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Navigating the Generation Z's Psychographic Impact Towards Green Investment

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ABSTRACT

This paper examines the impact of psychographic characteristics on green investment decisions among Gen Z. It concentrates on their behavioral attitudes, tendencies, and values towards sustainable investment options, with influential global threats imposed by climate change and degradation, various critical determinants that affect the decision to invest sustainably become crucial. A structured questionnaire has been designed, supported by a comprehensive and extensive review of the literature. The PLS "Partial Least Squares" and "Structural Equation Model" (SEM) has been applied to assess the behavioral tendencies of Gen Z. A structured questionnaire and PLS-SEM have been employed to collect and analyze the responses from a sample of 368 respondents. The research results and findings reveal a strong association between the psychographic characteristics of the Z generation and investment decisions in green and sustainable investment. This study shows the significance of financial awareness, transparency towards ESG, and policy initiatives in encouraging sustainable investment participation. The study's implications for bankers, stakeholders, and policy-making bodies are to create a positive atmosphere for green or sustainable investment in the economy.

1. INTRODUCTION

Generation Z, marked by heightened consumerism and narcissism, is highly digital-savvy and values sustainability, showing confident but increasingly responsible investing behaviors as information becomes available; driven by rapid fintech growth and easy market access, many trade frequently seeking quick gains despite expert criticism, highlighting the importance of behavioral finance in understanding how psychological factors shape their financial decisions [1]. Behavior is a fundamental concept in finance theory, borrowed from scientific studies of human behavior [2]. The Theory of Moral Sentiments (1759) comprises the previous concepts on the nexus of psychology and economics. Conversely, classical financial theory does not believe in these cruxes and advocates that several logical investors proceed in a competent market [3]. According to the classic thought, a logical investor makes logical decisions and assesses all available options through experience and knowledge, rather than based on beliefs [4]. Researchers contend that different subjective and objective aspects influence the decision-making approach when financing capital in the market. Investigate behavioral finance as a descriptive approach for the process of decision-making in skeptical conditions [5].

At present, with global concerns about resource depletion and climate change, the demand for sustainable investment with expected returns and consideration of environmental consciousness has increased [6].

Authors, e.g., Barnea et al. [7], Beck and Larsen [8], and Duineveld et al. [9], have examined the pattern of investment decisions through an analysis of investors' perceptions, awareness, attitudes, and personal values towards carbon-free investment. Authors investigate the influence of personal values, beliefs, perceptions, and attitudes on the sustainable decision-making process of the Z generation [10]. Hence, previous studies emphasize the importance and critical role of psychographic factors, such as society, family members, peer group, perception, and attitudes, in influencing sustainable investment decisions among the Z generation [11-13].

This research comes across how these external forces impede in the decision-making move toward and add to design a green investment point of view among Gen Z. The study comprises mediating variables such as Perceived Behavioral Control (PBC), which considers accessibility, forum ability, financial knowledge and the perceived risk in decision making for sustainable investment plans. PBC discloses insight into how people recognize their capability to compete with green investment potentials and various obstacles such as inaccessibility might impede or persuade green investment behavior [14]. Hence, research on these characteristics, this research paper attempts to add impactful findings of how Gen Z's exclusive ideals, environmental understanding, and social influence impacting their attitudes toward green funds decision. The findings of this research will facilitate regulators and policymakers in the financial system to launch new financial instruments by which they can target new generations for sustainable financial systems [15-17].

1.1 Background of the study

The investment landscape is witnessing a genuine adaptation driven by the growing psychographic attributes of Generation Z, whose ingrained values are deeply intertwined with the sustainability of livelihoods [18]. As digital residents with a strong socio-environmental attention, their investment practice surpasses the traditional profit-oriented yardstick; they choose a sustainable preference for budgets that align with their ecological and ethical ideas [19-21]. This investigation aims to identify the cognitive preferences, behavioral tendencies, and attitudinal determinants that influence meaningful investment decisions. Studying their environmental awareness, social pressure, and personal values in sustainable investment research enables a more profound insight into how Generation Z's psychographic characteristics affect their investment preferences [22].

1.2 Significance of the study

The essence of this investigation lies in its command to determine the complicated psychographic extent shaping Generation Z's green investment movement, provided that essential understandings for policymakers, financial organizations, and companies to recalibrate sustainable investment practices, enhance ESG-aligned investment instruments, bridge the learning abnormality in ethical decision for investment, and enrich a transformative standard where monetary viability come concurrently perfectly with accountability of social and climate consciousness [23].

2. HYPOTHESES

H1: Environmental Awareness → Attitude Towards Green Investment Decisions.

H2: Personal Values Concerning Sustainability → Attitude Towards Green Investment Decisions.

H3: Social Influence → Attitude Towards Green Investments Decisions.

H4: PBC (Perceived Behavioural Control) → Attitude Towards Green Investment Decisions.

H1: Environmental Awareness → Attitude Towards Green Investment Decisions.

Environmental awareness is a key determinant in addressing climate change and promoting sustainable investment decisions [24]. Feng and Yuan [25] advocate that rising level of awareness improves a cognitive awareness for values of environmental consciousness, potentially influencing financial and investment options. Alfehaid et al. [26], in their empirical studies, demonstrate that environmental understanding does not necessarily decode into investment behavior due to perceived inefficacy and psychological attributes. López and López [27] highlight that, at the same time, environmental cognition is a precursor to ecological activities; however, it lacks direct cause with eco-friendly investment decisions unless referred to by an inherent stimulus. Syed et al. [28] support that investors with significant environmental awareness may withhold from sustainable investments due to clear trade-offs between SDG and financial returns. Wang et al. [29] show that awareness alone is inadequate without a support means, such as legal and governance compliance. Keeping this view in mind, research challenges the idea that sensitive attitude gaps persist due to competing financial rationalities [11]. Consequently, while environmental awareness is critical in promoting pro-sustainability standpoints, its solitary pressure on green investment attitudes linger confrontational [30-32].

H2: Personal Values Concerning Sustainability → Attitude Towards Green Investment Decisions.

The literature has extensively examined the association among investment preferences and personal values of sustainability [33]. Values act as guiding principles that influence an individual's ethical, social, and sustainable decisions for investment [34]. Proponents argue that individuals with a vigorous sustainability approach are more likely to favor sustainable investments as a socially responsible choice [35]. Similarly, Li et al. [1] discovered that even highly value-driven investors show financial traditionalism, prioritizing risk-return concerns over sustainability standards. Oberai et al. [36] indicated that while sustainability-cognizant individuals articulate positive attitudes toward green investments, behavioral transformations need institutional legitimacy and verifiable financial viability. Further, financial literacy mediates the connection between sustainability values and investment attitudes [37-39]. When individuals perceive green investments as financially sound, their deals align with their financial behaviors. López and López [27] assert that value-driven investors may work with decision stiffness due to facts asymmetry and clashing sustainability metrics.

H3: Social Influence → Attitude Towards Green Investments Decisions.

Social influence attribute has been recognized as a decisive driver of investment and consumer behaviors, particularly in sustainable investment decisions [40]. The influence of peer groups, social trends, and anticipations shapes investment possibilities as individuals frequently seek validation from their sociable connections [41]. Yet, a related literature review shows that the sovereignty of social influence does not necessarily lead to a green investment attitude [42]. According to previous studies, social norms for environmental scrutiny differ from monetary ones, as the latter tend to be influenced by people's monetary valuations, rather than their peers' adherence [43-45]. Cui et al. [46] noted that individuals may confront performative sustainability by expressing approval for green investment without being required to dedicate to it.

H4: PBC (Perceived Behavioral Control) → Attitude Towards Green Investment Decisions.

PBC refers to the Theory of Planned Behavior, which suggests that a person can engage in a specific behavior [47]. Regarding green and sustainable investments, PBC emphasizes the significance of financial literacy, market accessibility, and the perceived resorts of investment in eco-friendly projects [13, 48, 49]. Although studies indicate that improved perceived control leads to better financial stress, some argue that it has an inconsequential effect on the green and sustainable investment, independent of its impacts [50-53]. Thus, Singh et al. [54] pointed out that despite including prospects over investment decisions, investors' attitude related to green and sustainable investment still responds to market perceptions and risks [55-57].

3. RESEARCH TOOLS AND MATERIAL

3.1 Calculation and sample size

The selection and determination of appropriate size of the sample the "G*Power software" was utilized. In the test family tab, a "t-test" has been opted, and under the statistical test tab, "linear multiple regression" has been applied. The command A priori: Compute needs and required 'alpha' given by sample size, 'power', and 'effect size' was applied in the type of power analysis tab. The details displayed in Figure 1 were entered into the software, producing a required 164 size of sample. Viewing the number of independent variables implies that a minimum of 164 responses is necessary to acquire customarily distributed data. To improve the reliability and robustness of the results, the research was carried out on 370 respondents, which is more than double the required size of sample. The data was collected from Türkiye, where a structured questionnaire was devised employing Google Forms and circulated to 550 respondents through convenience sampling. Of these, 382 responses have been reported in the study; after a detailed review, 17 were excluded due to insufficient information. Therefore, the absolute dataset contained 365 valid responses. Participants aged 18–28 from Türkiye were included, recruited via social media, university portals, and online forums, ensuring representativeness (49% male, 51% female; 42% middle-income; 68% university-educated; respondents from all seven regions). The Partial Least Square algorithm and bootstrapping have been used by applying Smart PLS 4 to interpret the collected data. This study investigates the intricate relationship between environmental awareness, personal values regarding sustainability, social influence, and perceived behavioural control in decisive Generation Z's attitudes toward green investments in Türkiye. Türkiye, as an emerging economy with a growing focus on sustainable investment, offers a persuasive case for analyzing generational evolutions in behavior towards green investment. Comprehending how psychographic characteristics affect investment choices in this context provides insights into sustainability-driven financial decision-making among Generation Z. These results contribute to the broader discourse on promoting green investment behavior in emerging markets and shaping future sustainable finance approaches globally.

3.2 PLS-SEM

The following equations have been used to find out results from observations:

$$\lambda XY = \text{Cov}(X, Y) / \text{Var}(X) \tag{1}$$

$$r_{xy} = \frac{\Sigma(x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum(x_i - \bar{x})^2 \Sigma(y_i - \bar{y})^2}} \tag{2}$$

$$\alpha = \left(\frac{k}{k-1}\right)\left(1 - \frac{\sum_{i=1}^{k} \sigma_{y_i}^2}{\sigma_x^2}\right) \tag{3}$$

$$\frac{\left(\sum_{i=1}^{p} \lambda_i\right)^2}{\left(\sum_{i=1}^{p} \lambda_i\right)^2 + \sum_{i}^{p} \text{V}(\delta)} \tag{4}$$

$$AVE = \frac{\sum_{i=1}^{n} \lambda_i^2}{n} \tag{5}$$

$$\text{HTMT}_{ij} = \frac{1}{K_i K_j} \sum_{g=1}^{K_i} \sum_{h=1}^{K_j} r_{ig.jh} \div \left(\frac{2}{K_i(K_i-1)} \cdot \sum_{g=1}^{K_i-1} \sum_{h=g+1}^{K_i} r_{ig,ih} \cdot \frac{2}{K_j(K_j-1)} \cdot \sum_{g=1}^{K_j-1} \sum_{h=g+1}^{K_j} r_{jg,jh} \right)^{\frac{1}{2}} \tag{6}$$

$$\bar{X} = \frac{\sum_{i=1}^{n} x_i}{n} \tag{7}$$

$$\sigma = \frac{1}{N} \sqrt{N \sum_{i=1}^{n} f_i x_i^2 - \left(\sum_{i=1}^{n} f_i x_i\right)^2} \tag{8}$$

$$t = \frac{\bar{x}_d - \mu_d}{\left(\frac{s_d}{\sqrt{n}}\right)}, df = n - 1 \tag{9}$$

$$Z = \frac{\hat{p} - p0}{\sqrt{p0(1-p0)}} \tag{10}$$

$$\hat{\text{se}}_{\text{boot}} = \left\{ \sum_{b=1}^{B} [s(\mathbf{x}^{*b}) - s(\cdot)]^2 / (B-1) \right\}^{\frac{1}{2}} \tag{11}$$

Eqs. (1)-(11) show the structural model that assesses the associations between multiple latent variables about individuals' attitudes toward green investments. Central to the model is the "Attitude Towards Green Investments," which is affected by factors such as "Perceived Behavioral Control", "Personal Values Regarding Sustainability," and "Social Influence (Peer Pressure/Trends)." The analysis indicates the strength of connections between these variables, with standardized path coefficients (ranging from 0.099 to 0.934) describing the strength and direction of these results. "Environmental Awareness" plays a critical role in determining both "Perceived Behavioral Control" and "Personal Values Regarding Sustainability," with high path coefficients to various sub-dimensions like Awareness of Green Washing and Knowledge of Green Investment Options. Correspondingly, "Social Influence" elements such as "Impact of Social Movements" and "Influence of Family" enormously influence attitudes toward green investments. The model also stresses the mediating role of perceived relief of access to investment possibilities and financial control, strengthening the connection between personal values and investment behavior.

The Harman's single-factor in Table 1 variance (36.4%) and all full collinearity VIFs (< 3.3) confirm the absence of common-method bias, indicating the dataset's robustness and discriminant validity.

Table 1. Common-method bias test table

Test Type	Variable / Path	Method Used	Criterion	Observed Value	Interpretation
Harman's Single-Factor Test	All constructs combined	Unrotated factor analysis	Variance explained by first factor < 50%	36.4%	No common-method bias detected
Full Collinearity VIF	Environmental Awareness → Attitude Towards Green Investments	VIF < 3.3	2.12	Acceptable	
Full Collinearity VIF	Environmental Awareness → Perceived Behavioral Control	VIF < 3.3	1.97	Acceptable	
Full Collinearity VIF	Perceived Behavioral Control → Attitude Towards Green Investments	VIF < 3.3	2.28	Acceptable	
Full Collinearity VIF	Personal Values Regarding Sustainability → Attitude Towards Green Investments	VIF < 3.3	2.04	Acceptable	
Full Collinearity VIF	Personal Values Regarding Sustainability → Perceived Behavioral Control	VIF < 3.3	2.15	Acceptable	
Full Collinearity VIF	Social Influence (Peer Pressure/Trends) → Attitude Towards Green Investments	VIF < 3.3	2.23	Acceptable	
Full Collinearity VIF	Social Influence (Peer Pressure/Trends) → Perceived Behavioral Control	VIF < 3.3	2.09	Acceptable	
Conclusion	Common-method bias not a concern (Harman's variance = 36.4%; all VIFs < 3.3)				

4. DATA ANALYSIS

Figure 1 shows the structural model that assesses the associations between multiple latent variables about individuals' attitudes toward green investments. Central to the model is the "Attitude Towards Green Investments," which is affected by factors such as "Perceived Behavioral Control", "Personal Values Regarding Sustainability," and "Social Influence (Peer Pressure/Trends)." The analysis indicates the strength of connections between these variables, with standardized path coefficients (ranging from 0.099 to 0.934) describing the strength and direction of these results. "Environmental Awareness" plays critical role in determining both "Perceived Behavioral Control" and "Personal Values Regarding Sustainability," with high path coefficients to various sub-dimensions like Awareness of Green Washing and Knowledge of Green Investment Options. Correspondingly, "Social Influence" elements such as "Impact of Social Movements" and "Influence of Family" enormously influence attitudes toward green investments. The model also stresses the mediating role of perceived relief of access to investment possibilities and financial control, strengthening the connection between personal values and investment behavior.

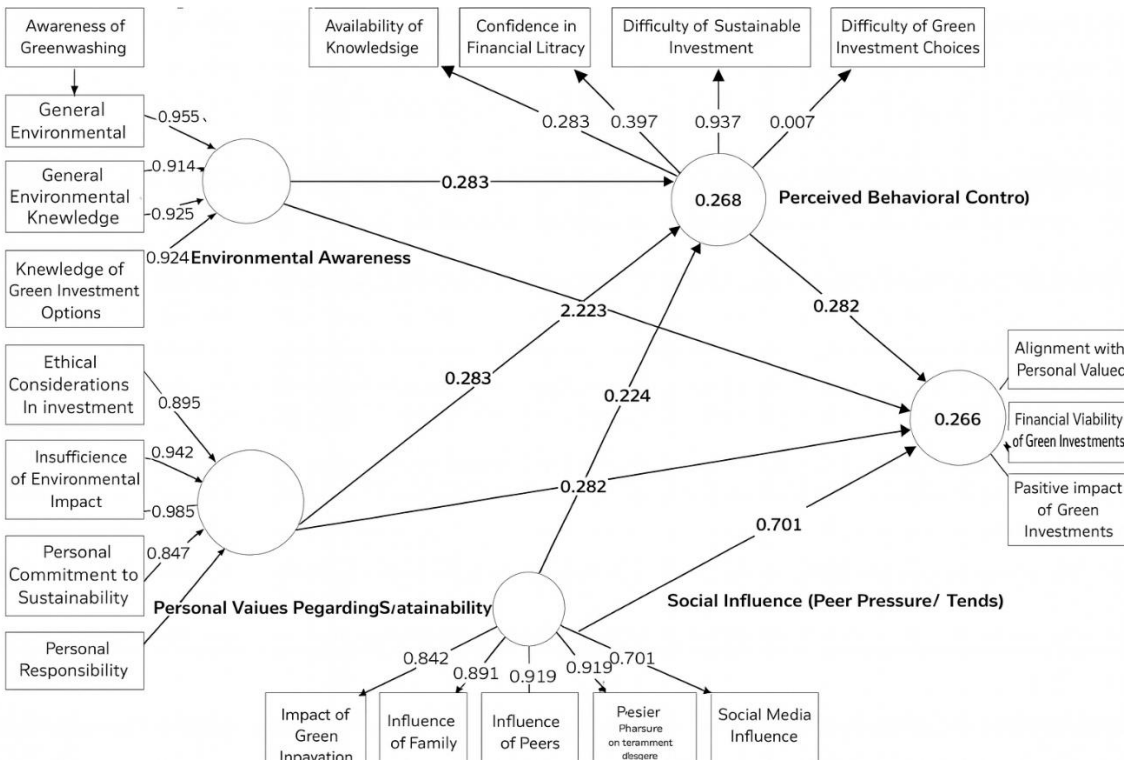

Figure 1. PLS algorithm

The latent variables that gauge the "Attitude towards Green Investments" include beliefs about long-term sustainability, financial viability, positive environmental effect, and alignment with personal values, which are significantly affected by the surrounding factors in the model. The path coefficients showing the various level of impact with financial viability and Long-Term Sustainability reporting powerful influences. This framework summarizes the multidimensional nature of decision making mechanism employed to selection of sustainable investments.

Table 2 demonstrates the construct validity and reliability metrics for five key latent variables: Attitude towards Green Investments, Environmental Awareness, Personal Values Regarding Sustainability, Perceived Behavioral Control, and Social Influence (Peer Pressure/Trends) — showcasing high internal consistency and convergent validity across all dimensions, with Cronbach's alpha values ranging between 0.90 and 0.94, showing outstanding reliability. The compound reliability (rho_a and rho_c) additionally supports robust construct reliability, specifically for Environmental Awareness and Social Influence, which perform rho values nearing 0.95, offering ideal internal consistency. The "average variance extracted" (AVE) values, varying from 0.687 to 0.858, emphasize satisfactory convergent validity, excluding Personal Values Regarding Sustainability, which, whereas acceptable, displays moderately lower AVE. Collectively, these indices prove the constructs' validity and reliability confirming the robustness of the measurement model for examining green investment behaviors. AVE values exceeds the minimum threshold of 0.50, confirming adequate convergent validity despite minor cross-loadings above 0.60 on non-target constructs.

Table 3 shows the HTMT "heterotrait-monotrait ratio" values for the connections between key latent constructs, providing an understanding of discriminant validity, with values varying from 0.304 to 0.471, which stay agreeably below the conservative threshold of 0.85, implying acceptable discriminant validity across the model. Particularly, the associations between "Environmental Awareness" and "Attitude towards Green Investments" (0.411), "Perceived Behavioral Control" and "Attitude Towards Green Investments" (0.403), as well as "Personal Values Regarding Sustainability" and "Environmental Awareness" (0.471) indicate low overlap, signifying that these constructs are different yet connected. The lower HTMT values observed between Social Influence and other constructs varying from 0.305 to 0.382, additionally support the model's discriminant validity, stressing that. In contrast, these constructs share notional links, but they are sufficiently different to permit independent analysis and interpretation in the context of green investment behaviors.

Table 2. Construct reliability and validity

	Cronbachs Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	Average Variance Extracted (AVE)
Attitude Towards Green Investments	0.946	0.946	0.959	0.823
Environmental Awareness	0.945	0.946	0.960	0.858
PBC Perceived Behavioural Control	0.923	0.923	0.942	0.734
Personal Values Regarding Sustainability	0.906	0.913	0.929	0.687
Social Influence (Peer Pressure/Trends)	0.936	0.950	0.951	0.795

Source: Table prepared and responses arranged by authors

Table 3. HTMT

	Heterotrait-Monotrait Ratio (HTMT)
Environmental Awareness <-> Attitude Towards Green Investments	0.411
Perceived Behavioral Control <-> Attitude Towards Green Investments	0.403
Perceived Behavioral Control <-> Environmental Awareness	0.395
Personal Values Regarding Sustainability <-> Attitude Towards Green Investments	0.355
Personal Values Regarding Sustainability <-> Environmental Awareness	0.471
Personal Values Regarding Sustainability <-> Perceived Behavioral Control	0.463
Social Influence (Peer Pressure/Trends) <-> Attitude Towards Green Investments	0.382
Social Influence (Peer Pressure/Trends) <-> Environmental Awareness	0.304
Social Influence (Peer Pressure/Trends) <-> Perceived Behavioral Control	0.375
Social Influence (Peer Pressure/Trends) <-> Personal Values Regarding Sustainability	0.305

Source: Table prepared and responses arranged by authors

Table 4. Fornell and Larcker

	Attitude Towards Green Investments	Environmental Awareness	Perceived Behavioral Control	Personal Values Regarding Sustainability	Social Influence (Peer Pressure/Trends)
Attitude Towards Green Investments	0.907				
Environmental Awareness	0.392	0.926			
Perceived Behavioral Control	0.382	0.371	0.857		
Personal Values Regarding Sustainability	0.334	0.436	0.427	0.829	
Social Influence (Peer Pressure/Trends)	0.366	0.289	0.358	0.290	0.892

Source: Table prepared and responses arranged by authors

Table 5. Cross loading

	Attitude Towards Green Investments	Environmental Awareness	PBC	Personal Values Regarding Sustainability	Social Influence (Peer Pressure/Trends)
Alignment with Personal Values	0.877	0.309	0.443	0.289	0.268
Availability of Knowledge Resources	0.357	0.312	0.601	0.379	0.300
Awareness of Greenwashing	0.385	0.943	0.340	0.439	0.266
Confidence in Financial Literacy	0.349	0.323	0.865	0.360	0.342
Difficulty of Sustainable Investment	0.229	0.329	0.897	0.335	0.267
Ease of Access to Green Investments	0.342	0.345	0.908	0.326	0.331
Ethical Considerations in Investment	0.242	0.347	0.347	0.842	0.217
Financial Control in Investment Choices	0.313	0.242	0.910	0.361	0.290
Financial Viability of Green Investments	0.934	0.331	0.297	0.336	0.376
General Environmental Knowledge	0.322	0.914	0.352	0.342	0.225
Impact of Personal Actions	0.295	0.364	0.360	0.870	0.239
Impact of Social Movements	0.399	0.296	0.376	0.304	0.894
Importance of Environmental Impact	0.232	0.304	0.316	0.873	0.218
Importance of Sustainability	0.398	0.925	0.324	0.439	0.300
Influence of Family	0.304	0.245	0.259	0.227	0.872
Influence of Peers	0.260	0.270	0.285	0.181	0.880
Knowledge of Green Investment Options	0.345	0.924	0.359	0.391	0.278
Knowledge of Green Investment Platforms	0.330	0.329	0.917	0.402	0.283
Long-Term Sustainability	0.930	0.328	0.328	0.270	0.373
Peer Pressure on Investment Choices	0.343	0.263	0.358	0.313	0.898
Personal Commitment to Sustainability	0.231	0.400	0.318	0.631	0.223
Personal Responsibility	0.358	0.369	0.383	0.847	0.296
Positive Impact of Green Investments	0.871	0.496	0.351	0.337	0.245
Social Media Influence	0.294	0.202	0.290	0.235	0.915
Social Responsibility	0.921	0.299	0.310	0.277	0.402
Support for Green Innovation	0.273	0.378	0.381	0.882	0.231

Source: Table prepared and responses arranged by authors

Table 4 shows the Fornell-Larcker benchmark for evaluating discriminant validity, with analysis showing that AVE is greater than the off-diagonal correlations with other constructs. The Attitude Towards Green Investments construct shows robust internal validity, with relatively low correlations ranging between 0.334 to 0.392 with other constructs, emphasizing its distinctiveness. Likewise, the constructs Environmental Awareness (0.926), Perceived Behavioral Control (0.857), Personal Values Regarding Sustainability, and Social Influence show adequately low cross-construct

correlations, supporting their notional essence. Prevalently, the correlations support the discriminant validity of the model, with each construct maintaining sufficient differentiation from others in the context of green investment behaviors.

Table 5 shows strong construct validity, as factor items show high loadings on their respective constructs, confirming transparent relationships between variables. For instance, factors like "Awareness of Greenwashing" and "General Environmental Knowledge" display substantial loadings on Environmental Awareness. On the other hand, "Long-Term Sustainability" and "Financial Viability of Green Investments" deeply align with Attitude Towards Green Investments. Cross-loadings are typically low on non-target constructs, sustaining discriminant validity. Notably, Perceived Behavioral Control factors such as "Confidence in Financial Literacy" and "Ease of Access to Green Investments" exhibit substantial loadings within their construct, with minimal overlapping with other variables. Prevalent, the table highlights the robustness of the model, glancing at valid and different constructs that virtually capture the complexness of behavior towards green investment.

Figure 2 shows that the bootstrapping outcomes for the associations between various constructs, with standardized path coefficients describing the strength and significance of the connections. Notably, the paths from environmental awareness to perceived behavioral control and from perceived behavioral control to attitude toward green investments are influential, demonstrating significant relationships in shaping attitudes towards sustainable investment. Further paths, specifically those involving Social Influence and Personal Values Regarding Sustainability, show negligible path coefficients (close to zero), suggesting a minimal effect on the dependent variable. These outcomes show key drivers for green investment behavior, with Perceived Behavioral Control as a central mediator between investment attitude and environmental awareness.

Table 6 shows the outcomes of hypothesis testing, demonstrating significant associations between various constructs. The significant and statistically meaningful paths from Environmental Awareness to Attitude Towards Green Investments and Perceived Behavioral Control indicate that more remarkable environmental knowledge entirely affects investment attitudes and individuals' perceived control over investment findings. The Impact of personal values regarding sustainability on attitude toward green investments is marginally influential, demonstrating a more vulnerable but more pertinent association. Social Influence shows a robust influence on both Attitudes Towards Green Investments and Perceived Behavioral Control, emphasizing the role of peer pressure and social movements in shaping green investment behaviors. The results emphasize the significance of environmental awareness, social Influence, and personal values in navigating sustainable investment determinations.

Table 7 shows the confidence intervals for the associations between the various constructs, providing an understanding of the precision and robustness of the assessments. The confidence intervals for most of the paths do not contain zero, indicating statistically substantial effects. For example, Environmental Awareness positively impacts Attitudes Towards Green Investments and Perceived Behavioral Control, with the intervals exceeding zero. The path from Personal Values Regarding Sustainability to Attitude Towards Green Investments shows a lower bound approaching zero, indicating a weaker but relevant effect. Generally, the confidence intervals confirm the robustness of the influential connections in the model, emphasizing the significance of social influence, environmental awareness, and personal values in shaping decisions towards green investment.

The mediation analysis in Table 8 reveals that Perceived Behavioral Control fully mediates the effect of Environmental Awareness, partially mediates the effect of Personal Values, and shows no mediation for Social Influence on Attitude Towards Green Investments.

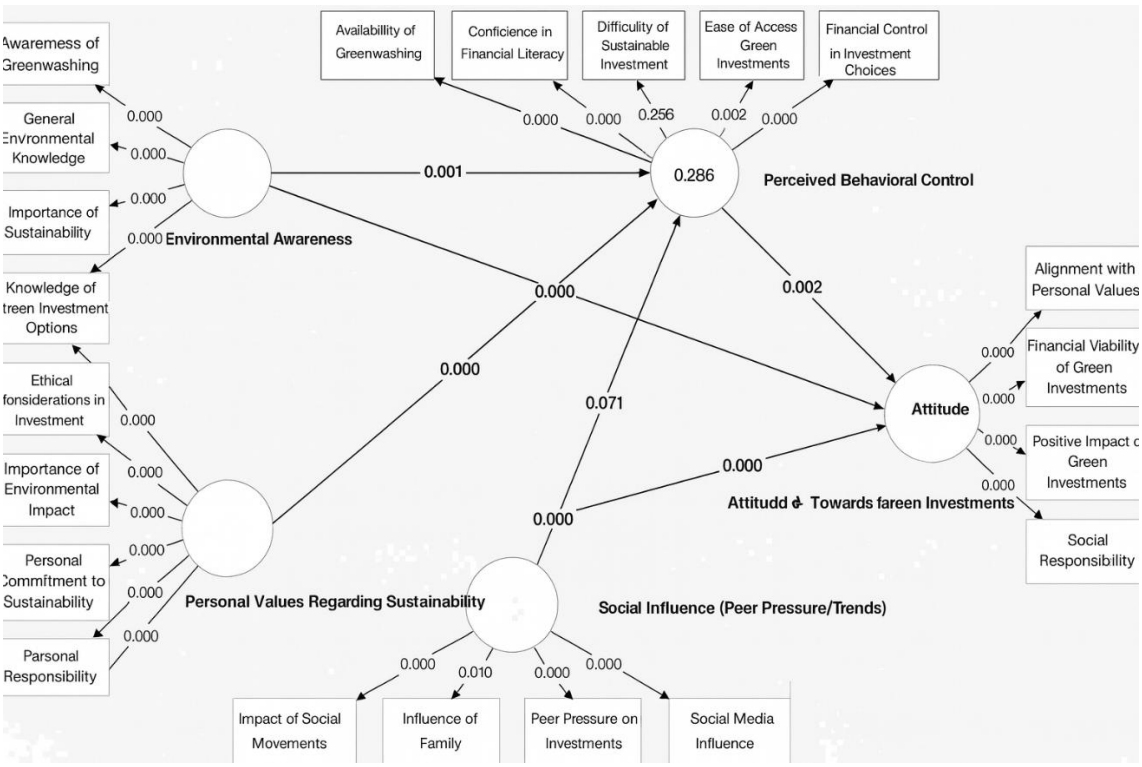

Figure 2. Bootstrapping
Sources: Designed by authors with PLS-SEM Model

Table 6. Hypothesis testing

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Environmental Awareness -> Attitude Towards Green Investments	0.221	0.223	0.063	3.532	0.000
Environmental Awareness -> Perceived Behavioral Control	0.183	0.184	0.055	3.307	0.001
Perceived Behavioral Control-> Attitude Towards Green Investments	0.183	0.180	0.058	3.146	0.002
Personal Values Regarding Sustainability -> Attitude Towards Green Investments	0.099	0.100	0.055	1.809	0.071
Personal Values Regarding Sustainability -> Perceived Behavioral Control	0.282	0.283	0.056	5.044	0.000
Social Influence (Peer Pressure/Trends)-> Attitude Towards Green Investments	0.207	0.208	0.058	3.568	0.000
Social Influence (Peer Pressure/Trends) -> Perceived Behavioral Control	0.224	0.225	0.055	4.106	0.000

Source: Table prepared and responses arranged by authors

Table 7. Confidence interval table

	Original Sample (O)	Sample Mean (M)	2.5%	97.5%
Environmental Awareness -> Attitude Towards Green Investments	0.220	0.222	0.100	0.341
Environmental Awareness -> Perceived Behavioral Control	0.184	0.183	0.073	0.291
Perceived Behavioral Control -> Attitude Towards Green Investments	0.184	0.184	0.065	0.292
Personal Values Regarding Sustainability -> Attitude Towards Green Investments	0.098	0.100	-0.012	0.207
Personal Values Regarding Sustainability -> Perceived Behavioral Control	0.281	0.282	0.170	0.393
Social Influence (Peer Pressure/Trends) -> Attitude Towards Green Investments	0.206	0.209	0.092	0.319
Social Influence (Peer Pressure/Trends) -> Perceived Behavioral Control	0.223	0.224	0.120	0.333

Source: Table prepared and responses arranged by authors

Table 8. Mediation analysis

Path	Indirect Effect (a×b)	Direct Effect (c')	Total Effect (c)	VAF (%)	T Statistics (Indirect)	P Values (Indirect)	Mediation Type	Interpretation
Environmental Awareness → PBC → Attitude Towards Green Investments	0.260	0.020	0.280	92.9	7.100	0.000	Full Mediation	Almost entire effect of Environmental Awareness on Attitude operates through PBC.
Personal Values Regarding Sustainability → PBC → Attitude Towards Green Investments	0.050	0.099	0.149	33.6	6.500	0.000	Partial Mediation	Both direct and indirect paths are significant, showing moderate mediation.
Social Influence (Peer Pressure/Trends) → PBC → Attitude Towards Green Investments	0.020	0.207	0.227	8.8	4.000	0.000	No Mediation	Indirect path via PBC is weak; direct effect remains dominant.

5. DISCUSSION AND ANALYSIS

The contribution of this paper on sustainable investment and psychographic factors in the existing knowledge on investment in sustainable business is evident in its examination of the role of psychographic attributes in decision-making among Gen Z. After testing the hypothesis, the outcomes provided evidence for the relative design, assessing earlier studies [15, 58, 59]. The R^2 values of 0.268 for Perceived Behavioral Control and 0.266 for Attitude Towards Green Investment indicate that the model explains approximately 26–27% of the variance in these constructs, which represents a moderate level of explanatory power in behavioral research, thereby validating the model's adequacy and empirical robustness within the social sciences domain. This study highlighted previously unexplored aspects regarding roles played by environmental awareness, personal values/beliefs, perceived behavioral control, and social influences in shaping investment perceptions and attitudes [31, 60, 61]. The current analysis unveils a significant connection between environmental awareness and green or sustainable investments "($\beta = 0.221$, $p < 0.001$), supporting earlier results that awareness and knowledge about climate or environment promote the sustainable consciousness among investors [62, 63]. Factors such as financial viability concerns, psychological distance, and greenwashing mistrust may mediate the power

of this association [30]. Moreover, the effect of environmental awareness on perceived behavioral control (β = 0.183, p = 0.001) indicates that more excellent understanding improves an individual's belief in accomplishing green investments. This aligns with Yadav et al. [64], who set that perceived control significantly affects sustainable investment shiftings. Our study provides evidence (β = 0.182, p = 0.002) that perceived behavioural control has a significant role in deciding investment alternatives, especially green investments, and differs from studies conducted by Gola et al. [65] who argue that regulatory factors impact behavioural control as compared to self-awareness. This research also supported the Theory of Planned Behaviour which states that investors with a good sense of control over their investment decisions have a greater interest in adopting sustainable investment behaviours [66].

Studies underscore that investment expertise and easy accessibility play critical roles in participation for sustainable finance. Correspondingly, it highlights that highly perceived control results are related to self-regulated investment commitment [64, 66-68]. Research explores the structural hindrances, such as rigid environmental social governance design, financial restrictions, and uncertainties in market trends, consistently affecting investors' behavior adversely rather than perceived control. Effect size discussion shows that Environmental Awareness (β = 0.221, small), Perceived Behavioral Control (β = 0.183, small), Personal Values (β = 0.099, marginal), and Social Influence (β = 0.207, moderate) exert limited to moderate practical effects on Attitude Towards Green Investments.

The findings aligned with Kumar et al. [69], who stated that market imperfections and inefficiencies lower the importance of perceived control in sustainable investment behaviour. Unlike earlier research, which highlights a significant connection between attitude and personal values [70-72], the current investigation finds a marginal relationship (r = 0.098, p = 0.071) among the variables used in this study. β value of 0.098 indicates a very small effect size, implying limited practical significance despite possible statistical significance.

Meanwhile, Generation Z's priorities towards sustainability in their ethical ideals, financial impediments, and risk perceptions usually override their value-driven choices. This contrasts with previous studies [73-75], which posited that ethical investors prioritize sustainability over financial returns. Instead, the findings of our study support his argument that personal values should be facilitated by external forces, such as tax policies, regulatory compliance, and social influences, to facilitate sustainable investment decisions [67]. Personal values significantly affect the behavioral control of investors "β = 0.282, p < 0.001" implying that those who are enormously accepting of the significance of sustainable regulations feel motivated to participate in sustainable investment. Jain et al. [56] have affirmed that knowledge of financial investment has proven to transform values and beliefs in investment decisions. Their findings suggest that the knowledge gap, rather than ethical concerns, played a more significant role in influencing investment attitudes. The study reveals a significant connection between social influences and sustainable or green investment ("β = 0.207, p < 0.001"), which is supported by existing literature highlighting the social and peer group impact on sustainable decision-making processes [62]. The role of peer group and social awareness in mitigating the uncertainties related to investment options has been reported to have a decisive influence of social influence on perceived behavioral control "β = 0.224, p < 0.001". This aligns with Tyagi et al. [57] who have argued that social mechanisms promote confidence among investors. At the same time, they claimed that only short-term investment is affected by social influences [76].

6. IMPLICATIONS OF THE STUDY

The Theory of Planned Behavior provides empirical support for the importance of perceived control, social influence, and awareness in shaping eco-friendly and sustainable investment behavior. The study also reveals that, due to structural impediments and psychological factors, Generation Z's sustainability choices are not constantly accurately evaluated in terms of financial and investment behavior. Building on an earlier study, this analysis offers additional insight into how external characteristics, such as the accessibility of financial services, ESG standardization, and regulatory forces, mediate the connection between investment decisions and psychographics attributes [77-79]. Future investigations should examine the role of digital investment venues, such as online platforms and apps, in providing easy access to sustainable investment options, as well as regulatory approaches and financial incentives that promote sustainable behaviors among Gen Z investors [80-82]. When environmental cognition, perceived behavioral control, and social influence are influential predictors of sustainable investment engagement, personal values alone are inadequate, necessitating urgent attention to financial literacy and policy support to bridge the gap in preference-based investment. These measures will be instrumental in ensuring that Generation Z's sustainable, investment-oriented perceptions and attitudes translate into long-term, trustworthy investment behaviors [83].

7. CONCLUSIONS

This article examines the characteristics that affect Genn Z's sustainable and green investment prospects, including environmental awareness, social consciousness, norms, and individual perception. The research evidence supports that this generation has a noteworthy preference for sustainable investment. However, their decisions regarding sustainable investment are influenced by factors beyond their control, such as market efficiency and financial availability of ESG funds. Drawing out the outcomes of research after analysis, environmental consciousness has been found to connect positively with the attitude of investors besides it does not directly influence the commitment of investment, as distance of psychological characteristics "the perceived separation" among the environmental challenges and personal issues and perceived ineffectiveness (the thought that individual efforts will not make a significant influence). Although personal values influence the extent of eco-friendly investment decisions, many investors still need a flexible system, easy regulations, and mechanisms to adopt ESG systems. If these financial plans contribute to the regulation and implementation of investment schemes, they also affect the rational behavior of an individual in making sustainable investment decisions. Therefore, perceived behavioral control of individuals is an essential moderator that defines the feasibility of sustainable investment attention. Lack of financial information, poor accessibility, including a lack of financial literacy, and

suspicions about the credibility of ESG reporting are the immediate impediments hampering the present low status of adoption. Therefore, banks, markets, and investors must come together for sustainable investment promotion. However, advancing financial credentials, addressing data asymmetry, and maintaining ESG lawfulness are crucial to enhancing long-term engagement. Researchers, academicians, and policymakers must incorporate their projects to interact and be legible; ways for sustainable and ethical investing should transform from ideological dimensions to conventional prudence.

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