective financial knowledge positively and substantially influences the intent to pursue sustainable investments and a strong preference for socially responsible financial intermediaries (Cucinelli & Soana, 2023; Kar & Patro, 2024). Conversely, Bauer and Smeets (2015) employed a single-item measure of self-assessed investment knowledge. They noted a positive correlation between subjective financial knowledge and non-socially responsible investment accounts among Netherlands investors. There is a lack of research on the relationship between financial knowledge and investment in ESG factors in the United States. This study is one of the initial efforts to explore the relationship between investment-specific financial knowledge and the perceived importance of ESG factors in investment decisions among investors in the United States. ESG investing possesses distinct risk-return dynamics and premium attributes (Cornell, 2021; Pisani & Russo, 2021); potentially, individuals who possess or perceive themselves to have advanced investment knowledge might demonstrate a preference for ESG factors. Experienced investors or those relying on financial advisors for insights will also likely stay updated on current trends and regulations, which could influence their perceptions of ESG.

According to a study conducted on Latvian investors, the likelihood of investing in assets that adhere to ESG criteria is contingent upon factors such as net income, education attainment, financial literacy, and savings and investment experience (Mavlutova et al., 2021). A higher proportion of younger respondents under 35 were more inclined to invest due to their aspiration to acquire knowledge about investment (Lin et al., 2022). Ethical investors are predominantly female, suggesting there may be a gender disparity in favor of ethical investment practices (Tippet & Leung, 2001). Geographical and industry-specific variations exist in ESG preferences across the United States (Baker et al., 2022). More specifically, higher-income regions are more likely to have an ESG investment option in 401(k) plans. Areas with aging and highly educated populations are more likely to offer an

ESG investment choice in 401(k) retirement plans.

However, limited studies are exploring what drives the significance of ratings based on ESG factors among individual investors when making investment decisions. This study aims to determine whether there is a significant relationship between individual attributes and the perceived value of ESG investing among investors in the United States. Building on previous research, this study acknowledges the significance of finance-related variables. Therefore, this study proposed that:

H_2: Objective and subjective financial knowledge, investment experience, reliance on advisors for financial information, and risk tolerance are significantly associated with the valuation of ESG factors in investment decision-making.

Methodology

Data

The data utilized in the research were obtained from the 2021 National Financial Capability Studies (NFCS) Investor Survey and State-by-State Survey. The NFCS is an intensive, large-scale research project conducted triennially by the FINRA Investor Education Foundation since 2009. The Investor Survey delves more deeply into investing-related topics. The 2021 Investor Survey comprised 2,824 respondents who participated in the 2021 State-by-State Survey and disclosed holdings in nonretirement accounts, providing substantial information regarding investment motivations, investment knowledge, and investment attitudes. After removing the "don't know" and "prefer not to say" answers for the key variables of interest, the combined data set analyzed for this study now contains 2,324 investors.

Key Variable

ESG Importance. The dependent variable measured the importance investors placed on ESG factor. This investment preference measure was built by answering the question, "How important is ESG (environmental, social, and corporate governance issues) to you when making investment decisions?" Possible answers range from 1 = not at all important to 10 = extremely important.

Social Responsibility Motivation. In the investor surveys, respondents were questioned about their investment motivations. Specifically, they were presented with the statement "To make a difference in the world/support values I care about/be socially responsible" and asked to assess how well this statement describes their motivation for investing. Responses indicating the statement "Describes somewhat" or "Describes very well" their motivation were coded as 1. Conversely, if a respondent selected "Does not describe at all," this response was coded as 0. This variable was also dummy-coded into three levels to capture the gradation in respondents' motivations.

Financial Variables

Financial-related variables included objective investment knowledge and subjective investment knowledge. Objective investment knowledge was measured by correctly answering 11 multiple-choice questions that objectively examined the respondents' investment concept. The questions encompass a range of investment-related topics, including comprehension of fundamental concepts related to stock and bond ownership, evaluation of risks associated with different securities, analysis of investment returns, recognition of the benefits of index funds compared with actively managed funds, understanding of margin trading and short selling, and proficiency in calculating the value of call options. "Don't know" and "Prefer not to say" were coded as incorrect answers for each item. Subjective investment knowledge was assessed by asking respondents to self-rate their overall understanding of investing on a 7-point Likert scale, with 1 indicating a very low level of knowledge and 7 indicating a very high level of knowledge. Detailed information regarding investment knowledge is provided in the appendix.

Financial-related variables also included investment experience categories: starting investment less than a year ago, one year to less than two years ago, two years to less than five years ago, five years to less than 10 years ago, and 10 years ago or more (reference group), risk

tolerance level, and whether investors depend on guidance from financial professionals. The investors' risk tolerance was assessed using a 10-point Likert scale, with a score of 1 indicating a weak willingness to take risks and a score of 10 indicating a strong willingness to take risks when considering their financial investments. The information dependence on financial professionals was assigned a value of 1 if investors admitted relying on financial professional recommendations when determining investment opportunities and a value of 0 otherwise.

Other Variables

To investigate the variables that may have a substantial association with ESG investment preference, sociodemographic variables, human capital variables, and economic variables were included as control variables. Sociodemographic variables included gender, racial group, marital status, the presence of financially dependent children, employment status, and age categories. Human capital variables included educational attainment categories. Economic variables included high investment account balance (higher than $100,000), homeownership, and income categories.

Analysis

The dependent variable, the perceived importance of the ESG factors on investing, was assessed using an ordinal scale ranging from 1 to 10, with each value denoting a unique level of importance. The dependent variable indicates a relative symmetric distribution with a mean of 4.823; however, the kurtosis value of 2.026 suggests a platykurtic distribution, which deviates from the normal distribution kurtosis. Given the significant sample size, the central limit theorem helps mitigate the impact of nonnormality. Consequently, an ordinary least-squares linear regression analysis employing robust standard errors was performed. Specifically, this study employed a two-step hierarchical cumulative order logistic regression approach to analyze the data. In the first step, the model included financial-related, sociodemographic, human capital, and economic variables to establish a baseline model. The second step of the model, i.e., social responsibility motivation, was introduced as an additional variable. By employing this methodology, this research can differentiate and assess the unique influence of social responsibility motivation on investors' perception of the extent to which ESG is important.

$$ESG = \beta 0 + \beta 1X1 + \beta 2X2 + \cdots + \beta kXk + \epsilon \quad (1)$$

$$ESG = \beta 0 + \beta 1X1 + \beta 2X2 + \cdots + \beta kXk + \beta_{SRM}X_{SRM} + \epsilon \quad (2)$$

Where:

$\beta 0$: the intercept;

$\beta 1 \ldots \beta k$: the coefficients for the independent variables (financial-related, sociodemographic, human capital, and economic variables) in step 1;

β_{SRM} coefficient for the additional socially responsible motivation variable, introduced in step 2; and

ϵ: error terms

To elevate understanding of the perceived significance of ESG factors, this study also segmented the analysis based on the level of social responsibility motivation among investors, categorizing them as "none," "somewhat," and "very well" motivated. As a result of the heterogeneous nature of having socially responsible investment motivations, the relationship between variables and the importance of ESG may vary. Consistent and significant variables may yield crucial insights when contrasting the outcomes of two distinct groups. Additional analyses were conducted on subsample groups, specifically emphasizing gender, financial experience, and dependence on information provided by financial professionals.

Results

Descriptive Results

Table 1 provides an overview of the characteristics of the sampled investors as well as a detailed breakdown of the two groups, differentiated by the presence and absence of socially responsible motivation. The average importance rating for ESG in investment

decisions was 4.792 on a 10-point Likert scale. Among the 2,324 investors surveyed, 41.61% somewhat or well identified with investing motivations related to making a difference, supporting personal values, or being socially responsible. When tested on 11 objective investment knowledge questions, investors typically answered five to six questions correctly. Investors also rated their investment knowledge subjectively on the higher end of the 7-point Likert scale, with a mean score of 4.904. Investing experience varied among sampled investors, with 68.80% having over 10 years of experience, and only 3.87% being new investors with less than a year of experience. Risk tolerance, measured on a 10-point Likert scale, averaged at 6.207.

Demographically, the majority were male (63.94%), White (80.98%), and married (66.95%). Singles accounted for 18.29% of the sample. Financial dependents were present in 26.03% of investors' households. Employment status showed that 53.57% were employed at the time of surveying. Age distribution was broad, with the highest representation from those aged 65 and older (41.52%) and the lowest from 18- to 24-year-olds (2.88%). Educational attainment revealed that 49.61% had a college or postgraduate degree. Economically, 59.72% had nonretirement investment accounts exceeding $100,000. Homeownership was common, with 84.94% owning homes. Income varied, with the highest percentage (23.92%) earning between $100,000 and $150,000 annually. Exploratory research demonstrated significant differences between individuals motivated by social responsibility and those who are not across various dimensions. This was evidenced by two-sample t-tests for continuous variables, highlighting disparities in investment knowledge (objective: t = 8.768***; subjective: t = -7.555***) and risk tolerance level (t = -8.179***). Additionally, two-sample tests for proportions on dummy coded variables revealed significant differences in gender (z = 3.478**).

Regression Results

Results of the two-step hierarchical OLS regression model can be found in Table 2. All variance inflation factor (VIF) values are below 5, indicating no issues with multicollinearity. In Model 1, financial-related and sociodemographic variables showed significant relationships with the perceived importance of ESG factors. A clear distinction was demonstrated between objective investment knowledge and subjective investment knowledge concerning the rating of ESG importance level. Objective investment knowledge score was negatively associated with the perceived importance of ESG factors when making investment decisions. On the contrary, subjective investment knowledge was positively associated with the perceived importance of ESG factors. Investors with shorter investing periods tended to assign more importance to ESG factors than those who started investing 10 years ago or more. Investors who rely on recommendations from their personal financial professionals see ESG factors as more important. As risk tolerance increases, so does the perceived importance of ESG factors. Employed individuals, those with financial dependents, and investors aged 18 to 24 were positively associated with importance rating to ESG factors than their counterparts. Men, white respondents, and widowed were associated with a lower perceived importance of ESG factors.

In Model 2, socially responsible motivation has a substantial and positive association with the importance investors place on ESG factors when making investment decisions. H_1 was supported. Consistent with the findings of baseline Model 1, an inverse relationship existed between objective investment knowledge and the degree of importance assigned to ESG factors during the investment process. Objective investment knowledge was negatively associated with the perceived importance of ESG factors, whereas subjective investment knowledge showed a positive association. Compared with those with 10 years more investment experience, individuals with less than 10 years but more than one year of investment experience showed a positive association with assigning greater importance to ESG factors when making investment decisions. Reliance on a financial advisor's recommendations and higher risk tolerance were associated with greater perceived importance of ESG factors. Sociodemographic variables, such as males, being widowed, and aged 45 to 54,

indicated a lower perceived importance of ESG factors compared with the reference group. Nevertheless, no human capital or economic variables exhibited a substantial role after incorporating the socially responsible motivation. Additionally, a significant disparity of R^2 was observed between models 1 and 2, underscoring the necessity of including the motivation variable in the analyses.

Table 3 presents the outcomes of the segmentation analysis, which examines socially responsible motivation across three distinct levels. H_2 received further validation. The analysis revealed that objective and subjective investment knowledge significantly influenced the degree of importance placed on ESG factors, independent of the level of socially responsible motivation. In particular, among investors with some degree of socially responsible motivation, subjective investment knowledge and two to 10 years of investment experience were positively correlated with assigning greater importance to ESG factors. On the other hand, investors who are highly motivated by social responsibility, objective investment knowledge, and risk tolerance stood out as key factors influencing the perceived importance of ESG factors in investment decisions. Consistent with the main findings, objective and subjective investment knowledge exhibited an opposite relationship with the perceived importance of ESG factors among investors who were not motivated by a sense of social responsibility. Additionally, investors relying on information from personal financial professionals rated ESG factors as more important than those not motivated by social responsibility. Male investors who were either not motivated or only partially motivated by social responsibility were less likely to place significant importance on ESG factors. The perceived importance of ESG factors was positively correlated with a high investment account balance and being between the ages of 18 and 24 among those who were somewhat motivated by social responsibility.

Robustness Check

The results of the subsample analysis, which considered gender, financial experience, and reliance on information from personal financial professionals, upheld the direction and significance of socially responsible motivation in the perception of the importance of ESG factors. The financial-related variables largely mirrored the main findings. Table 4 presents a comprehensive overview of these results.

Discussion and Implications

Results Discussion

The findings of this study contribute to the growing body of literature on ESG investing. Drawing on the VBN theory proposed by Stern et al. (1999), when ethical, societal, and environmental concerns resonate with investors' personal values, those driven by a sense of social responsibility were more inclined to give greater weight to these factors when making investments. The heightened importance assigned to ESG could indicate that investors believe that their investment choices should align with their personal values and address ethical, societal, and environmental concerns positively. As a result of this VBN connection, they prioritize ESG concerns when making investing decisions, which may finally translate into ESG investing as a norm behavior. This study utilized a two-step hierarchical regression to distinguish the significance of social responsibility motivation in the perceived importance of ESG factors during investment decisions, and the findings highlight the key role of ethical motives. The motivation, which includes the aspiration to provide a beneficial impact on society, uphold individual ideals, or be socially responsible, is instrumental in shaping the preferences and choices of investors. Additionally, the subgroup analysis, segmented by gender, financial experience, and reliance on information from financial professionals, offers strong evidence supporting the significance of socially responsible motivation. Investors are likely driven by intrinsic motivations when it comes to investing, especially on ESG factors. The results shown in tables 2 and 4 align with prior literature that highlights the importance of individual values and preferences in the process of investing selection (Bauer & Smeets, 2015; Delmas & Blass, 2010). H_1 was fully supported through theoretical framework as well as analysis evidence.

Table 1. Descriptive Analysis

	Whole Sample (N = 2,324)		Socially Responsible Motivation Yes (N = 967)		No (N = 1,357)			
Variable	Mean/%	Std. dev.	Mean/%	Std. dev.	Mean/%	Std. dev.	Min	Max
ESG importance rating	4.792	2.710	6.560	2.209	3.531	2.299	1	10
Socially responsible motivation	41.61%							
Does not describe at all	58.39%							
Describes somewhat	30.59%							
Describes very well	11.02%							
Financial variables								
Objective investment knowledge	5.508	2.431	4.993	2.388	5.875	2.395	0	11
Subjective investment knowledge	4.904	1.298	5.142	1.235	4.734	1.315	1	7
Investment experience in years								
Less than a year	3.87%		5.17%		2.95%			
1 year to less than 2 years	7.44%		11.17%		4.79%			
2 years to less than 5 years	9.08%		13.13%		6.19%			
5 years to less than 10 years	10.80%		13.44%		8.92%			
10 years or more	68.80%		57.08%		77.16%			
Information dependence (advisor)	70.96%		78.08%		65.88%			
Risk tolerance	6.207	2.238	6.650	2.220	5.891	2.197	1	10
Socio-demographic variables								
Male	63.94%		59.26%		67.28%			
Whites	80.98%		74.25%		85.78%			
Married	66.95%		64.01%		69.05%			
Single	18.29%		21.92%		15.70%			
Divorced or separated	9.90%		9.20%		10.39%			
Widowed	4.86%		4.86%		4.86%			
Has dependents	26.03%		34.54%		19.97%			
Employed	53.57%		65.15%		45.32%			
Age categories								
Age 18 to 24	2.88%		5.07%		1.33%			
Age 25 to 34	7.31%		12.00%		3.98%			
Age 35 to 44	13.08%		17.27%		10.10%			
Age 45 to 54	12.87%		13.44%		12.45%			
Age 55 to 64	22.33%		20.37%		23.73%			
Age 65 and above	41.52%		31.85%		48.42%			

Table 1 Continued

Human capital variables			
High school and lower	8.39%	8.27%	8.47%
Some college	17.25%	16.13%	18.05%
College degree	49.61%	49.33%	49.82%
Graduate degree	24.74%	26.27%	23.66%
Economic variables			
High investment account balance	59.72%	55.53%	62.71%
Homeownership	84.94%	83.25%	86.15%
Income level			
$35,000 and lower	10.03%	10.65%	9.58%
$35,000-$50,000	9.42%	8.79%	9.87%
$50,000-$75,000	18.98%	17.89%	19.75%
$75,000-$100,000	19.84%	20.48%	19.38%
$100,000-$150,000	23.92%	25.13%	23.07%
$150,000 and above	17.81%	17.06%	18.35%

Note: This table presents descriptive statistics for the entire sample alongside a detailed comparative descriptive analysis of investors categorized by their socially responsible motivation. The variable for socially responsible motivation was converted into a binary format, indicating whether motivation was present or not. In the original dataset, motivation was categorized into three levels of agreement in response to the statement, "To make a difference in the world, support values I care about, and be socially responsible." These levels were identified as "does not describe at all," "describes somewhat," and "describes very well," allowing respondents to rate how accurately this statement reflected their investment motivation.

Table 2. Hierarchical OLS Regression Results

	Model 1				Model 2			
	Coef.	Robust SE.	t	P>z	Coef.	Robust SE.	t	P>z
Socially responsible motivation					2.407	0.100	23.98	***
Financial variables								
Objective investment knowledge	-0.192	0.024	-8.06	***	-0.129	0.022	-6.00	***
Subjective investment knowledge	0.481	0.046	10.54	***	0.325	0.042	7.74	***
Investment experience in years (ref: 10 years or more)								
Less than a year	0.593	0.256	2.32	*	0.287	0.240	1.20	
1 year to less than 2 years	1.239	0.229	5.42	***	0.960	0.204	4.71	***
2 years to less than 5 years	0.936	0.191	4.91	***	0.634	0.174	3.64	***
5 years to less than 10 years	0.527	0.175	3.00	**	0.341	0.158	2.16	*
Information dependence (advisor)	0.818	0.118	6.96	***	0.515	0.105	4.88	***
Risk tolerance	0.096	0.027	3.52	***	0.057	0.025	2.31	*
Socio-demographic variables								
Male	-0.701	0.111	-6.29	***	-0.479	0.099	-4.81	***
Whites	-0.365	0.131	-2.78	**	-0.061	0.118	-0.51	
Marital status (ref: Single)								
Married	-0.253	0.164	-1.55		-0.157	0.142	-1.10	
Divorced or separated	-0.096	0.218	-0.44		-0.053	0.192	-0.28	
Widowed	-0.625	0.252	-2.49	*	-0.685	0.245	-2.80	**
Has dependents	0.302	0.145	2.08	*	0.185	0.127	1.46	
Employed	0.388	0.133	2.93	**	0.177	0.119	1.48	
Age categories (ref: Age 65+)								
Age 18 to 24	0.797	0.368	2.17	*	0.492	0.333	1.48	*
Age 25 to 34	0.352	0.260	1.35		0.120	0.235	0.51	
Age 35 to 44	0.154	0.221	0.70		0.159	0.198	0.81	
Age 45 to 54	-0.350	0.198	-1.77		-0.308	0.176	-1.75	*
Age 55 to 64	-0.067	0.147	-0.46		-0.055	0.129	-0.43	
Human capital variables (ref: High school and lower)								
Some college	-0.054	0.214	-0.25		-0.116	0.198	-0.59	
College degree	0.028	0.195	0.14		-0.060	0.181	-0.33	
Graduate degree	0.146	0.214	0.68		-0.036	0.196	-0.18	
Economic variables								
High investment account balance	0.060	0.121	0.49		0.119	0.109	1.09	
Homeownership	0.157	0.159	0.98		0.083	0.144	0.58	

Table 2 Continued

Income level (ref: $150,000+)								
$35,000 and lower	0.181	0.236	0.77		0.111	0.211	0.53	
$35,000-$50,000	0.203	0.227	0.90		0.166	0.199	0.83	
$50,000-$75,000	0.217	0.184	1.18		0.179	0.158	1.13	
$75,000-$100,000	0.187	0.171	1.09		0.107	0.152	0.70	
$100,000-$150,000	0.133	0.160	0.83		0.016	0.140	0.11	
Intercept	2.356	0.416	5.67	***	2.207	0.377	5.86	***
	F (30,2293) = 26.48				F (31,2292) = 55.51			
	R^2 = 0.2258				R^2 = 0.3860			

Note. This table shows the results from the two-step hierarchical OLS regression analysis assessing the impact of socially responsible motivation, financial-related variables, and other factors on investors' perception of ESG importance. In Model 2, *socially responsible motivation* was binary coded, signifying its presence or absence. *Objective investment knowledge* scores reflect correct responses out of 11 investment-specific questions, while *subjective investment knowledge* was scored on a 7-point scale. *Risk tolerance* spans a 10-point scale, indicating the willingness of respondents to undertake financial risks. *Investment experience in years* was differentiated into five levels and was dummy coded to reference those with 10 years or more of experience. *Information dependence (advisor)* was represented as a dummy variable to indicate whether respondents rely on financial professionals for information. Socio-demographic variables, human capital variables, and economic variables were dummy coded. Model 1 and Model 2 report the coefficients, robust standard errors, *t* statistics, and significance levels. The significance levels are indicated by asterisks: *p < 0.05, **p < 0.01, ***p < 0.001.

Table 3. Segmentation Analysis OLS Regression Results

	Not at all (N = 1,357)				Somewhat (N = 711)				Very well (N = 256)			
	Coef.	Robust SE.	t	P>z	Coef.	Robust SE.	t	P>z	Coef.	Robust SE.	t	P>z
Financial variables												
Objective investment knowledge	-0.107	0.031	-3.47	**	-0.057	0.034	-1.67		-0.170	0.065	-2.62	**
Subjective investment knowledge	0.232	0.057	4.10	***	0.398	0.080	4.95	***	0.294	0.157	1.88	
Investment experience in years (ref: 10 years or more)												
Less than a year	0.129	0.392	0.33		0.375	0.343	1.09		0.152	0.615	0.25	
1 year to 2 years	0.668	0.351	1.91		1.290	0.312	4.13	***	0.788	0.430	1.83	
2 years to 5 years	0.427	0.281	1.52		0.804	0.271	2.97	**	0.188	0.445	0.42	
5 years to 10 years	0.214	0.236	0.91		0.493	0.244	2.02	*	-0.021	0.370	-0.06	
Information dependence (advisor)	0.568	0.137	4.14	***	0.275	0.181	1.52		0.520	0.434	1.20	
Risk tolerance	0.014	0.033	0.43		0.057	0.042	1.35		0.202	0.076	2.65	**
Socio-demographic variables												
Male	-0.562	0.140	-4.01	***	-0.636	0.155	-4.09	***	-0.158	0.270	-0.58	
Whites	-0.167	0.183	-0.91		-0.095	0.174	-0.55		0.509	0.284	1.79	
Marital status (ref: Single)												
Married	-0.319	0.201	-1.59		0.111	0.225	0.49		-0.487	0.383	-1.27	
Divorced or separated	-0.198	0.262	-0.75		0.077	0.296	0.26		0.530	0.506	1.05	
Widowed	-0.385	0.328	-1.17		-1.085	0.365	-2.97	**	-0.315	0.699	-0.45	
Has dependents	0.193	0.184	1.05		0.011	0.208	0.05		0.156	0.313	0.50	
Employed	0.263	0.155	1.70		-0.073	0.192	-0.38		0.107	0.456	0.23	
Age categories (ref: Age 65+)												
Age 18 to 24	0.224	0.685	0.33		0.814	0.491	1.66	*	0.365	0.734	0.50	
Age 25 to 34	0.211	0.390	0.54		0.167	0.377	0.44		0.077	0.595	0.13	
Age 35 to 44	-0.207	0.280	-0.74		0.327	0.335	0.98		0.616	0.601	1.03	
Age 45 to 54	-0.388	0.242	-1.60		-0.174	0.261	-0.67		0.079	0.656	0.12	
Age 55 to 64	-0.246	0.166	-1.48		0.241	0.211	1.14		0.445	0.510	0.87	
Human capital variables (ref: High school and lower)												
Some college	-0.358	0.266	-1.35		0.348	0.327	1.06		0.132	0.566	0.23	
College degree	-0.222	0.243	-0.91		0.247	0.291	0.85		-0.098	0.522	-0.19	
Graduate degree	-0.280	0.267	-1.05		0.229	0.316	0.73		-0.056	0.548	-0.10	
Economic variables												
High investment account balance	-0.239	0.151	-1.58		0.555	0.174	3.20	**	0.478	0.291	1.64	

Table 3 Continued

Homeownership	0.031		0.209	0.15	0.072	0.229	0.31	0.016	0.406	0.04	
Income level (ref: $150,000+)											
$35,000 and lower	-0.040		0.288	-0.14	0.251	0.358	0.70	-0.002	0.602	0.00	
$35,000-$50,000	0.147		0.264	0.56	0.148	0.335	0.44	-0.308	0.607	-0.51	
$50,000-$75,000	0.109		0.216	0.50	0.237	0.255	0.93	-0.089	0.474	-0.19	
$75,000-$100,000	0.248		0.206	1.20	-0.239	0.256	-0.94	0.031	0.388	0.08	
$100,000-$150,000	0.099		0.191	0.52	-0.091	0.237	-0.38	0.145	0.372	0.39	
Intercept	3.525		0.534	6.60	3.283	0.607	5.41	4.263	1.345	3.17	**
	F (30, 1326) = 3.32				F (30, 680) = 4.91			F (30, 225) = 4.61			
	R^2 = 0.0734				R^2 = 0.1632			R^2 = 0.2974			

Note: This table presents the outcomes of an OLS regression analysis segmented by the levels of socially responsible motivation among investors, categorized as "Not at all," "Somewhat," and "Very well." The coefficients, robust standard errors, *t* statistics, and significance levels are reported, with significance denoted by asterisks: *p < 0.05, **p < 0.01, ***p < 0.001. The model's goodness of fit is indicated by the R-squared values, whereas the F statistics signify the overall significance of each model.

Table 4. Robustness Check with Segmentation Analysis OLS Regression Results

	Gender							
	Men (N = 1,486)				Women (N = 838)			
	Coef.	Robust SE.	t	P>z	Coef.	Robust SE.	t	P>z
Socially responsible motivation	2.501	0.135	18.58	***	2.252	0.149	15.16	***
Financial variables								
Objective investment knowledge	-0.172	0.028	-6.20	***	-0.040	0.033	-1.19	
Subjective investment knowledge	0.313	0.053	5.86	***	0.311	0.066	4.72	***
Investment experience in years (ref: 10 years or more)								
Less than a year	0.008	0.363	0.02		0.593	0.321	1.84	
1 year to less than 2 years	1.094	0.245	4.47	***	0.472	0.332	1.42	
2 years to less than 5 years	0.558	0.220	2.54	*	0.686	0.296	2.32	*
5 years to less than 10 years	0.426	0.207	2.06	*	0.104	0.236	0.44	
Information dependence (advisor)	0.336	0.135	2.50	*	0.773	0.165	4.68	***
Risk tolerance	0.013	0.031	0.42		0.122	0.039	3.14	**
Socio-demographic variables								
Male	-	-	-		-	-	-	
Whites	-0.055	0.155	-0.36		-0.076	0.183	-0.41	
Marital status (ref: Single)								
Married	-0.029	0.187	-0.15		-0.410	0.219	-1.87	
Divorced or separated	-0.212	0.270	-0.78		-0.001	0.276	0.00	
Widowed	-1.289	0.363	-3.55	***	-0.496	0.341	-1.45	
Has dependents	0.261	0.169	1.55		0.013	0.201	0.07	
Employed	0.261	0.161	1.62		0.024	0.177	0.13	
Age categories (ref: Age 65+)								
Age 18 to 24	0.666	0.421	1.58		0.477	0.517	0.92	
Age 25 to 34	0.064	0.303	0.21		0.308	0.361	0.85	
Age 35 to 44	0.266	0.244	1.09		-0.029	0.349	-0.08	
Age 45 to 54	-0.378	0.232	-1.63		-0.076	0.274	-0.28	
Age 55 to 64	-0.150	0.177	-0.85		0.187	0.189	0.99	
Human capital variables and economic variables included								
Intercept	2.198	0.501	4.39	***	1.687	0.587	2.87	**
	F (30, 1455) = 44.77				F (30, 807) = 18.52			
	R^2 = 0.4056				R^2 = 0.2929			

Table 4 Continued

	Financial Experience							
	< 10 years (N = 725)				>= 10 years (N = 1,599)			
	Coef.	Robust SE.	t	P>z	Coef.	Robust SE.	t	P>z
Socially responsible motivation	2.219	0.201	11.01	***	2.450	0.116	21.03	***
Financial variables								
Objective investment knowledge	-0.181	0.041	-4.38	***	-0.087	0.026	-3.31	**
Subjective investment knowledge	0.537	0.073	7.35	***	0.170	0.054	3.16	**
Investment experience in years (ref: 10 years or more)								
Less than a year	-	-	-		-	-	-	
1 year to less than 2 years	-	-	-		-	-	-	
2 years to less than 5 years	-	-	-		-	-	-	
5 years to less than 10 years	-	-	-		-	-	-	
Information dependence (advisor)	0.384	0.195	1.97	*	0.511	0.126	4.04	***
Risk tolerance	0.080	0.046	1.73		0.043	0.029	1.49	
Socio-demographic variables								
Male	-0.258	0.176	-1.46		-0.583	0.120	-4.87	***
Whites	0.008	0.185	0.05		-0.159	0.154	-1.03	

Table 4 Continued

Marital status (ref: Single)								
Married	-0.081	0.244	-0.33		-0.297	0.177	-1.68	
Divorced or separated	0.075	0.359	0.21		-0.247	0.231	-1.07	
Widowed	-0.466	0.592	-0.79		-0.847	0.281	-3.02	**
Has dependents	0.055	0.201	0.27		0.151	0.170	0.89	
Employed	0.140	0.255	0.55		0.190	0.134	1.41	
Age categories (ref: Age 65+)								
Age 18 to 24	0.625	0.462	1.35		-0.276	0.759	-0.36	
Age 25 to 34	0.042	0.372	0.11		0.445	0.517	0.86	
Age 35 to 44	0.219	0.355	0.62		-0.265	0.278	-0.95	
Age 45 to 54	-0.766	0.350	-2.19	*	-0.111	0.211	-0.53	
Age 55 to 64	-0.172	0.332	-0.52		-0.044	0.142	-0.31	
Human capital variables and economic variables included								
Intercept	2.008	0.621	3.23	***	3.357	0.494	6.79	***
	F (27, 697) = 32.12 R^2 = 0.4753				F (27, 1571) = 26.37 R^2 = 0.2929			

Table 4 Continued

	Information Dependence from Advisors							
	Yes (N = 1,649)				No (N = 675)			
	Coef.	Robust SE.	t	P>z	Coef.	Robust SE.	t	P>z
Socially responsible motivation	2.346	0.118	19.96	***	2.531	0.199	12.70	***
Financial variables								
Objective investment knowledge	-0.143	0.025	-5.67	***	-0.071	0.042	-1.67	
Subjective investment knowledge	0.358	0.050	7.13	***	0.230	0.081	2.83	**
Investment experience in years (ref: 10 years or more)								
Less than a year	0.528	0.288	1.83		-0.072	0.396	-0.18	
1 year to less than 2 years	1.012	0.255	3.97	***	0.852	0.341	2.50	*
2 years to less than 5 years	0.710	0.199	3.56	***	0.440	0.341	1.29	
5 years to less than 10 years	0.268	0.177	1.51		0.490	0.339	1.44	
Information dependence (advisor)	-	-	-		-	-	-	
Risk tolerance	0.087	0.029	2.95	**	-0.003	0.045	-0.07	
Socio-demographic variables								
Male	-0.555	0.116	-4.81	***	-0.268	0.198	-1.35	
Whites	0.025	0.139	0.18		-0.328	0.226	-1.45	
Marital status (ref: Single)								
Married	-0.142	0.169	-0.84		-0.134	0.270	-0.50	
Divorced or separated	0.076	0.231	0.33		-0.289	0.340	-0.85	
Widowed	-0.617	0.283	-2.18	*	-0.952	0.458	-2.08	*
Has dependents	0.267	0.153	1.75		-0.097	0.236	-0.41	
Employed	0.174	0.141	1.24		0.180	0.229	0.79	
Age categories (ref: Age 65+)								
Age 18 to 24	0.205	0.385	0.53		0.919	0.681	1.35	
Age 25 to 34	0.010	0.282	0.04		0.252	0.428	0.59	
Age 35 to 44	0.144	0.237	0.61		0.083	0.367	0.23	
Age 45 to 54	-0.433	0.215	-2.02	*	-0.180	0.319	-0.56	
Age 55 to 64	-0.169	0.148	-1.14		0.227	0.259	0.87	
Human capital variables and economic variables included								
Intercept	2.285	0.442	5.17	***	3.337	0.716	4.66	***
	F (30, 1618) = 44.09				F (30, 644) = 11.70			
	R^2 = 0.4031				R^2 = 0.3188			

Note: Table 4 provides the outcomes of robustness checks through three separate segmentation analyses within OLS regression, aimed at assessing the influence of socially responsible motivation, financial variables, and other factors on investors' perceptions of ESG importance. The analyses differentiate the sample by gender (Men vs. Women), financial experience (<10 years vs. >=10+ years), and information dependence on advisors (Yes vs. No). *Socially responsible motivation* is coded in a binary manner, indicating its presence or absence. Significant levels are marked with asterisks: *p<0.05, **p<0.01, ***p<0.001.

The results of this study challenge the positive correlation between objective financial knowledge and ESG investing identified in earlier international research (i.e., Cucinelli & Soana, 2023; Kar & Patro, 2024). It is important to note that, unlike previous studies that focused on fundamental financial knowledge, this study emphasizes investment-specific knowledge. Among the whole analytical sample, findings in the current study highlight a negative relationship between objective investment knowledge and the level of importance assigned to ESG when

making an investment. On the contrary, subjective investment knowledge was found to be positively associated with the perceived importance of ESG factors. The results of segment analysis in Table 3 reveals that financial-related variables, including objective or subjective investment knowledge, investment experience over time, information dependence, and risk tolerance, influence the degree of importance individuals attributed to ESG factors differently among investors with varied levels of socially responsible motivation.

For investors somewhat motivated by social responsibility, subjective investment knowledge played a significant positive role. Conversely, objective investment knowledge demonstrated a significant negative role among investors highly motivated by social responsibility. The opposite sign might contribute to the fact that traditional investment vehicles may be appealing to investors with highly objective investment knowledge, as they possess a factual understanding of investment principles. As noted in Giglio et al. (2023), individual investors generally expect lower monetary returns on ESG investment; investors with high objective investment knowledge may prioritize quantitative metrics and perceive the ESG factor as less directly linked to financial performance. They may place a higher value on financial performance from traditional fundamental financial analysis compared with ESG factors.

On the contrary, the positive relationship between subjective investment knowledge and ESG importance may indicate differences in values and beliefs. Investors with higher subjective investment knowledge may exhibit heightened consciousness regarding social and environmental concerns, thereby attributing more significance to ESG factors. Given the inherent difficulty in quantifying the nonmonetary return associated with fulfilling personal values (Cornell, 2021), investors with a high degree of subjective investment knowledge may be more receptive to incorporating nontraditional factors such as ESG into their investment decisions, believing that doing so will increase their total returns.

It is crucial to emphasize that there is presently a scarcity of research that connects investment knowledge with individuals' perspectives of the significance of ESG aspects or their actual investment behaviors on ESG. This study seeks to investigate objective and subjective investment knowledge in order to provide fundamental insights into this relatively unexplored field. Further examination is warranted to explore the intricate relationship between objective and subjective investment knowledge and the subsequent manifestation of overconfidence. This field of study holds significant potential for future research.

Investors with more than one year but less than a decade of investing experience were found to place a higher value on ESG factors than investors with more than 10 years of experience, especially those who are moderately motivated by social responsibility. Young investors, especially those aged 18 to 24, compared with those aged 65 and above, were more likely to assign a higher importance to ESG factors. This may arise due to an increasing number of higher education institutions incorporating sustainable development concepts into their curricula to educate students about sustainability (Gigauri et al., 2022), which could raise novice investors' awareness of the importance of sustainability and ethical considerations when making investments.

Individuals who rely on recommendations from financial experts on investment matters were found to be more likely to assign greater perceived value to ESG factors when making investment decisions. This holds true even for investors who are not driven by a sense of social responsibility. Further, investors may trust their advisors' expertise if they depend on financial advisors for information. Financial professionals who emphasize the significance of ESG factors can shape investors' perceptions. Through engaging discussions, financial professionals could enhance investors' understanding of ESG issues, the advantages of ESG in times of market uncertainty, and its potential to mitigate long-term risks (Cerqueti et al., 2021; Mavlutova et al., 2021; Pisani & Russo, 2021). This result should be interpreted with caution because the data set employed in this study did not provide information on whether financial advisors offer

detailed insights into ESG factors to individual investors. Future studies could extend this line of research and utilize direct measurement of whether financial advisors incorporate ESG considerations into their advice and how this influences investors' perceptions and actual investment behaviors.

The higher the risk tolerance, the perception of the importance of ESG factors also increases. This relationship was obvious among investors who were strongly motivated by social responsibility, indicating that such investors might anticipate lower returns outside of crises (Cerqueti et al., 2021; Giglio et al., 2023). A higher level of risk tolerance was required to engage in ESG investments.

Implications

The findings of this study provide financial institutions and financial planners with critical insights. Financial institutions could develop targeted marketing strategies based on the identified unique characteristics of investors who place a high value on ESG. Financial practitioners could accommodate their clients more effectively when products that emphasize ESG criteria align well with client's investment portfolios and individual situations. This calls for identifying investors with a strong commitment to social responsibility or having more than one year but less than 10 years of experience. Financial planners and advisors might consider developing new strategies to meet the specific needs of different investors based on their clients' investment motivation. Additionally, financial planners and advisors need to acknowledge their crucial influence on shaping the perceived significance of ESG factors among investors who may not be inherently driven by social responsibility. They should also consider providing guidance and educational resources to the broader investor community.

The favorable relationship between subjective investment knowledge and the importance of ESG factors indicates that confident investors would benefit from education programs regarding trending investments. Investors may be able to make more informed decisions if robust reporting and transparency standards for ESG factors are implemented and enforced. Policymakers could establish an awareness program to enlighten investors regarding the benefits and potential risks of ESG investing during various market conditions, the investment's long-term orientation, and the potential expenses linked to ESG investing. Individuals with a high level of objective investment knowledge who place little weight on ESG factors when making investment decisions may underestimate the significance of these factors. Financial institutions might consider designing and providing a comprehensive brochure that discusses investment options in accordance with ESG criteria. Tailored guidelines may be more effective, given that investors with different risk tolerance levels place differing degrees of significance on ESG factors.

Given the increasing awareness and demand for ESG mutual funds, policymakers might prioritize promoting ESG transparency and establishing reporting standards that require companies to report comparable and dependable information on their ESG practices. This would enable investors, irrespective of their level of investment knowledge, to make more informed decisions. Due to a significant correlation between information reliance on the financial profession and the perceived importance of ESG factors, policymakers should consider establishing training requirements on ESG issues among financial professionals to ensure that advisors are adequately equipped to provide guidance on ESG investing. Understanding investors' desire for socially responsible investing and their financial circumstances can help financial professionals provide more targeted and effective investment recommendations. With the assistance of financial institutions and policymakers, investment opportunities with an ESG focus could be matched with education guidelines that are more suitable for prospective investors.

Limitation and Future Studies

The current study acknowledges certain limitations that must be recognized. While the VBN theory posits that personal values and beliefs can influence normative behaviors, the lack of data information on actual ESG investing behaviors limits the scope of our findings. Instead, this study concentrates on the significance of

ESG factors in investment decisions, providing indirect insights into ESG investing propensity. While the current analysis provides valuable insights into the perceived importance of ESG factors, due to the cross-sectional nature of the 2021 NFCS State-by-State and Investor Survey data set, this study is not intended to establish causal relationships among investing motivations, investor characteristics, and the emphasis placed on ESG factors in investment considerations. Future studies should focus on decisions that reduce potential issues associated with reverse causality. For example, as individuals perceive ESG factors as important, they might also start to see themselves as investing to make a difference, thus potentially reversing the assumed direction of impact.

Future studies could also extend the findings of this study by employing longitudinal data sets or experiments as potential ways to verify the influence of investor motivations and characteristics on the inclusion of investments that comply with ESG criteria in their portfolios. Additional research is necessary to thoroughly investigate the factors influencing investors' investment decisions in ESG options. Further analysis is required to address endogeneity and reverse causality concerns effectively, thus facilitating a more comprehensive understanding of the underlying dynamics. Furthermore, future research could build upon the foundation provided by this study to explore how external events or regulatory policies influence investors in choosing investments, which may contribute to a more holistic comprehension of ESG investment.

Conclusion

The primary goal of the present study was to investigate the relationship between investor attributes and the degree to which they prioritize environmental, social, and governance factors in their investment decision-making. In particular, this study validates the positive association between the motivation for socially responsible investment and the level of importance attributed to ESG factors. The findings provide valuable insights into the existing body of literature by establishing a connection between the VBN theory and the financial aspect, thus enhancing the current understanding of whether certain investors prioritize ESG criteria out of a self-identified motivation to effectuate positive global change, uphold personal values, or engage in socially responsible practices. Socially responsible motivation is the most robust and prominent variable linked with the perceived importance of ESG factors in subgroup analyses.

Investors with lower objective investment knowledge, higher subjective investment knowledge, more than one year but less than a decade of investing experience, reliance on information provided by financial professionals, and higher risk tolerance levels were found to assign greater importance to ESG factors during their investment decision-making process, as indicated by their responses in the hierarchical regression model. However, the significance of these financial variables differed among investors based on their varying levels of socially responsible motivation.

These findings underscore the importance of considering investor profiles in understanding ESG investment and contribute to the growing body of literature on sustainable investment by illustrating the potential multifaceted nature of ESG determinants and offering targeted strategies for engaging different investor groups. These findings have significant implications for policymakers, financial institutions, and financial practitioners. Financial practitioners should recognize an investor's investment motives and financial profile variables to facilitate the provision of more tailored and impactful investment guidance and different targeted communication strategies. Financial institutions and policymakers might develop educational programs to help investors understand complex ESG criteria and make the information more accessible and understandable to fulfill the needs of investors with varied profiles.

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Appendix

Survey Questions For Key Variables

Perceived Importance of ESG Factors

How important is ESG (environmental, social, and corporate governance issues) to you when making investment decisions?

Not at all Important — Extremely Important

1 2 3 4 5 6 7 8 9 10

Socially Responsible Motivation

How well does the following describe why you invest?

To make a difference in the world/support values I care about/be socially responsible.

1 = Does not describe at all
2 = Describe somewhat
3 = Describes very well

Objective Investment Knowledge

1. If you buy a company's stock…
   - You own a part of the company
   - You have lent money to the company
   - You are liable for the company's debts
   - The company will return your original investment to you with interest
2. If you buy a company's bond…
   - You own a part of the company
   - You have lent money to the company
   - You are liable for the company's debts
   - You can vote on shareholder resolutions
3. If a company files for bankruptcy, which of the following securities is most at risk of becoming virtually worthless?
   - The company's preferred stock
   - The company's common stock
   - The company's bonds
4. In general, investments that are riskier tend to provide higher returns over time than investments with less risk.
   - True
   - False
5. The past performance of an investment is a good indicator of future results.
   - True
   - False
6. Over the last 20 years in the US, the best average returns have been generated by:
   - Stocks
   - Bonds
   - CDs
   - Money market accounts
   - Precious metals
7. What is the main advantage that index funds have when compared to actively managed funds?
   - Index funds are generally less risky in the short term
   - Index funds generally have lower fees and expenses
   - Index funds are generally less likely to decline in value
8. Which of the following best explains why many municipal bonds pay lower yields than other government bonds?
   - Municipal bonds are lower risk

There is a greater demand for municipal bonds
Municipal bonds can be tax-free

9. You invest $500 to buy $1,000 worth of stock on margin. The value of the stock drops by 50%. You sell it. Approximately how much of your original $500 investment are you left with in the end?

$500
$250
$0

10. Which is the best definition of "selling short"?

Selling shares of a stock shortly after buying it
Selling shares of a stock before it has reached its peak
Selling shares of a stock at a loss
Selling borrowed shares of a stock

11. If you own a call option with a strike price of $50 on a security that is priced at $40, and the option is expiring today, which of the following is closest to the value of that option?

$10
$0
-$10.00

Subjective Investment Knowledge

On a scale from 1 to 7, where 1 means very low and 7 means very high, how would you assess your overall knowledge about investing?

Very low 1	2	3	4	5	6	Very high 7
1	2	3	4	5	6	7