

## Advancing the Sustainable Finance Agenda: Empirical Insights into ESG Practices Across Markets

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### KEYWORDS

*Sustainable Development, Environmental, Social, and Governance (ESG), Social Finance, Sustainable Development Goals (SDGs), Desalination*

### ABSTRACT

This study explores the impact of Environmental, Social, and Governance (ESG) integration on the financial performance of investment portfolios (FPIP). Analyzing global perspectives from financial professionals, the research identifies a positive relationship between ESG criteria (IESGC) and portfolio performance. Through regression and correlation analyses, it is found that 53% of portfolio performance variation can be attributed to ESG strategies. Regulatory frameworks (RF) are shown to moderate this relationship, enhancing ESG effectiveness across regions. Regional variations (RV) also significantly influence how ESG factors are prioritized, leading to different financial outcomes. Despite limitations like potential self-reporting biases and the evolving nature of ESG criteria, the study underscores the importance of ESG integration for improving portfolio performance, particularly in supportive regulatory environments. This research contributes to sustainable finance literature, offering insights for investors, policymakers, and financial institutions aiming to balance profitability with sustainable development goals. Future studies could explore the long-term market impact of emerging ESG trends..

## 1. INTRODUCTION

The integration of Environmental, Social, and Governance (ESG) criteria into investment strategies has become a central focus in the evolving landscape of sustainable finance. As investors increasingly prioritize responsible investment decisions, understanding the relationship between ESG integration and financial performance is crucial. This study investigates how ESG factors influence the financial performance of investment portfolios (FPIP) by analyzing perspectives from financial professionals worldwide. Through comprehensive regression and correlation analyses, the research finds a significant positive relationship between ESG criteria (IESGC) and portfolio performance, with ESG strategies explaining 53% of the variation in portfolio outcomes. Additionally, the study highlights the moderating role of regulatory frameworks (RF) in enhancing the effectiveness of ESG integration across various regions. Regional variations (RV) also play a significant role in shaping how ESG factors are prioritized, leading to differences in financial performance across markets. While the study acknowledges limitations, such as potential biases in self-reported data and the dynamic nature of ESG criteria, it underscores the growing importance of incorporating ESG considerations into investment strategies. The findings contribute to the broader body of sustainable finance literature, offering practical insights for investors, policymakers, and financial institutions seeking to align profitability with sustainable development goals. Future research can further explore the long-term market effects of emerging ESG trends

## 2. LITERATURE REVIEW:

The concept of financing sustainable development has gained significant attention as global challenges such as climate change, social inequality, and economic instability require urgent solutions. Strategic approaches to financing these goals have evolved, encompassing a wide range of financial instruments and policies aimed at promoting environmental, social, and economic sustainability. This literature review examines global perspectives on financing sustainable development, focusing on innovative funding mechanisms, the role of private and public sectors, and the integration of Environmental, Social, and Governance (ESG) factors in investment strategies.

### Summary of Literature Review

Author's	Work Done	Findings
Umek, L. (2020)	Examines the impact of the COVID-19 pandemic on higher education students worldwide	Identified significant disruptions in education and students' well-being, highlighting the need for resilient educational frameworks
Kabli, A. (2020)	Explores social finance and its alignment with the Sustainable Development Goals (SDGs)	Found that social finance can significantly contribute to achieving SDGs, though challenges remain in scaling up these initiatives
Barnes, T. D. (2020)	Investigates the intersection of women, politics, and power globally	Emphasized the global gender gap in political power and proposed strategies for increasing women's participation in politics
Kang, S. M. (2019)	Reviews the state of desalination and brine production	Concluded that desalination is crucial for water security, but brine production poses environmental challenges
Rockström, J. (2019)	Discusses the six transformations required to achieve the SDGs	Identified key transformations such as sustainable energy and inclusive growth to ensure the achievement of SDGs by 2030
Li, S. (2018)	Introduces nexus approaches to sustainable development	Found that integrated approaches are crucial for addressing global sustainability challenges, highlighting trade-offs between resources
O'Connell, D. (2017)	Examines the integration of SDGs in governance	Stressed that a holistic, integrated approach is essential to effectively implement SDGs, emphasizing the need for interdisciplinary coordination
Robèrt, K. H. (2017)	Proposes a framework for strategic sustainable development	Developed a systematic approach for embedding sustainability into business and development strategies
Molinari, C. (2017)	Explores the role of interdisciplinarity in advancing education for sustainability	Advocated for interdisciplinary educational frameworks to better equip individuals to tackle sustainability challenges
Kim, R. E. (2017)	Investigates the UN's goal-setting approach through SDGs	Found that the SDGs' goal-setting approach is a novel way to drive global environmental and social change, but effective governance is crucial
Branca, F. (2016)	Analyzes childhood stunting from a global perspective	Highlighted the widespread issue of childhood stunting and the critical need for targeted nutrition and public health interventions
Tsounta, M. E. (2015)	Investigates the causes and consequences of income inequality globally	Found that income inequality hinders economic growth and social mobility, stressing the need for inclusive economic policies
Luque, R. (2013)	Examines food waste as a resource for chemicals,	Identified the potential of food waste as a resource for sustainable production but noted technological

	materials, and fuels	and logistical barriers
Peattie, K. (2012)	Discusses sustainability marketing from a global perspective	Highlighted the importance of sustainability in marketing, suggesting that businesses integrating sustainability will have long-term competitive advantages

### Research Gap:

Despite the growing body of literature on ESG integration, a notable gap remains in understanding the long-term impact of ESG strategies on market dynamics, especially in emerging markets. Additionally, there is limited research exploring the nuanced influence of regional regulatory frameworks on ESG effectiveness. Most studies focus on developed economies, leaving a lack of comprehensive insights into how ESG criteria are prioritized and applied in diverse geopolitical contexts. Future research could address these gaps by exploring the evolving role of ESG in global financial markets.

### Problem Statement:

Despite growing interest in ESG integration, limited research explores its direct impact on the financial performance of investment portfolios (FPIP), especially across diverse global regions. There is also a gap in understanding how regulatory frameworks and regional variations influence ESG effectiveness and financial outcomes.

### Research Objectives:

This study aims to:

1. Examine the relationship between ESG criteria integration and the financial performance of investment portfolios.
2. Investigate how regulatory frameworks moderate the relationship between ESG integration and financial performance.
3. Analyze the role of regional variations in mediating the relationship between ESG integration and financial performance.
4. Provide evidence-based recommendations for investors and policymakers on optimizing ESG integration for improved financial outcomes.
5. Contribute to the sustainable finance literature by addressing gaps in understanding the global dynamics of ESG implementation.

## 3. METHODOLOGY:

This study examines the impact of Environmental, Social, and Governance (ESG) factors on the financial performance of investment portfolios (FPIP) from a global perspective, aiming to address existing gaps in sustainable finance literature. The research framework identifies the integration of ESG criteria (IESGC) as the independent variable, while regulatory frameworks (RF) serve as a moderating variable, and regional variations (RV) act as a mediating variable. By exploring how these elements interact, the study seeks to provide deeper insights into how ESG integration strategies influence financial outcomes across diverse contexts. A sample of 500 participants, including institutional investors, asset managers, and financial analysts with varying levels of expertise, will be drawn from global financial sectors. This diversity ensures a well-rounded understanding of sustainable finance dynamics. Data collection will utilize a structured questionnaire featuring closed-ended questions and standardized 5-point Likert-scale items, where responses range from 1 (Strongly Disagree) to 5 (Strongly Agree). This format enables the quantification of participants' attitudes and experiences regarding ESG integration. To ensure clarity and reliability, the questionnaire will undergo pre-testing before distribution. Participants will be recruited through professional networks, industry groups, and online platforms, with a strong emphasis on confidentiality and anonymity. Stratified and random sampling methods will ensure a balanced representation across geographical regions, sectors, and expertise levels. Quantitative data will be analyzed using descriptive statistics to summarize data, correlation analysis to explore relationships, and regression analysis to examine the impact of ESG criteria on financial performance. By providing empirical evidence, the study aims to contribute practical insights that inform decision-making in sustainable finance, supporting a more comprehensive understanding of how ESG integration can enhance investment outcomes.

## 4. RESULT & DISCUSSION:

**Demographic variable:** The data provides a demographic breakdown of participants in the study, showcasing a diverse range of characteristics. Among the age groups, young investors (18-25) make up the largest portion at 42.2%, followed by middle-aged investors (26-45) at 41.6%, and older investors (46+) at 16.2%. In terms of gender, males represent a slight

majority at 53%, while females account for 47%. Regarding income, 42.6% of participants fall into the low-income category, 38.2% are in the middle-income group, and 19.2% belong to the high-income bracket. In terms of education, 27.2% of participants have a high school education or less, 28.8% have some college or technical training, 30.6% hold a bachelor's degree, and 13.4% have advanced degrees such as a Master's or Ph.D. Occupationally, the sample includes a mix of finance professionals (26.4%), non-finance professionals (28.6%), entrepreneurs (28.6%), and students (16.4%). Geographically, 43.8% of participants are from urban areas, 40% from suburban areas, and 16.2% from rural regions. This diverse representation ensures a comprehensive understanding of the global perspectives on sustainable finance.

**Table 1 Demographic Variable**

Category	Frequency	Percent
<b>Age</b>		
Young investors (18-25)	211	42.20%
Middle-aged investors (26-45)	208	41.60%
Older investors (46+)	81	16.20%
<b>Gender</b>		
Male	265	53.00%
Female	235	47.00%
<b>Income</b>		
Low income	213	42.60%
Middle income	191	38.20%
High income	96	19.20%
<b>Education</b>		
High school or less	136	27.20%
Some college/technical training	144	28.80%
Bachelor's degree	153	30.60%
Advanced degree (Master's, Ph.D.)	67	13.40%
<b>Occupation</b>		
Finance professionals	132	26.40%
Non-finance professionals	143	28.60%
Entrepreneurs	143	28.60%
Students	82	16.40%
<b>Location</b>		
Urban	219	43.80%
Suburban	200	40.00%
Rural	81	16.20%

**Table 2 Survey Items with Closed-Ended Likert Scale Format.**

Code	Survey Items	Mean	Standard Deviation
<b>FPIP1</b>	ESG integration has improved the financial returns of my investment portfolio.	3.99	0.965

<b>FPIP2</b>	Portfolio diversification with ESG criteria has led to better risk-adjusted returns.	4	0.919
<b>FPIP3</b>	ESG-focused investments perform better over long-term investment horizons.	4.08	0.915
<b>FPIP4</b>	External economic factors affect ESG investments less than traditional investments.	4.03	0.946
<b>FPIP5</b>	Historical performance shows that ESG integration enhances portfolio returns.	3.99	0.971
<b>IESGC1</b>	My investment decisions are influenced by environmental sustainability criteria.	3.99	0.941
<b>IESGC2</b>	Social responsibility factors are important in my investment decision-making process.	3.95	0.879
<b>IESGC3</b>	Corporate governance quality is a key factor in my investment selection.	4.01	0.963
<b>IESGC4</b>	ESG integration helps reduce long-term investment risks.	4	0.972
<b>IESGC5</b>	I prioritize companies with strong ESG ratings in my portfolio allocation.	3.93	0.962
<b>RF1</b>	Current regulations effectively promote ESG integration in investment practices.	3.99	0.895
<b>RF2</b>	Regulatory incentives positively influence my decision to adopt ESG criteria.	3.95	0.93
<b>RF3</b>	Compliance requirements for ESG disclosure are beneficial for investors.	3.95	0.945
<b>RF4</b>	Regulatory frameworks in my region support sustainable investment practices.	3.94	0.923
<b>RF5</b>	Cross-border regulatory differences affect my global ESG investment decisions.	4	0.972
<b>RV1</b>	Regional cultural differences impact how I implement ESG criteria in investments.	3.92	0.961
<b>RV2</b>	Market maturity in different regions affects ESG implementation effectiveness.	3.99	0.894
<b>RV3</b>	I apply different ESG standards when investing in developed versus emerging markets.	3.94	0.929
<b>RV4</b>	Political stability influences my ESG investment decisions in different regions.	3.95	0.948
<b>RV5</b>	Economic development levels determine the weight I give to ESG factors in regional investments.	3.93	0.921

The table presents survey items related to investment portfolios, ESG (Environmental, Social, and Governance) integration, regulatory frameworks, and regional variations, along with their mean values and standard deviations. The financial performance of investment portfolios is assessed through five items (FPIP1–FPIP5), with mean values ranging from 3.99 to 4.08, indicating a general agreement among respondents on the key aspects of financial performance related to ESG integration. The standard deviations, ranging from 0.915 to 0.971, show moderate variability in responses. Regarding ESG integration (IESGC1–IESGC5), respondents generally agree on the significance of ESG factors in investment decisions, with mean values ranging from 3.93 to 4.01. The standard deviations indicate moderate variability, especially for IESGC2 (0.879), which shows lower variability compared to others. Survey items on regulatory frameworks (RF1–RF5) highlight

the role of regulations in supporting ESG integration, with mean values between 3.94 and 4.00 and standard deviations ranging from 0.895 to 0.972, suggesting a consensus on the importance of regulatory frameworks. Regional variations (RV1–RV5) examine how cultural, societal, and economic differences impact ESG integration, with mean values from 3.92 to 3.99 and standard deviations indicating slight regional diversity. Overall, the survey results suggest a shared understanding of ESG integration's importance, though regional and regulatory challenges show some variability in responses.

**Reliability Test:** The table presents the number of items used to measure different constructs, alongside their corresponding Cronbach's Alpha values, which assess internal consistency or reliability. Each construct, namely FPIP (Financial Performance of Investment Portfolios), IESGC (Integration of ESG Criteria), RF (Regulatory Framework), and RV (Regional Variations), consists of five items. Cronbach's Alpha measures how reliably these items assess the underlying concept of each construct. A higher Cronbach's Alpha value indicates greater internal consistency, meaning the items are consistently measuring the same concept. Typically, a Cronbach's Alpha value above 0.7 is considered acceptable, with values closer to 1.0 suggesting stronger reliability. This ensures that the survey or instrument used for data collection is consistent and dependable in measuring the specified constructs.

**Table 3 Reliability Test**

Construct	N of Items	Cronbach's Alpha
FPIP	5	0.87
IESGC	5	0.85
RF	5	0.82
RV	5	0.84

**Descriptive Statistics:** The table presents the mean, standard deviation, and sample size (N) for four categories: FPIP (Financial Performance of Investment Portfolios), IESGC (Integration of ESG Criteria), RF (Regulatory Framework), and RV (Regional Variations). The mean values for these categories are all close to 4, indicating that the respondents generally rated them positively, with FPIP having the highest mean at 4.018, followed by IESGC at 3.9752, RF at 3.9656, and RV at 3.9472. The standard deviations are all relatively moderate, with values ranging from 0.72655 to 0.76951, suggesting that there is some variability in responses, but the ratings are not widely spread. The sample size for each category is 500, ensuring that the results are based on a sufficiently large and reliable sample. These statistics reflect a generally positive perception of the factors influencing portfolio performance, with moderate variability in responses across all categories.

**Table 4 Descriptive Statistics**

Category	Mean	Std. Deviation	N
FPIP	4.018	0.76951	500
IESGC	3.9752	0.76467	500
RF	3.9656	0.72655	500
RV	3.9472	0.74248	500

## Hypothesis Testing:

### Hypothesis 1

**H0:** The integration of ESG criteria (IESGC) has no significant impact on the financial performance of investment portfolios (FPIP).

**H1:** The integration of ESG criteria (IESGC) significantly improves the financial performance of investment portfolios (FPIP).

**Table 5 Correlation Analysis**

FPIP	IESGC	
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<b>FPIP</b>	1	0.728**
<b>IESGC</b>	0.728**	1

**Note:** \*\* Correlation is significant at the 0.01 level (2-tailed).

**Regression Analysis:** The table provides key statistics for evaluating a regression model's fit and performance. The R value of 0.728 indicates a strong, positive relationship between the independent variable(s) and the dependent variable. The R-Square of 0.53 reveals that 53% of the variation in the dependent variable can be explained by the model, which suggests a moderately strong fit. The Adjusted R-Square of 0.529, which slightly adjusts the R-Square for the number of predictors, shows that the model remains fairly reliable without being prone to overfitting. The Standard Error of the Estimate of 0.52812 suggests that, on average, the model's predictions deviate from the actual values by about 0.528 units, indicating a relatively accurate model. Overall, the model demonstrates a solid relationship with the data, explaining more than half of the variation, with a reasonable prediction error.

**Table 6 Model Summary**

<b>Model</b>	<b>R</b>	<b>R-Square</b>	<b>Adjusted R-Square</b>	<b>Std. Error of the Estimate</b>
1	0.728	0.53	0.529	0.52812

The table presents key statistics for a regression model. The R value of 0.728 indicates a strong positive correlation between the independent and dependent variables, suggesting that there is a significant relationship. The R-Square value of 0.53 means that 53% of the variation in the dependent variable can be explained by the model, reflecting a moderately strong fit. The Adjusted R-Square value of 0.529 is close to the R-Square, which suggests that the model isn't overfitting and adjusts well for the number of predictors used. The Standard Error of the Estimate is 0.52812, indicating the average prediction error, which is moderately low, showing reasonable accuracy in the model's predictions. Overall, the model explains a substantial portion of the variance in the dependent variable, and its predictions are fairly accurate.

**Table 7 ANOVA**

<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	156.581	1	156.581	561.407	0
Residual	138.897	498	0.279		
Total	295.478	499			

The ANOVA results show a highly significant regression model ( $F = 561.407$ ,  $p < 0.001$ ), indicating that ESG integration is a significant predictor of financial performance in investment portfolios. The large F-statistic and significant p-value below 0.05 provide strong evidence to reject the null hypothesis ( $H_0$ ) and support the alternative hypothesis ( $H_1$ ) that ESG integration significantly improves financial performance of investment portfolios.

## Hypothesis 2

**H0:** Regulatory frameworks (RF) do not moderate the relationship between the integration of ESG criteria (IESGC) and financial performance (FPIP).

**H1:** Regulatory frameworks (RF) positively moderate the relationship between the integration of ESG criteria (IESGC) and financial performance (FPIP).

## Moderating Analysis

**Table 8 Model Summary**

<b>R</b>	<b>R-sq.</b>	<b>MSE</b>	<b>F</b>	<b>df1</b>	<b>df2</b>	<b>P</b>
0.7672	0.5886	0.2176	712.557	1	498	0

The moderation analysis reveals a strong relationship ( $R = 0.7672$ ) between the variables, with the model explaining 58.86% of the variance in financial performance ( $R\text{-sq.} = 0.5886$ ). The model is statistically significant ( $F = 712.557$ ,  $p < 0.001$ ), indicating that regulatory frameworks do moderate the relationship between ESG integration and financial

performance.

**Table 9 Model**

Variable	Coefficient	SE	T	P
Constant	0.3769	0.1089	3.4611	0.0006
IESGC	0.2349	0.0385	6.1025	0
RF	0.6827	0.0405	16.8512	0
IESGC × RF	0.1524	0.0293	5.2014	0

The interaction term (IESGC × RF) shows a significant positive effect (Coefficient = 0.1524,  $p < 0.001$ ), confirming that regulatory frameworks enhance the positive relationship between ESG integration and financial performance. This provides strong evidence to reject the null hypothesis (H0) and support the alternative hypothesis (H1) that regulatory frameworks positively moderate the ESG-financial performance relationship.

### Hypothesis 3

**H0:** Regional variations (RV) do not mediate the relationship between the integration of ESG criteria (IESGC) and financial performance (FPIP).

**H1:** Regional variations (RV) mediate the relationship between the integration of ESG criteria (IESGC) and financial performance (FPIP).

### Mediating Analysis

**Table 10 Model Summary**

R	R-sq.	MSE	F	df1	df2	P
0.7793	0.672	0.234	255.626	3	496	0

The mediation analysis shows a strong relationship among the variables ( $R = 0.7793$ ), with the model explaining 67.2% of the variance in financial performance ( $R\text{-sq.} = 0.672$ ). The model is statistically significant ( $F = 255.6261$ ,  $p < 0.001$ ), supporting the mediation effect of regional variations.

**Table 11 Direct and Indirect Effects**

Path	Coefficient	SE	T	P
IESGC → FPIP (Direct)	0.4215	0.0572	7.3689	0
IESGC → RV	0.8355	0.1351	6.1825	0
RV → FPIP	0.4782	0.0573	8.3455	0
IESGC → RV → FPIP (Indirect)	0.3993	0.0834	-	0

The mediation analysis reveals significant direct (IESGC → FPIP: Coefficient = 0.4215,  $p < 0.001$ ) and indirect effects (IESGC → RV → FPIP: Coefficient = 0.3993,  $p < 0.001$ ). Both the path from IESGC to RV (Coefficient = 0.8355,  $p < 0.001$ ) and from RV to FPIP (Coefficient = 0.4782,  $p < 0.001$ ) are significant. These results provide strong evidence to reject the null hypothesis (H0) and support the alternative hypothesis (H1) that regional variations significantly mediate the relationship between ESG integration and financial performance.

## 5. DISCUSSION

In the context of sustainable development financing, ESG (Environmental, Social, and Governance) criteria are integral to evaluating the relationship between ethical investments and financial success. This study explores ESG integration in investment portfolios by examining the roles of regulatory frameworks and regional variations.

### Hypothesis 1: The Impact of ESG Integration on Financial Performance

Our first hypothesis tested whether incorporating ESG criteria significantly influences the financial performance of

investment portfolios. Data analysis revealed a strong positive correlation ( $r = 0.728$ ) between ESG integration and improved portfolio outcomes. The regression analysis showed that ESG strategies account for 53% of the variation in portfolio performance ( $R^2 = 0.53$ ). This statistically significant relationship ( $F = 561.407$ ,  $p < 0.001$ ) strongly supports the alternative hypothesis (H1), which asserts that ESG considerations contribute not only to ethical investment decisions but also to financial success. These findings align with growing investor demand for businesses with sustainable and socially responsible operations, suggesting that ESG integration offers a competitive advantage in today's investment landscape.

### Hypothesis 2: Regulatory Frameworks as a Moderator

The second hypothesis examined the role of regulatory frameworks in moderating the relationship between ESG integration and financial performance. Our moderation analysis revealed that regulatory frameworks significantly enhance the positive effect of ESG integration on financial performance (interaction coefficient = 0.1524,  $p < 0.001$ ). The moderation model explained 58.86% of the variance in financial performance ( $R^2 = 0.5886$ ), providing strong support for the alternative hypothesis (H1). These findings highlight that the impact of ESG on financial performance is contingent on the strength and nature of regulatory frameworks, underscoring the importance of supportive regulatory environments in maximizing the benefits of ESG integration. Investors operating in regions with robust ESG regulations tend to experience greater financial returns from their sustainable investment practices.

### Hypothesis 3: The Influence of Regional Variations as a Mediator

The third hypothesis investigated how regional variations mediate the relationship between ESG standards and financial outcomes. Our mediation analysis found significant direct (coefficient = 0.4215,  $p < 0.001$ ) and indirect effects (coefficient = 0.3993,  $p < 0.001$ ) through regional variations. The mediation model explained 67.2% of the variance in financial performance ( $R^2 = 0.672$ ), validating the alternative hypothesis (H1). These results emphasize the importance of considering local factors—such as market conditions, cultural attitudes toward sustainability, and regional governance standards—when assessing the effectiveness of ESG criteria. Investors must adapt their ESG strategies to account for regional specificities to maximize financial performance, as a one-size-fits-all approach to ESG integration may not yield optimal results across different geographical contexts.

## 6. CONCLUSION:

This study provides valuable insights into the role of Environmental, Social, and Governance (ESG) integration in shaping the financial performance of investment portfolios (FPIP). By examining global perspectives through a diverse sample of financial professionals, the research demonstrates a robust positive relationship between ESG criteria (IESGC) and portfolio performance. The regression and correlation analyses reveal a significant link between ESG integration and financial outcomes, with 53% of the variation in portfolio performance explained by ESG strategies. Additionally, regulatory frameworks (RF) are found to moderate this relationship, enhancing the effectiveness of ESG integration in different regions. Regional variations (RV) also play a pivotal role, mediating the relationship between ESG integration and financial performance, as these differences contribute to variations in how ESG factors are prioritized and implemented across different markets.

Despite the study's limitations, such as potential biases in self-reported data and the evolving nature of ESG criteria, the findings emphasize the importance of integrating ESG principles within financial strategies. The study highlights that investment portfolios that adopt ESG considerations tend to show improved financial performance, especially when supported by favorable regulatory environments and adapted to regional contexts. This research contributes to the growing body of knowledge in sustainable finance, offering practical insights for investors, policymakers, and financial institutions aiming to align profitability with sustainable development goals. Future research could explore emerging trends in ESG integration and its long-term impact on market dynamics.

### Future Scope

- Track ESG integration and sustainable finance trends over time to capture evolving dynamics.
- Include broader geographic regions and diverse financial sectors for enhanced generalizability.
- Utilize additional data collection methods (e.g., case studies, interviews) to complement self-reported data.
- Examine other influencing factors such as technological innovation and market volatility.

Investigate.

## REFERENCES

- [1] Aristovnik, A., Keržič, D., Ravšelj, D., Tomaževič, N., & Umek, L. (2020). Impacts of the COVID-19 pandemic on life of higher education students: A global perspective. *Sustainability*, 12(20), 8438.
- [2] Rizzello, A., & Kabli, A. (2020). Social finance and sustainable development goals: A literature synthesis,

- current approaches and research agenda. *ACRN Journal of Finance and Risk Perspectives*, 9.
- [3] Paxton, P., Hughes, M. M., & Barnes, T. D. (2020). *Women, politics, and power: A global perspective*. Rowman & Littlefield.
- [4] Jones, E., Qadir, M., Van Vliet, M. T., Smakhtin, V., & Kang, S. M. (2019). The state of desalination and brine production: A global outlook. *Science of the Total Environment*, 657, 1343-1356.
- [5] Sachs, J. D., Schmidt-Traub, G., Mazzucato, M., Messner, D., Nakicenovic, N., & Rockström, J. (2019). Six transformations to achieve the sustainable development goals. *Nature sustainability*, 2(9), 805-814.
- [6] Liu, J., Hull, V., Godfray, H. C. J., Tilman, D., Gleick, P., Hoff, H., ... & Li, S. (2018). Nexus approaches to global sustainable development. *Nature sustainability*, 1(9), 466-476.
- [7] Stafford-Smith, M., Griggs, D., Gaffney, O., Ullah, F., Meyers, B., Kanie, N., ... & O'Connell, D. (2017). Integration: the key to implementing the Sustainable Development Goals. *Sustainability science*, 12, 911-919.
- [8] Broman, G. I., & Robèrt, K. H. (2017). A framework for strategic sustainable development. *Journal of cleaner production*, 140, 17-31.
- [9] Annan-Diab, F., & Molinari, C. (2017). Interdisciplinarity: Practical approach to advancing education for sustainability and for the Sustainable Development Goals. *The International Journal of Management Education*, 15(2), 73-83.
- [10] Biermann, F., Kanie, N., & Kim, R. E. (2017). Global governance by goal-setting: the novel approach of the UN Sustainable Development Goals. *Current Opinion in Environmental Sustainability*, 26, 26-31.
- [11] De Onis, M., & Branca, F. (2016). Childhood stunting: a global perspective. *Maternal & child nutrition*, 12, 12-26.
- [12] Dabla-Norris, M. E., Kochhar, M. K., Suphaphiphat, M. N., Ricka, M. F., & Tsounta, M. E. (2015). Causes and consequences of income inequality: A global perspective. *International Monetary Fund*.
- [13] Lin, C. S. K., Pfaltzgraff, L. A., Herrero-Davila, L., Mubofu, E. B., Abderrahim, S., Clark, J. H., ... & Luque, R. (2013). Food waste as a valuable resource for the production of chemicals, materials and fuels. Current situation and global perspective. *Energy & Environmental Science*, 6(2), 426-464.
- [14] Belz, F. M., & Peattie, K. (2012). *Sustainability marketing: A global perspective*. John Wiley & Sons.

