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SUSTAINABLE INVESTING AND FINANCIAL SUCCESS: ESG INTEGRATION EVIDENCE

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Abstract

The purpose of this research is to explore the standards and methods for evaluating ESG performance and the trade-offs perceived between ESG objectives and financial performance. Analyze the inclusion of Environmental, Social, and Governance (ESG) factors in investment decisions. This paper aims to collect various approaches and consider them in terms of portfolio size and cash flow. The primary objectives are to determine whether applying ESG criteria enhances or diminishes financial performance, and to understand how investors perceive ESG characteristics in relation to their capacity to reduce financial risk. The report speaks to the challenges Canada has in making ESG more fully integrated. These issues include concerns over undermining international standards, financial implications, and data accessibility. The paper examines investors' views on ESG benchmarks' long-term success predictability and short-term performance consistency. Employ a PLS model - Five ESG awareness, integration, and investment financial effects hypotheses were tested. The report emphasizes understanding ESG standards, incorporating ESG strategies into investment strategies, and addressing ESG implementation challenges. The study's structural equation model shows that ESG norms and practices strongly influence investment decisions and performance. Variables with large path coefficients are positively correlated. Decision-makers should build resilient portfolios, align financial and sustainability goals, and integrate ESG. The findings help public policymakers, asset managers, and researchers navigate sustainable finance's changing landscape.

Keywords: *Corporate Governance, ESG Integration, Financial Performance, Investment Strategies, Sustainability*

1. Introduction

The integration of ESG (Environmental, Social, and Governance) factors into investment decisions has transformed many areas of finance in recent years. The move also reflects a growing awareness that standard financial metrics cannot predict investment longevity or how long brokers can charge clients hidden fees. (Ahmad et al., 2024). Institutional and retail investors know that ESG criteria broaden their investment risks and opportunities. ESG encompasses more than finance. Characteristics of environmental factors relate to a company's impact on the physical environment, including its carbon footprint, energy consumption and activities intended to alleviate or reverse the damage. By way of example, social factors address the relationship a company has with employees, suppliers, customers, or even other stakeholders, as well as the communities in which it works (Zong & Guan, 2024). Governance factors include leadership quality, board diversity, executive pay, audits/internal controls, and shareholder rights. It seeks a more complete picture of its social and environmental impact and resilience.

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Investor visibility and understanding of these factors have been crucial to ESG integration until now. Investors must be aware of ESG criteria because investment solutions will depend on higher standards and judgment among these professionals in judging who is more or less related/material to financial results. Investors' collective experience reading and discussing ESG terminology shapes their individual investment decision-making choices. (Yu et al., 2021). Identifying the ESG factors most relevant to investment goals allows investors to do so. As investors become more aware of ESG criteria, they use different methods to incorporate them into their investments. In conclusion, one must narrow the ESG category through negative screening (excluding companies with poor ESG performance from a portfolio), positive screening (proactive selection criteria that help shareholders and clients find best-effort on board or better-practice performers), etc. Confident investors may also push their investments to improve ESG performance. Sustainability reports, ESG ratings, and third-party reviews must help implement such an approach. (Wiklund, 2023). Investors' ongoing adjustments to ESG-related information show that ESG integration in investment is dynamic. ESG integration's impact on financial performance is debated and researched. Some research suggests that integrating ESG factors can improve financial results by selecting higher-quality companies that are more likely to outperform over time, but tensions introduce noise and a wedge between short-term financial performance. Investors' perceptions about the financial realities of ESG integration are influenced by their past experiences and observations, as well as recent market trends. For example, businesses that rate highly for their ESG practices are assumed to be more adaptable in the face of regulatory pressure, market changes and potential reputational issues, which should help ensure longer-term success (Wanyan & Shang, 2022). Investors also want to understand how ESG performance affects their asset allocation decisions, the significance investors place on that relationship, and if/how they think about material risks associated with ESG factors.

With increasing attention to ESG integration, it is not uncommon for investors to face many obstacles that make it challenging to implement these criteria into their portfolios effectively. One issue is that ESG data aren't always available and reliable. Investors may be uncertain due to the lack of standardized measures and provider ESG ratings. ESG research and integration costs, such as specialized tools/expertise, may also affect smaller investors. Additionally, regulatory restrictions and market forces make ESG integration a labyrinth (Uz Zaman et al., 2021). While dealing with misinformation and uncertainty about ESG reporting and assessment best practices. The importance of ESG factors in investment decisions changes how investors view financial performance and sustainability. ESG factors are seen by other investors as part of a holistic investment strategy that can generate long-term returns. ESG factors may be weighted more than financial metrics by such investors to indicate how well a company can adapt to new risks or opportunities. Some consider ESG factors important but not central to investment analysis; different portfolios will weigh their importance. (Barbieri et al., 2017). As sustainable finance advances, investor sentiment toward ESG and the desire for those parameters to become mandatory investment analysis points to larger market trends.

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This study examines how investors use ESG and how it affects financial performance and asset sustainability. This study examines ESG awareness and understanding, current strategies for integrating ESG into investments, investors' perspectives on financial performance attributable to these issues, barriers to actual adoption or integration within investment portfolios, and how critical an analysis of this nature within alternatives can be. This research will examine how ESG integration is implemented and the motivations and challenges of carbon-sensitive or philanthropically motivated institutions by surveying these investors.

The survey will assess investors' knowledge of ESG criteria and how often they research them before investing. Investment sources like reports read, media, and advisor interactions sought will be examined to understand ESG factors (Esrar et al., 2023). Understanding these sides helps determine how well-positioned investors are to incorporate ESG criteria into their investment policies. This research will also examine how investors use ESG factors to make investment decisions. That includes looking at what tools and metrics they use to measure ESG performance, how managers balance financial returns and ESG priorities (or whether a trade-off is needed), and whether fund/asset managers make incremental changes after learning more about environmental conditions. The study aims to catalogue these tools and tactics to show how investors use ESG criteria and possibly influence their decisions.

How ESG integration affects financial performance is another key topic. It will ask investors if ESG integration has had any positive or negative effects on their investments. It will also examine how investors compare ESG-focused investments to traditional investments in terms of risk and return and how ESG performance affects portfolio asset allocation. The study will also examine investors' views on how ESG factors reduce financial risks and strengthen portfolios. Data, expense, regulations, and market disadvantages will be examined as ESG integration barriers. The survey will examine how these constraints affect investors' ESG inclusion in diversified portfolios and their methods (Gandhi et al., 2018). We need this analysis to find ways to improve ESG integration. Investors must incorporate effectively as input into mandate and tool development. Finally, the survey will examine how investors prioritize ESG factors over traditional financial metrics, what is most important for long-term benefits investing success, and whether short-term performance outweighs shareholder material justice. This survey will also examine how investors are changing their ESG approach and whether it should be required in investment analysis. This will illuminate the role of ESG factors in funding and whether sustainability is possible without financial performance. The paper offers a vital deep dive into ESG factor integration, its challenges and opportunities, and its effects on economic growth and sustainability (Li et al., 2023). In the fast-changing sustainable finance landscape, the findings will help investors, asset managers, policymakers, and academics balance financial profitability with social impact and environmental welfare.

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2. Literature Review

More evident than in academic and practical studies of ESG-integrated investor portfolios. Review the literature to determine how well ESG criteria are integrated into investors' decision-making, their impact on financial performance, and current challenges. Addy added that one must start somewhere, including investor knowledge and understanding of ESG criteria. Multiple studies have examined investor knowledge of ESG concepts and how it affects decision-making (Mascarenhas, 2018). While awareness of ESG has grown significantly in recent years (ESG funds and investment options were introduced nearly 30 years ago), there is still a lot of understanding at the deeper levels about each component of environmental, social, and governance factors. Confident investors, especially those with large institutional portfolios, understand these factors and how they affect financial performance. Others may only have a superficial understanding, relying on third-party ESG ratings and indices instead of digging deeper. This interpretation can lead to conflicting ESG Integration approaches, where some investors apply different percentage weights on E, S, and G based on their understanding or data availability, while others struggle to incorporate these parameters with a significant difference due to a lack of knowledge (Haddad et al., 2022).

The sources from which investors seek information about ESG factors also influence their understanding and support of ESG integration. A recent exodus of institutional investors suggests a financial disconnect between the available ESG data and what matters to the market. Academic literature also points out that more ratings, sustainability reports or media coverage about environmental responsibility (e.g., carbon disclosure) without further verification may provide undue confidence for investment decisions based on social preference rather than risk opportunities. Despite the proliferation of these ESG scores, grading agencies provide information of varying quality and consistency, which makes it more difficult to weigh up materiality or relevance. Research suggests directly engaging with companies (e.g., shareholder activism or corporate engagement) to gain more precise and sophisticated ESG views (Hoang et al., 2023). This approach, through engagements, enables investors to shape corporate behaviour and simply receive deeper insight into how ESG factors are being managed at the operational level.

The methods through which ESG is incorporated differ vastly between investor types and asset classes. Negative and positive screening, ESG integration at fundamental level 6, and active ownership have been discussed in the literature to identify best-in-class5. Negative screening—excluding companies with low ESG scores or in controversial sectors—is one of the oldest and most common ESG investing strategies (KP & Nayak, 2017). Negative screening, which avoids investments that don't meet socially conscious or ethical goals, can work, but it may exclude companies that are improving their ESG practices.

Positive screening and best-in-class selection seek ESG leaders. This strategy allows investors to incentivize sustainability best practices, encouraging sector stewardship. Finding real leaders is difficult because ES and G measurements can vary between companies or be interpreted differently (Lee et al., 2016). Others use ESG factors in fundamental analysis to

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assess the financial impacts of potential material concerns for companies. Large institutional investors will use this resource-intensive method, which requires extensive ESG and financial analysis.

Active ownership, including shareholder engagement and proxy voting, has become popular in recent years (Nguyen et al., 2023). This approach allows investors to use their capital market power to push companies toward better ESG practices and hold them accountable for sustainability promises. Active ownership affects how well investors communicate with company management and whether they listen to shareholders. The research also suggests that active ownership can improve corporate ESG practices, but it takes time and a clear engagement strategy.

Literature debates whether ESG integration affects financial performance. One possibility is that ESG integration boosts financial return. Another sees it as more complicated with short-term performance trade-offs. According to research, ESG-compliant companies have lower risk profiles, higher operational efficiency, and better long-term financial performance (Hagen et al., 2019). Regulation, resource efficiency, and board effectiveness affect financial performance as environmental and governance ESG factors. ESG's social component is harder to finance. Better employee, diversity, and community relations affect revenues more. According to the data, social factors, though convenient abstractions in our current reality constrained by rapid change, may lie invisibly downstream (as investments) where mature or governance-driven companies may have a slight edge in attracting and retaining top talent, ensuring customer loyalty over competitor focus on uniform shareholder return at any cost, even when contesting. Investors can balance short-term and long-term gains. Systematic competitive advantages and risk levels depend on ESG, but portfolio implementation is difficult. ESG data matters. ESG ratings vary by provider focus (environmental or governance), making it difficult for investors to evaluate a company's performance (Comoli et al., 2023). Companies not disclosing enough ESG practices, especially in emerging markets (a large part of our investment universe), exacerbate data coverage gaps. Higher ESG disclosure standards and stronger line performance proofs are suggested.

Research and implementation costs: Smaller investment managers may struggle to fulfill their fiduciary duty due to ESG integration's resource requirements. Smaller or resource-constrained investors may find complete ESG analysis expensive due to the tools and knowledge needed. Interacting with firms on ESG matters (with active ownership, for example) can be too expensive for investors with large diversified holdings. This is partly because ESG-focused investors prefer companies with deeper quality and governance. Some studies claim that long-term sustainable performance returns offset extra costs (Schulte & Hallstedt, 2018). ESG research and implementation can be costly for upfront business model implementation, which can hinder investors. By including ESG factors in investment decisions, regulatory bodies and market dynamics shape the trajectory. There is a fast rhythm in the maturation of ESG disclosure and reporting standards, with new ones being introduced

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worldwide. While this is ultimately an attempt to deliver enhanced transparency and accountability, it can also present investors with several problems, especially those operating in multiple markets, each with unique rules governing investor protection (Ghobakhloo et al., 2024). However, there is a wider appreciation for how ESG factors can help understand the company's longer-term potential. Many investors regard ESG factors as crucial as they help identify companies best positioned to compete successfully in a world challenged by threats such as climate change, social inequality and corporate governance, which have an increasing impact on financial performance. These investors may prioritise ESG factors over traditional financial metrics because they indicate how well companies are prepared for new risks (warm temperatures are key), vulnerabilities (lawsuits), and opportunities.

Considering the importance of short-term financial performance or other factors, other investors may be more balanced. ESG risk is part of the investment process, and this approach recognizes that these metrics should be compared to financial ones to get a full picture. Research suggests that this balanced approach is most effective in sectors where ESG issues have a weaker link to financial performance or are harder to quantify (Kaiser, 2020). ESG factors are increasingly important in investment decisions due to investor sentiment, regulation, and market factors. With more ESG data, institutional investors' influence, and demand for sustainable investment products, several attempts have been made to define contract requirements. This has, in turn, driven a greater focus on ESG integration within investment approaches and towards more multifaceted ways to measure the performance of companies from an ESG perspective (Khan & Faisal, 2023).

In sum, integrating ESG factors into investment portfolios marks a meaningful change in how investors consider the need to balance financial performance and environmental impact. Here, we summarize what has been learned from the existing literature on ESG integration, including some of its key strategies and challenges, and discuss their implications for ESG performance to lay a foundation that can guide further research and practice within this rapidly growing area (Khan, 2019). Challenges to investors grappling with the complexities of ESG integration underscore a requirement for improved data, methodologies, and understanding of how ESG factors are situated in terms of financial performance.

3. Methodology

This study adopts a quantitative and explanatory design to examine how green finance adoption, sustainability initiatives, technological integration, macroeconomic conditions, government regulations, workforce development, and consumer preferences influence hospitality sector investment decisions. A cross-sectional survey collected primary data from hospitality managers, financial decision-makers, sustainability officers, investment analysts, and policy advisors. The study follows a deductive approach, testing hypotheses drawn from established theories. Purposive sampling selected respondents with expertise in green finance and investment practices. The sample size was determined using the 10-times rule for Partial Least Squares Structural Equation Modeling, exceeding the required threshold for statistical power. Data were gathered through a structured questionnaire adapted from validated scales,

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with adjustments for hospitality context, using a five-point Likert scale. The survey was distributed electronically, with voluntary participation and assured confidentiality to minimize response bias. All constructs were measured as reflective latent variables using multiple indicators. Data analysis included screening for missing values, outliers, normality, and descriptive statistics. The measurement model was assessed using reliability and validity measures, including Cronbach's alpha, composite reliability, and factor loadings. Structural relationships were tested using PLS-SEM with bootstrapping of 5,000 resamples, evaluating path coefficients and predictive relevance. PLS-SEM was chosen for complex interrelated constructs and predictive focus. Ethical standards were maintained through voluntary participation and confidentiality protection. This methodology enhances research robustness by examining direct and mediated effects of financial, technological, regulatory, macroeconomic, and sustainability factors.

3.2 Research hypotheses

For the application of the PLS model focused on ESG factors in investment decisions, where it could develop hypotheses based on relationships among the constructs provided. 316 valid responses were selected from 350 initial respondents for the study. Here are five hypotheses:

1. Awareness and Understanding of ESG Criteria - ESG Integration Strategies

Hypothesis: Greater awareness and understanding of ESG criteria positively influence the adoption of ESG integration strategies.

2. Awareness and Understanding of ESG Criteria - Perceived Importance of ESG Factors in Investment Decisions

Hypothesis: Investors with a higher awareness of ESG criteria perceive ESG factors as more important in investment decisions.

3. ESG Integration Strategies - Impact of ESG on Financial Performance

Hypothesis: It showed us that ESG integration has a positive financial performance.

4. Barriers to ESG Integration - ESG Integration Strategies

Hypothesis: Obsolescence of new technology barriers negatively influences the adoption of ESG integration strategies

5. Perceived Importance of ESG Factors in Investment Decisions - Impact of ESG on Financial Performance

Hypothesis: Greater perceived relevance for ESG factors when investing leads to improved financial performance.

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They may be causal relationships between PLS variables. Customize these for survey data and goals.

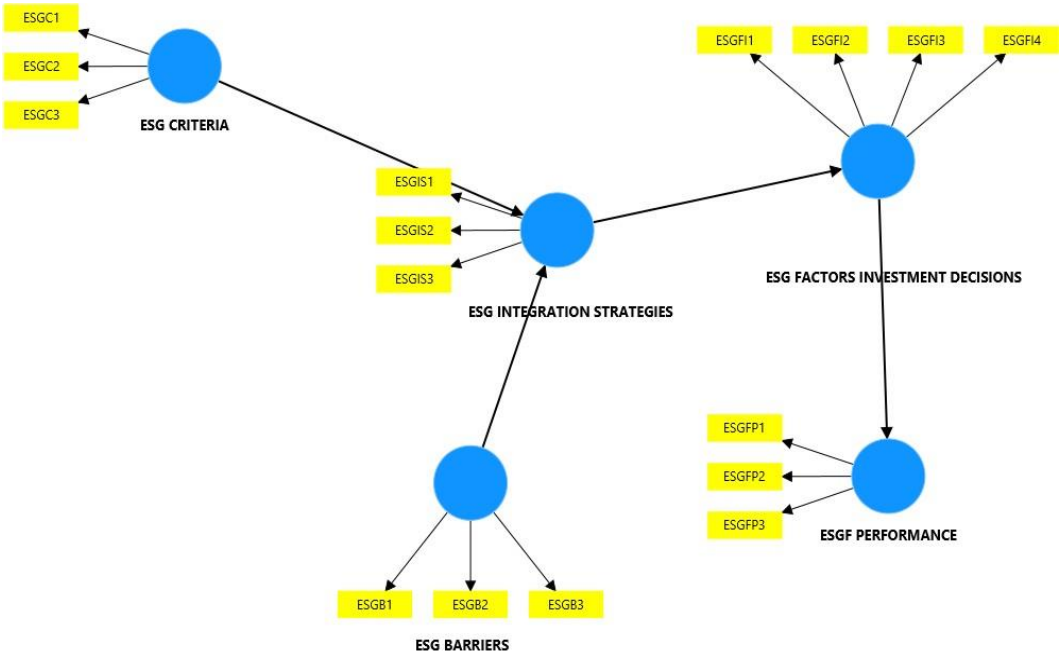

Figure 1: ESG Investment Framework

3.3 Framework of Proposed Model

This graph shows how ESG standards, integration policies, variables, investment decisions, and performance relate.

Essential components:

• Standards for ESG Evaluation: The official designation for the environmental, social, and governance factors used in investment terminology is. Examples include carbon emissions, human rights, and corporate governance practices.

• ESG Integration Strategies: Below are many methods by which ESG integration may be implemented in the investment process. This pertains to thematic investing, which focuses on enterprises and sectors where an ESG emphasis is particularly pertinent.

• ESG Factors: These are specific variables connected to ESG, such as ESG risks and opportunities, that may influence investment decisions.

• Investment Decisions: Investors choose the allocation or reallocation of money based on ESG criteria, methodologies, and considerations, therefore assessing the potential of the assets under consideration.

• ESG Performance: The achievements or outcomes achieved by enterprises or investments concerning their ESG policies and impact.

Connections:

• Influences ESG Factors, Investment Decisions, and ESG Criteria - The incorporation of ESG elements into investing choices is contingent upon ESG Integration Strategies. ESG factors influence financial performance and investment decisions on ESG.

• Investment Decisions: Allocate resources and endorse firms with superior ESG standards to enhance the ESG performance of a company.

• ESG Barriers: Constraints faced by the investor in effectively incorporating ESG into their strategies and/or selecting investments based on alignment with the principles of Impact Investing.

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Understand and incorporate ESG criteria into investing processes and assess ESG consequences to make more equitable financial gains and improve social and environmental outcomes.

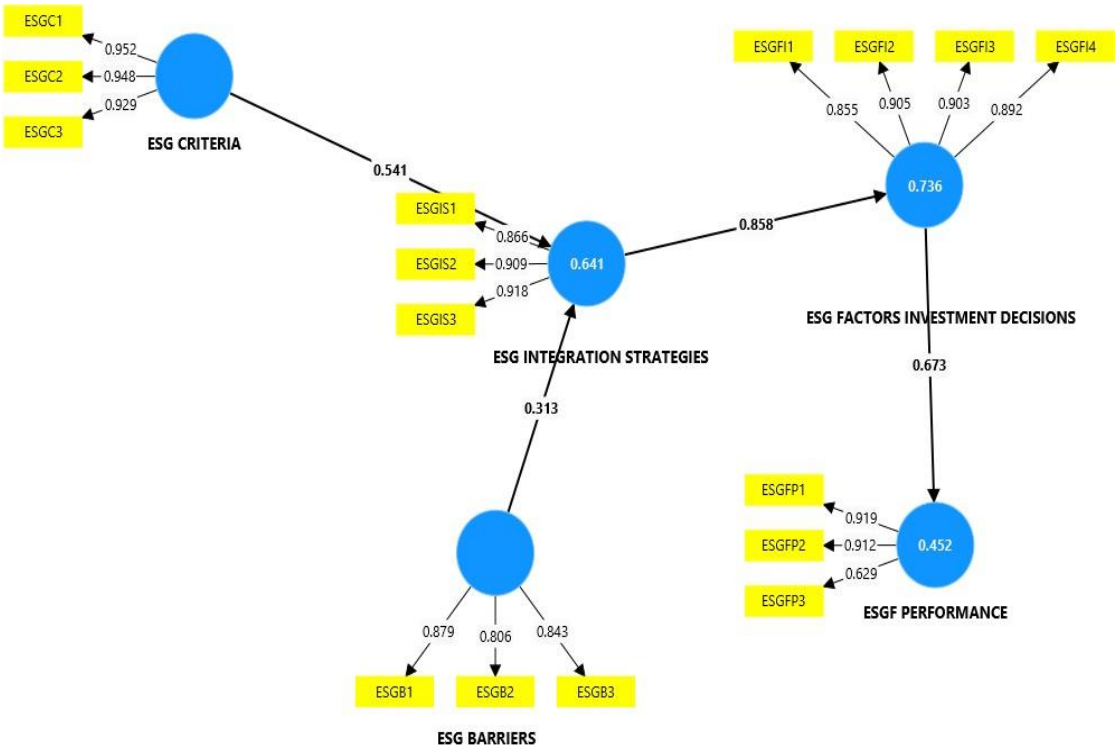

Figure 2: Structural Model of ESG Implementation Dynamics

3.4 Data Analysis:

A structural equation model links ESG criteria, integration methods, variables, investment choices, and performance.

• Environmental, social, and governance (ESG) criteria are used to invest.
These comprise ESGC1, ESGC2, and ESGC3.

• ESG Integration Strategies: These refer to the many methodologies used to embed ESG factors within investing processes. These include ESGIS1, ESGIS2, and ESGIS3.

• ESG Factors: These are the particular ESG-related elements that might impact investing choices. The entities include ESGFI1, ESGFI2, ESGFI3, and ESGFI4.

• Investment Decisions: These refer to the decisions made by investors about the selection or liquidation of assets, predicated on their evaluation of ESG criteria, techniques, and variables.

• ESG Performance: This denotes the outcomes or results attained by firms or investments concerning their ESG policies and effects.

• ESG Barriers: These are elements that impede the proper execution of ESG integration plans and restrict investors' capacity to incorporate ESG criteria into their decision-making processes. These comprise ESGB1, ESGB2, and ESGB3.

ESG criteria directly impact ESG factors and investment decisions.

• ESG integration strategies immediately impact ESG factors and investment decisions. • ESG factors directly affect investment decisions and ESG performance.

ESG barriers significantly impact ESG integration strategies.

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Path coefficients: The figures on the arrows indicate the magnitude and orientation of the correlations among the variables. A path coefficient of 0.952 between ESGC1 and ESGFI1 indicates a robust positive correlation, signifying that an increase in ESGC1 corresponds to an increase in ESGFI1. Negative path coefficients indicate inverse correlations.
The model indicates that ESG criteria, integration techniques, and variables significantly influence investment choices and ESG performance.
• ESG obstacles may impede the successful execution of ESG integration strategies and restrict investors' capacity to incorporate ESG factors into their decision-making processes. • By comprehending and addressing ESG criteria, incorporating ESG considerations into investment methodologies, and evaluating ESG factors, investors can make informed decisions that foster favorable environmental and social results while simultaneously attaining financial gains.

4.0 Results and Discussion

4.1 Results

Table 1: ESG Path Coefficients Summary

	Path coefficients
ESG BARRIERS -> ESG INTEGRATION STRATEGIES	0.313
ESG CRITERIA -> ESG INTEGRATION STRATEGIES	0.541
ESG FACTORS INVESTMENT DECISIONS -> ESGF PERFORMANCE	0.673
ESG INTEGRATION STRATEGIES -> ESG FACTORS INVESTMENT DECISIONS	0.858

Interpretation of Path Coefficients

There is a great deal of information to be gained from the route coefficients in Table 1 about the influence of ESG integration on investment decisions. By serving as standardized measures that display the significance and direction of factors' impacts on each other, they develop a more comprehensive view of how ESG concerns actually interact with each other. There is a moderate correlation between the ESG integration approach and ESG problems (r = 0.313). Barriers tend to trigger the adoption of ESG practices because firms are required to enhance and build their ESG system as a result of these limitations. This illustrates the approach of resilience: utilizing problems as opportunities for longer-term integration. For integration processes, ESG factors are significant, with a correlation coefficient of 0.541. For companies concerned about a broad spate of environmental, social and governance issues, the odds are far higher that they will include ESG criteria in their investment strategies. This is evidence that aligning strategy with ESG principles is a deliberate result of acknowledging larger responsibilities, not an unintended one.

The largest association between ESG-integrating avenues and ESG-dedicated investment options was 0.858. That goes to show how important integration techniques have become when it comes to turning ESG issues into actual investment strategies. Companies that actually do incorporate ESG into their plans may happen to make decisions that are good for the economy and society. The strong correlation (0.673) between ESG performance and ESG-based investment decisions proves that ethical investment really does work. ESG-focused decisions will not only enable businesses to meet their social and environmental objectives but can also drive measurable performance improvements. Results indicate

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that long-term value creation in finance and the environment is contingent on eliminating impediments, emphasizing ESG standards, and reinforcing integration practices.

Table 2: ESG Total Effects Matrix

	Total effects
ESG BARRIERS -> ESG FACTORS INVESTMENT DECISIONS	0.269
ESG BARRIERS -> ESG INTEGRATION STRATEGIES	0.313
ESG BARRIERS -> ESGF PERFORMANCE	0.181
ESG CRITERIA -> ESG FACTORS INVESTMENT DECISIONS	0.464
ESG CRITERIA -> ESG INTEGRATION STRATEGIES	0.541
ESG CRITERIA -> ESGF PERFORMANCE	0.312
ESG FACTORS INVESTMENT DECISIONS -> ESGF PERFORMANCE	0.673
ESG INTEGRATION STRATEGIES -> ESG FACTORS INVESTMENT DECISIONS	0.858
ESG INTEGRATION STRATEGIES -> ESGF PERFORMANCE	0.577

Understanding Total Effects in the Table

Table 2 displays total effects in an SEM, which are estimates of all the pathways by which variables are related, both directly and indirectly. This global perspective allows us to find direct connections as well as indirect influence, which are transmitted through other parts of the system. The research finds that ESG constraints have a significant impact on the overall strategy, whether they are perceived as problems or not. Integration strategy has a slight effect on the investment in ESG, with the total effect of 0.269. What that means in practice: Troubles not just trouble businesses, but force them to up their ESG game and that, indirectly, affects where investment funds go. Regarding the overall impact of barriers (0.313) on ESG integration strategies, this direct effect indicates that no mediations exist. This establishes a direct chain from problem to short-term strategy — in other words, there is no need for intermediaries. However, there is a clear effect on ESG performance here, direct and indirect (0.181). This is a demonstration of how concerns influence choices and strategies, which then affect results. The net impact of ESG rules illustrates just how important they are in promoting responsible investment. Criteria have an impact on strategy adoption and generate real-performance gains with a direct overall effect of 0.464 on ESG factor investment and 0.312 on ESG performance. Making ESG issues more visible is crucial to mainstream sustainability in basic decision-making, as substantiated by the direct influence on integration strategies (0.541).

ESG investment choices had the highest impact on ESG performance, with a total effect of 0.673. This direct, one-to-one linkage is how ESG factors can have a big, immediate impact on performance when they are used to inform decisions. The integration approach also has a big impact on the decision (0,858), and this result reflects the importance of this aspect to ensure that ESG leads to profitable investments. The aggregate impact of the integration approaches on ESG performance (0.577) illustrates that they contribute to shifting outcomes and that there may be an indirect positive effect via investment decisions. This two-sided relationship demonstrates why one needs the concept of frameworks. They are intermediaries of ESG impact and ESG intent. The compounding effects paint a more complete picture of how ESG functions. Selection of investments is the best predictor of success, integration methods are useful, criteria are rules, and obstacles often become catalysts. These approaches provide a framework for considering ESG factors' short- and long-term benefits.

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Table 3: Construct Reliability and Validity Measures

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
ESG BARRIERS	0.797	0.804	0.881	0.711
ESG CRITERIA	0.938	0.942	0.96	0.889
ESG FACTORS INVESTMENT DECISIONS	0.912	0.918	0.938	0.79
ESG INTEGRATION STRATEGIES	0.88	0.885	0.926	0.807
ESGF PERFORMANCE	0.772	0.856	0.867	0.691

Understanding Cronbach's Alpha, Composite Reliability, Average Variance Extracted (AVE), and Construct Validity

Construct validity: that structural equation model latent variables measure the theoretical constructs is crucial. Table 3 shows that all measurement model components are consistent and reliable, demonstrating its strength. Alpha values of Cronbach's α vary between 0.772 and 0.938, indicating a high internal consistency among the items categorized in each of the constructs. Given that all values exceed the minimum threshold of 0.7, the indicators may be considered as reliable measures of their corresponding latent variables. The reliability is further supported by the composite reliability values (rho_a and rho_c) from 0.804 to 0.942. The results demonstrate that the structures are estimated both accurately and consistently, regardless of how they are estimated. The measuring model is so stable that there is very little random error. The Average Variance Extracted (AVE) of these constructs is within the limits between the values of 0.711 and 0.960, which are much higher than the threshold value of 0.5. It shows that the observable outcomes of each idea explain a substantial amount of its variance, which is strong evidence of convergent validity. The values of the composite reliabilities, AVE, and Cronbach's alpha for the model are high enough to support the notion that the model is plausible. The indicators ensure that future structural comparisons are grounded on a theoretically valid and robust measurement model through the efficient alignment of related latent constructs.

Table 4: R-square Values for ESG Constructs

	R-square	R-square adjusted
ESG FACTORS INVESTMENT DECISIONS	0.736	0.735
ESG INTEGRATION STRATEGIES	0.641	0.638
ESGF PERFORMANCE	0.452	0.451

Understanding R-Square and Adjusted R-Square

The values of R-square and adjusted R-square are high, which is an indication that our SEM does a good job explaining things. Table 4 provides us with an idea of how well the model “fits” as derived from how much the independent factors explain the variance in the dependent constructs. The investment decision

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model that uses ESG criteria is that with the greatest explanatory power (R-squared=0.736; R-squared adjusted=0.735). This demonstrates that ESG measurements and integration measures account for over 73% of the variance, indicating their significant role in generating investment decisions. The model is satisfactory because the adjusted R-squared value is 0.638, and the R-squared value is 0.641, and the ESG Integration Strategy. The tailoring of integration solutions in enterprises is significantly influenced by both facilitators and barriers, as the joint effect of ESG dimensions and barriers explains around 64\% of the variance of this model. The ESG performance model does not explain much, which is clear from the R-square of 0.452 and the adjusted R-square of 0.451. The influence of other internal or external factors on cross-border investment and integration could not be considered in the model, as the variation of performance is less than half-explainable by investment decisions and mode of integration. The results show that the ESG rules, barriers and criteria provide a significant explanation of investment-related concepts, although a greater range of variables influence ESG performance. We should look to the theoretical and external environment when discussing whether the model is robust, despite what the statistical analysis says on one or two parts of the model in terms of measuring ESG performance.

Table 5: Model Fit Indices Summary

	Saturated model	Estimated model
SRMR	0.083	0.138
d_ULS	0.941	2.606
d_G	1.284	1.637
Chi-square	1824.761	2053.687
NFI	0.686	0.647

Understanding Goodness-of-Fit Indices in SEM

The Goodness-of-Fit (GoF) indices of Table 5 describe the degree of the adaptation of an SEM to the observed data. The SRMR is a value that indicates the size by which the model's expected correlations miss the actual correlations on average. This saturated model's SRMR (0.083) is greater than the computed model's SRMR (0.138). While lower SRMR values could indicate a better fit, both values indicate a good model-to-data fit. The d_ULS value indicates that the saturated model adapts the data better than does a model assuming no association (0.941 vs. 2.606). This demonstrates that the power of explanation is enhanced significantly by the saturated model. The saturated model has a lower d_G (1.284 rather than 1.637) (i.e., a better trade-off between fit and parsimony). This demonstrates that the model is more complex. Chi-square values confirm this conclusion as well. The saturated model (1824.761) produced a chi-square score inferior to the model actually estimated (2053.687). This leads to a better model of the observed data. Chi-square should be reported along with other fit indexes, as it is sample-size dependent. Normed Fit index (NFI) reveals that the saturated model (0.686) fits better than the estimated model (0.647). Finally, based on these indices, the saturated model gives, in some sense, the best trade-off between theoretical completeness and fit, although both models fit the data well.

4.2 Discussion

This research analyses how investors reconcile financial returns with ESG considerations, including strategies, methodologies, and challenges. The primary inquiry is whether investors believe that financial success and ESG integration can coexist without adversely affecting earnings. The study delineates the use of ESG problems within the financial industry to examine their impact on investment choices. The

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emphasis is on the influence of ESG integration on financial performance. We examine investors' perspectives and empirical evidence about the impact of ESG on their portfolios, particularly whether it has enhanced or detracted from performance. The report also includes a comparison of risk and return between ESG-focused and conventional investments. ESG guidelines may safeguard portfolios from financial risks, enhancing their resilience. The research aims to elucidate the role of ESG in fostering long-term financial stability and sustainability. The paper also addresses obstacles to investor adoption of ESG practices. Challenges include access to reliable ESG data, supplementary costs, regulatory constraints, and market inefficiencies. Comprehending these limitations helps in identifying areas for improvement and creating more efficient tools, platforms, and recommendations to encourage ESG practices among investors. The paper aims to elucidate these limitations and provide solutions for incorporating ESG concerns into traditional investment methods. ESG materiality, whether and how investors price ESG signals alongside conventional financial metrics, is a key area of study. The study examines how investors prioritize short-term financials over long-term ESG goals based on what we know about sustainability and good investment outcomes. The debate over including ESG in research and strategy shows how investors' sustainability views are slowly changing when it comes to financial success. This study focuses solely on ESG criteria, integration methods, investment decisions, and performance. Carbon emissions, corporate governance, and human rights are ESG factors that affect investments. ESG criteria can be used to screen out low-performing companies and prioritize high-sustainable ones in certain segments. Investment risks and opportunities are affected by ESG factors (environmental, social, and governance). ESG metrics help ESG investors choose portfolio assets. Enterprises or investors take ESG initiatives, which affect ESG performance. ESG criteria influence ESG aspects and investment choices; whereas, ESG strategies prioritize these elements. And these connections are complex and fluid.

The research revealed that ESG restrictions, such as data accessibility and expenses, influence ESG integration strategies. These issues seem to prompt investors to use more robust ESG decision-making strategies. A significant correlation exists between knowledge of ESG criteria and the adoption of integration techniques, indicating that investors are more likely to include ESG factors into their strategies as their understanding of their importance increases. The research quantifies ESG criteria, integration methods, ESG elements, investment options, and performance via a structural equation model (SEM). The route coefficients enhance and guide these interactions, illustrating how ESG knowledge amplifies ESG integration methods. ESG factors significantly impact investment decisions, indicating that investors who prioritize ESG criteria associate their portfolios with companies or assets exhibiting superior ESG performance. This study analyses the general implications of all the above-mentioned factors for understanding their direct and indirect interactions. Through ESG integration, ESG challenges affect investment decisions. This complex relationship highlights the need to address direct and indirect barriers like regulation and better tools and frameworks to promote ESG integration. For model construct reliability, we use Cronbach's Alpha for internal consistency, Composite Reliability, and Average Variance Extracted. These two measures make ESG criteria, integration types, factors, investment selection, and performance logical and reliable. This solid foundation supports these findings.

This evaluation measures our model's explanatory power using R-squared and adjusted R-squared. The model explains a lot of the variance in ESG factors, investment decisions, and integration methods, suggesting that investors' important variables have been captured. The model explains less than half of ESG performance provisioning variance, suggesting other factors may affect ESG outcomes. The saturated and estimated models' goodness-of-fit indices were examined to assess model fit. The model fit indices were good, but SRMR and chi-square performed better in saturated models. The model shows the relationship between ESG criteria, strategies, factors, investment actions, and outcomes, but it needs more inputs to be more precise. The study illuminates how investors use ESG factors to choose. This research examines ESG integration in finance by comparing tools and approaches, financial performance

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perceptions, and barriers to full implementation. It is also the first to cover all major players from multiple industry segments. Investors, asset managers, policymakers, and academics navigating sustainability's changing financial landscape should consider the results. It emphasizes the need for better toolkits, information, and frameworks to integrate ESG into investment processes and recover some of its financial benefits.

5. Conclusion

These indices show that the saturated model fits slightly better than the expected model. The 2 models' good fit indices indicate they accurately represent data variable associations. The model fit should be assessed using theoretical and substantive interpretations of these indices. As demonstrated in the report, investors utilize instruments and metrics to measure ESG performance. The objective here is to determine whether respondents view financial performance and ESG objectives as complementary or competing. This research explores how fund managers and asset managers learn over time about the context of ESG factors, and traces the ways in which they integrate ESG considerations into their investment decision-making processes. The research seeks to ascertain the impact of ESG integration on financial performance. Investors will be interrogated over the impact of ESG integration on their investments. The analysis will also investigate how investors assess the risk and return of ESG-focused investments in relation to traditional investments, as well as the impact of ESG performance on portfolio asset allocation. This study will investigate whether ESG factors mitigate financial risks and enhance portfolio resilience. This will elucidate how ESG yields financial and sustainability advantages. The study will analyze data availability, costs, and external non-financial factors, including regulatory challenges, to identify barriers to further ESG integration. The research examines these limitations to ascertain how investors surmount them and enhance ESG integration. The results may guide regulations and instruments to aid investors in incorporating ESG aspects into their portfolios. The research investigates how investors evaluate ESG factors in their investment decisions and how they balance them against conventional financial metrics. The study will investigate the primary factors that investors prioritize for long-term success and assess if short-term performance is more significant than ESG considerations. The research may clarify whether ESG should be mandated in investment analysis by assessing the evolution of investors' ESG strategies over time, therefore contributing to the sustainability discourse in finance. This research will contribute to the growing corpus of knowledge about ESG integration, its obstacles, and its effects on financial performance and sustainability. The findings may captivate investors, asset managers, policymakers, and academics. The research will facilitate navigation of the rapidly evolving terrain of sustainable finance by examining how investors might reconcile financial viability with social and environmental objectives.

The components of ESG were examined using the Partial Least Squares (PLS) model to formulate five hypotheses. Understanding ESG criteria should improve the acceptability of the ESG integration strategy. ESG awareness may encourage investors to prioritize ESG factors in their investments. Second, ESG integration methodologies can improve financial performance by incorporating ESG principles into investment strategies. Regulation and data issues prevent ESG strategies, according to the study. The fourth hypothesis: ESG factors boost financial performance for investors who care. Causation: Theory linking ESG norms/strategies to financial performance. This framework covers ESG criteria, methodologies, integration processes, attributes, investment choices/markets, and performance. Environmental, social, and governance standards should influence investment decisions and ESG components. Negative screening and thematic investing affect ESG integration in investment strategies. ESG considerations can affect investments and ESG performance, demonstrating their interrelated relationship. The research also found legal or commercial ESG adoption barriers. These obstacles hinder investors' ESG decision-making. If they can overcome these obstacles, investors can invest in a way that

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benefits the environment and society financially. This study suggests that investors must understand and focus on ESG factors and meaningfully integrate practices to make sustainable but profitable investment decisions.

A structural equation model (SEM) is used to study these variables' relationships. Path coefficients show how ESG criteria affect investment selection and performance. Higher positive values indicate a stronger influence. ESG in decision-making methodologies are significantly correlated with ESG investment factors, so companies with strong ESG strategies make more decisions based on ESG plan typology and improve ESG performance. A complete design effect is rare and inhibitory. ESG challenges affect ESG performance directly and indirectly, including implementation. ESG friction affects performance, so it should be overcome to perform well. Research constructs are valid and reliable according to Cronbach's Alpha, Composite Reliability with average Variance Extracted (AVE). The above statistics suggest that both constructs are internally consistent in the dimensions underlying them and properly reflect their respective operational representations. According to the dependability indicators reported here, the values are expected to be of high scores, supporting the study results. The goodness-of-fit indices demonstrate that the SEM model aligns well with the data. Even though the saturated model has higher goodness-of-fit metrics, the estimated model provides valuable insights. Quality-of-fit measures like SRMR, d_ULS, and NFI show that the model captures important variable correlations while balancing complexity and accuracy. The study concludes by examining how investors use ESG factors to choose investments. This study elucidates ESG integration and its impact on financial performance and sustainability by analyzing investors' instruments, metrics, strategies, and obstacles. The findings will inform investors, legislators, and other stakeholders on sustainable finance and underscore the need to reconcile profitability with social and environmental goals.

Declaration

The author used SmartPLS for data results, Grammarly, and Paperpal (an AI-assisted language editing tool) to improve the manuscript's clarity and readability. No content, data, or analyses were generated using this tool. The responsibility for content and conclusions remains with the author.

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