

## **ESG performance, Cost of Capital and Firm Performance among Tourism Industry in MENA**

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### **Abstract**

The study discusses ESG performance and its relationship with firm performance, where cost of capital acts as a critical mediator. The results clearly indicate that effective ESG performance has positive influence upon firm performance, and each of environmental, social, and governance components contribute uniquely. In addition, the study shows that superior ESG performance translates into reduced cost of capital, which improves overall firm performance. The outcomes of the mediation analysis highlight the importance of cost of capital to link ESG factors to corporate financial performance. The data prove there is a correlation between high ESG performance and financial success, low capital costs and therefore confirm the case for priority of ESG factors in corporate management. By providing insight into the role of ESG in forming both financial and corporate success, this research provides investors and managers pursuing both environmentally responsible and profitable operations with valuable insight.

**Keywords:** Environmental, Social And Governance (Esg), The Firm Performance Indicators, Cost Of Capital, Mediation Analysis, Corporate Sustainability, Financial Returns, Investment Strategies, Corporate Governance Practices

### **Introduction**

Recently, there has been a surge in interest in the extent to which firms contribute to society. Especially in sectors that are condemned for having detrimental effects on both society and the environment, like the tourism sector (Uyar et al., 2020). To further advance this trend, the sector has been embracing the notion of ESG (environmental, social, governance) because of its distinct focus on governance issues (Legendre et al., 2024). ESG indicates a company's dedication to environmental stewardship, social responsibility, and strong governance standards. It is having a growing impact on investment choices, regulatory frameworks, and consumer preferences (Khan, 2022). The move is motivated by an increasing acknowledgment that implementing sustainable business practices may reduce risks and improve long-term profitability.

In parallel, the ESG performance has a substantial influence on the cost of capital, which is a crucial factor in determining a company's financial performance (Y. H. Kim & Park, 2021). Companies that possess robust ESG qualifications often have the advantage of reduced capital expenses as a result of heightened investor trust and the perception of less risk (Khanchel & Lassoued, 2022). Therefore, the tourist industry's dedication to strong ESG policies not only promotes sustainable development but also ensures more advantageous financing terms, so strengthening its overall financial stability. This is especially pertinent in the tourist sector, where environmental and social consequences are prominent, and stakeholders are more sensitive about implementing sustainable practices. As investors and lenders progressively include ESG factors into their decision-making processes, the ESG performance of tourist firms may directly impact their cost of capital. Increasing evidence indicates that having robust ESG credentials may result in a reduced cost of capital.

Companies that exhibit strong sustainability practices are often seen as less risky investments, which attracts a wider range of investors and possibly lowers equity costs (Khanchel & Lassoued, 2022). Additionally, companies that have high ESG ratings may see reduced costs of borrowing since they are regarded to have a lower level of risk (Dhaliwal et al., 2011). In contrast, inadequate ESG performance may result in harm to a company's image, fines from regulatory bodies, and higher operational expenses, all of which can raise the firm's cost of capital.

Reducing capital expenditure allows organizations to obtain more cost-effective funding, pursue growth opportunities, and improve profitability. Theory of the capital structure proposed by Modigliani and Miller in 1958 asserts that the cost of capital directly influences a company's value and decisions regarding investment (Giglio, 2022). It indicates that a decrease in the cost of capital could enhance the value and performance of a company. Empirical investigations offer more evidence that supports this perspective. (Graham & Harvey, 2001) found that organisations that emphasise strategies targeted at reducing their cost of capital tend to exhibit greater financial performance. This occurs because reducing financial expenses enables the reallocation of resources to growth projects, research and development, and other value-generating activities. A study conducted by (Chen et al., 2011)

demonstrated that organisations with lower capital costs exhibit higher returns on assets and equity. This emphasises the evident correlation between capital expenditures and the overall performance of a company. Therefore, it is imperative to effectively control the expense of capital in order to enhance a company's total performance and maintain competitiveness. Furthermore, it is imperative to conduct a comprehensive examination of the relationship between ESG performance and the overall prosperity of companies in the tourism sector. Companies that exhibit outstanding ESG practices have the ability to not only reduce operational risks and save costs, but also improve their reputation, attract a loyal customer base, and achieve superior financial performance. In an industry that heavily relies on natural and cultural resources, the adoption of sustainable management practices is vital for assuring the continued existence and attaining prosperity in the long run.

With regard to the tourism industry in the Middle East and North Africa (MENA) countries, it has been thriving, providing visitors with a distinctive combination of ancient history, lively cultures, and stunning landscapes (Hilmi et al., 2015). For example, the ancient pyramids and temples in Egypt are a major draw for millions of tourists each year, making a substantial contribution to the country's economy (Dallen, 2019). Moreover, the historic cities of Morocco, such as Marrakech and Fez, are widely recognised for their lively markets and impressive architectural splendour. Despite the growing international interest in the tourism industry, much remains unknown about its impact on ESG performance, cost of capital, and overall firm performance within the MENA region's tourism sector.

This paper aims to dissect these dynamics within the tourism industry in MENA countries by empirically examining the correlation between ESG performance, cost of capital and firm performance. Furthermore, it investigates the mediating role of cost of capital between ESG performance and firm performance.

This paper aims to dissect these dynamics within the tourism industry in MENA countries by empirically examining the relationship between ESG performance, cost of capital, and firm performance. The phenomenon of interest lies in understanding how sustainability-oriented practices, captured through ESG performance, influence firms' financing conditions and operational outcomes in a region where the tourism sector plays a pivotal role in economic diversification, employment generation, and long-term development. Despite the growing global emphasis on ESG considerations, empirical evidence on their financial implications remains inconclusive, particularly in emerging and institutionally diverse regions such as MENA.

The need to conduct this study is underscored by the increasing pressure on tourism firms in the MENA region to adopt sustainable practices amid environmental vulnerabilities, regulatory reforms, and heightened investor scrutiny. While prior studies have examined the direct effects of ESG performance on firm value and financial performance, most existing research is concentrated in developed markets and often overlooks industry-specific dynamics. Moreover, limited attention has been paid to the underlying mechanisms through which ESG performance affects firm outcomes. In particular, the mediating role of cost of capital remains underexplored in the context of tourism firms operating in MENA economies. By addressing this gap, the present study contributes to the literature in several ways. First, it provides industry-specific evidence from the tourism sector, which is both sustainability-

sensitive and economically significant in the MENA region. Second, it extends prior research by empirically testing the mediating role of cost of capital, thereby offering deeper insights into the transmission channel linking ESG performance and firm performance. Finally, the study offers practical implications for managers, investors, and policymakers by highlighting how ESG investments can enhance financial performance through improved financing conditions. Overall, this research is motivated by the need to enrich the ESG–finance literature with regionally grounded, mechanism-based evidence, making it both timely and relevant to scholars and practitioners alike.

## **Literature Review**

### *Background*

#### *Tourism industry*

The tourist sector plays a pivotal part in worldwide economic progress, making substantial contributions to the gross domestic product (GDP), employment rates, and international commerce. Although tourism is a relatively young industry, it has rapidly shifted its focus from solely economic rewards to acknowledging its broader implications for sustainability. Currently, there is mounting evidence that although a shift in the market is happening, this change is not happening as quickly as the expanding amount of academic research on sustainable tourism (Budeanu et al., 2016). The industry has a distinct advantage in spearheading the sustainability movement because of its broad engagement with the environment and society. Sustainable tourism methods strive to minimise adverse environmental effects, preserve natural resources, and uphold biodiversity, all while fostering socio-cultural preservation and community involvement (Ruhanen et al., 2015). Studies suggest that sustainable tourism has the potential to bolster local economies by creating employment opportunities and producing revenue, all while preserving the ecological and cultural authenticity of tourist sites (Giglio, 2022; Gössling et al., 2009). Furthermore, the use of digitalization and responsible travel practices in the sector aids in the more efficient management of resources and the reduction of carbon footprints. This highlights the industry's significant contribution to supporting sustainability (Gössling & Peeters, 2015). By incorporating sustainability into its fundamental operations, the tourist industry not only guarantees its long-term sustainability but also contributes to wider global sustainability.

#### *Tourism Industry in MENA Countries*

Significant economic potential exists in the MENA tourist sector, which supports the preservation of culture, diversification of the economy, and creation of jobs. Millions of tourists visit the region each year, drawn by its abundance of historical and cultural landmarks, which include the ancient city of Carthage in Tunisia, Petra in Jordan, and the Pyramids of Giza in Egypt. In addition, the MENA region has become a popular travel destination worldwide thanks to contemporary attractions in the Gulf states, such as Dubai's skyscrapers and opulent resorts. The MENA region's tourism sector has potential, but it also faces obstacles like infrastructural limitations, security concerns, and political instability (Gössling et al., 2009). But a number of nations in the area are working together to boost tourism by implementing policy changes and making calculated investments to improve infrastructure, security, and service standards. As an example, the Vision 2030 initiative of Saudi Arabia seeks to diversify the country's economy through the growth of the tourism sector; initiatives such as NEOM and the Red Sea Project are anticipated to attract significant numbers of foreign tourists (Saudi Vision 2030, 2021). According to research, the MENA area

is adopting more sustainable tourism practices to safeguard its distinctive natural and cultural resources. To draw in an increasing number of environmentally concerned tourists, nations are emphasizing sustainable tourism and cultural preservation (Gössling & Peeters, 2015). The MENA area may use tourism as a vehicle for sustainable development, fostering stability and prosperity in the region, by striking a balance between the economic rewards and the preservation of the environment and culture.

### **Theoretical Ground**

Conventional financial reports are insufficient in capturing the diverse facets of business activities (Cuadrado-Ballesteros et al., 2017). Due to this rationale and in accordance with the Directive, prominent corporations are obligated to reveal non-financial data regarding their approach to addressing sustainability issues through various types of reports, including Integrated reports and Sustainability reports (Izzo et al., 2020). This supplementary revelation mitigates the imbalance of information, and the expenses associated with the principal-agent relationship, which are both adverse outcomes of the Agency theory. Furthermore, according to the Signalling theory, the act of disclosing sustainability information conveys a favourable message to the market regarding a company's dedication to sustainability (Taoketao et al., 2018), which has the potential to enhance corporate performance.

#### *Agency Theory*

The Agency theory (Jensen & Meckling, 1976) is based on two fundamental principles: (i) the association between principal and agent, and (ii) the division between ownership and control (Fama & Jensen, 1983). Tourism enterprises in the MENA region can mitigate agency costs by adopting robust ESG policies. Transparent environmental and social reporting can reduce monitoring expenses for shareholders by instilling confidence in the firm's good risk management. In addition, implementing strong governance processes allows companies to minimise the requirement for rigorous supervision and audits, resulting in decreased agency costs (Gompers et al., 2007). Likewise, strong ESG performance has the potential to bolster trust among various stakeholders, such as investors, customers, employees, and regulators. The enhanced trust can result in a more secure operational setting, more consumer allegiance, and improved capital accessibility. Shareholders benefit from stronger business performance as a result of reduced operational risks and enhanced market positioning (Cheng et al., 2014).

#### *Signaling Theory*

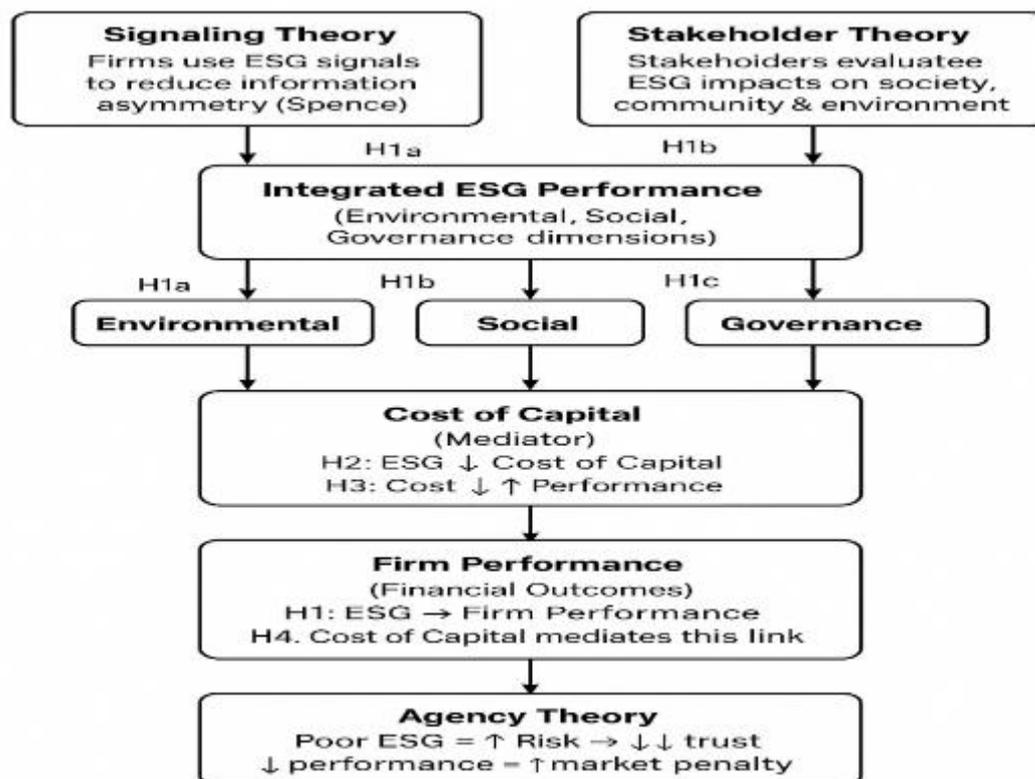
Signaling theory, first formulated by Michael Spence in 1973, suggests that in situations where there is unequal access to information, one party (the sender) can effectively communicate reliable information to another party (the receiver) by using signals. The signaling theory is founded upon four fundamental components: signal, signaler, receiver, and feedback (Taj, 2016). The signal is conveyed by an information stream originating from the signaler, who is responsible for internal management, and directed towards the receiver, who consists of external stakeholders. Ultimately, the feedback signifies the exchanges between individuals who transmit signals and those who receive them (Bae et al., 2018). Signaling theory in corporate finance and management posits that organisation can convey their quality and dependability to investors, customers, and other stakeholders by means of observable behaviors and attributes, such as their ESG performance.

### *Stakeholder Theory*

The notion of sustainability performance implies that a company should go beyond only maximising immediate shareholder profit and instead take into account the effects of its activities on all stakeholders, including the community, society, and the environment (Freeman, 1984). Within the framework of maximising shareholder value and promoting stakeholder wellbeing, sustainability initiatives can generate both synergies and conflicts. According to (Jensen, 2010), a company cannot achieve maximum value if it disregards the concerns of its stakeholders. Jensen proposes a theory called "enlightened stakeholder value maximisation," which emphasises the importance of maximising the long-term value of the company when making decisions that affect its stakeholders. Stakeholder theory posits that engaging in sustainability initiatives and achieving strong performance can increase the firm's long-term worth by fulfilling social responsibilities, meeting environmental obligations, and enhancing reputation. Nevertheless, these endeavours towards sustainability may necessitate substantial allocation of resources, which could potentially clash with the primary purpose of maximising shareholder profit. Sustainability reporting requires companies to assess the balance between different and sometimes conflicting short-term and long-term interests of shareholders, society, creditors, employees, and the environment (Wheeler et al., 2003). Jensen (2010) contends that under shareholder theory, the objective function of management is unambiguously defined as the creation of shareholder value.

Agency theory, Stakeholder theory and Signaling theory indicate that organisations that fail to act properly will face negative consequences from the market (Ching & Gerab, 2017). The primary impact of this disciplinary measure is manifested by a decline in their overall performance, specifically in a reduction in their sales and, consequently, a decrease in their EBIT.

## Theoretical Framework



### Hypothesis Development

The correlation between ESG performance and firm performance has attracted considerable interest in academic and commercial spheres. The tourism industry, especially in the MENA region, offers a distinct framework for studying this connection because of its environmental consequences, socio-economic contributions, and regulatory difficulties. The subsequent hypotheses are formulated to investigate the influence of ESG performance on business performance within the tourist sector.

**H1: There is an effect of integrated ESG performance on firm performance in the tourism industry.**

Integrated ESG performance entails the thorough assessment and integration of environmental, social, and governance factors into a company's overarching strategy and daily operations. When these components are managed together, they can create synergies that greatly enhance firm performance compared to managing them separately (Friede et al., 2015). Implementing an integrated Environmental, Social, and Governance (ESG) approach in the tourism industry can lead to comprehensive risk management, innovation, and long-lasting sustainability. Companies that successfully integrate environmental, social, and governance (ESG) factors into their operations can set themselves apart in the marketplace, attract a broader range of investors, and achieve sustainable competitive advantages. Research indicates that implementing a thorough strategy to incorporate environmental, social, and governance (ESG) aspects is associated with improved financial performance and resilience (Eccles et al., 2014). (Pulino et al., 2022) determined that there is a significant association between the disclosure of environmental, social, and governance (ESG)

information and the success of a company. As a result, they suggest that management should priorities allocating resources towards corporate social responsibility (CSR) initiatives.

***H1a: There is a positive relationship between environmental performance and firm performance in the tourism industry.***

Environmental performance, a crucial aspect of ESG, refers to a company's efforts to minimise its environmental effect through the implementation of sustainable practices, such as reducing carbon emissions, conserving water, and managing waste (Carnini Pulino et al., 2022). In the tourism industry, organisations that exhibit strong environmental performance can enhance their reputation and attract environmentally conscious travelers, especially in areas where natural resources are the main attractions. This can lead to increased customer loyalty, higher occupancy rates, and ultimately improved financial success. Previous studies have shown that organisations that implement sustainable practices often have financial advantages, operational enhancements, and a competitive advantage, resulting in improved overall performance (Porter & van der Linde, 1995).

***H1b: There is a positive relationship between social performance and firm performance in the tourism industry.***

Social performance refers to a company's endeavors to effectively handle its interactions with employees, customers, communities, and other stakeholders (Pulino et al., 2022). Social performance in the tourism business encompasses equitable labor standards, active involvement with the local community, high levels of consumer happiness, and prioritizing the safety and welfare of tourists. Strong social performance can result in increased customer loyalty, lower employee turnover, and favorable word-of-mouth promotion. Companies that allocate resources to social projects may also encounter reduced operational risks and enhanced market positioning. Studies indicate that there is a positive correlation between good social performance and higher business value as well as improved financial outcomes (Waddock & Graves, 1997).

***H1c: There is a positive relationship between governance performance and firm performance in the tourism industry.***

Governance performance refers to the effectiveness of a company's leadership, makeup of the board, degree of transparency, and dedication to ethical ideals. Efficient governance strategies enhance transparency, reduce the probability of corruption, and optimise decision-making processes (Carnini Pulino et al., 2022). Efficient management in the tourism industry can enhance investor confidence, streamline access to funding, and enhance the overall credibility of the company. Implementing efficient governance practices can lead to better alignment of strategy and operational efficiency, ultimately improving overall corporate performance. Studies have shown that organisations with strong governance systems tend to achieve superior financial performance and higher market value compared to those with less effective governance (Bauer et al., 2010).

***H2: There is a negative relationship between ESG performance and the cost of capital***

Previous studies have shown that a company's financial performance and the availability of accurate accounting information can lower the cost of equity capital by affecting investors' perception of uncertainty over future cash flows (Hou et al., 2010). The performance of a corporation in terms of its ESG practices has become a critical determinant of its cost of

capital. Companies that have robust ESG procedures are seen as less risky, resulting in a decreased cost of equity (Ng & Rezaee, 2015). Investors require a decreased rate of return because of the diminished danger of legal actions, regulatory penalties, and harm to the company's brand. Similarly, these businesses often have lower loan costs due to their normally higher credit ratings and more favorable borrowing terms resulting from improved creditworthiness and less risk of default. Furthermore, the growing investor enthusiasm for investments that adhere to ESG principles enhances the market's perception of these companies. Consequently, there is an increased demand for their stocks and bonds, leading to a decrease in their capital expenses. Research supports these trends, as studies show that organizations with robust ESG performance not only exhibit improved financial health and sustainability but also have lower borrowing costs. As investors and regulatory agencies place more importance on ESG factors, firms that demonstrate outstanding ESG performance are expected to enjoy significant financial advantages.

***H3: There is a negative relationship between the cost of capital and firm performance.***

The correlation between the cost of capital and firm performance is a crucial subject of examination in finance, as it directly influences a company's value and investment choices. The cost of capital, comprising the cost of equity and the cost of debt, is the minimum return expected by investors in exchange for their investment in the company. Reducing this charge can greatly improve the performance of the company by decreasing financing costs and improving net profitability.

The cost of capital for a corporation is influenced by various factors, including market conditions, interest rates, and the firm's risk profile. Efficient distribution of funds and decreased financing costs enable organizations to enhance their investments in opportunities for growth, therefore enhancing their performance. For instance, if a company enjoys a decreased cost of equity as a result of elevated investor confidence and a robust financial standing, it can get capital at a reduced expense. This, in turn, improves its return on equity and overall profitability. Similarly, when the expense of obtaining a loan is diminished as a result of positive credit evaluations and steady profits, the sum of money allocated to interest declines. Consequently, this results in an increased net income and a greater amount of cash that may be used for reinvestment.

Empirical research has definitively demonstrated a robust correlation between the cost of capital and the performance of a company. For instance, (Fama & French, 1998) discovered that companies with lower capital costs generally have higher valuation ratios and superior operational performance. This is because they are able to pursue more projects that generate value. In addition, (N. Esfahani et al., 2014) emphasized that tax incentives, which effectively reduce the cost of debt after taxes, might result in greater business performance by increasing cash flows and investment capacity.

The capital structure, which dictates the combination of debt and equity funding, also has a substantial impact on corporate performance. (Modigliani & Miller, 1958) proposed that, in an ideal market, the capital structure of a corporation has no impact on its value. Nevertheless, in actuality, variables such as taxes, bankruptcy expenses, and agency expenses indicate that an ideal capital structure can minimize the cost of capital and maximize the value of the company. Companies that effectively and deliberately manage their capital structure

to optimise the trade-off between the expenses and advantages of debt and equity financing generally achieve superior financial performance.

In addition, recent studies have examined how performance affects the cost of capital and business performance. Companies that have robust ESG procedures tend to enjoy the advantage of lower capital costs since they are seen as having lower risks and higher investor trust. This, in turn, leads to superior overall company performance. The research conducted by (Bauer & Hann, 2012; Modigliani & Miller, 1958) provides evidence that strong ESG performance is linked to reduced capital expenses and improved financial results.

***H4: The cost of capital mediates the relationship between ESG performance and firm performance.***

The cost of capital acts as an intermediary factor in the connection between ESG performance and company performance. The performance of a company in terms of ESG factors can impact the cost of capital by changing how risk is seen and how much faith investors have in the company. Companies that have strong ESG standards are frequently perceived as less hazardous investments, resulting in a reduced cost of stock and debt. The decrease in capital costs can improve the performance of a company by releasing financial resources that can be used for other operations that create value.

Empirical research provides evidence that there is a correlation between good ESG performance, and reduced expenses related to capital. El Ghouli et al. (2011) conducted a study that revealed a strong correlation between higher Corporate Social Responsibility (CSR) scores and reduced cost of equity for enterprises. Investors perceive these enterprises as less risky because of their responsible management methods and prospects for long-term sustainability.

Cheng, Ioannou, and Serafeim (2014) found that enterprises with high ESG scores are more likely to have improved financial access and reduced capital limitations. These companies get advantages from increased transparency, less agency expenses, and strengthened connections with stakeholders. These factors all lead to a reduced perception of risk and, as a result, a cheaper cost of capital. Furthermore, a study conducted by (Albuquerque et al., 2019) demonstrated that robust ESG performance can result in increased company valuation and improved operational performance through the reduction of capital costs. They contend that organizations with exceptional ESG indicators draw in a larger number of committed and long-term investors, resulting in decreased volatility and cost of capital.

## **Research Setting**

### *Data*

The sample consists of the annual reports of tourism-related companies in MENA countries, covering the period from 2017 to 2023. The sample was obtained from the Eikon database, which is known for ESG report analysis (Sikacz & Wołczek, 2018). The EIKON database offers users access to dependable, current, and precise information sourced from more than 400 stock-exchange and over-the-counter marketplaces (Thomson Reuters ASSET4 ESG Data Glossary 2013, 2013). The database encompasses a wide range of financial indicators and information, including current and historical data on shares, bonds, trust and investment funds, exchange rates, interest rates, financial derivatives, and commodities. It also includes

international macroeconomic data and forecasts for the largest global economies and developing countries. The Thomson Reuters EIKON database contains.

*Variable Measurement*

This research incorporates ESG performance as a dependent variable for assessing financial performance. Research conducted by (Alareeni & Hamdan, 2020),(Aouadi & Marsat, 2018) and (Duque-Grisales & Aguilera-Caracuel, 2021)has utilized financial metrics to depict corporate performance, highlighting the significance of these measurements in comprehending the profitability and efficiency of companies. The ESG ratings utilized by Eikon are a vital measure of independent factors that indicate the companies' dedication to sustainability and ethical governance principles.

Studies suggest that larger companies in the tourist sector are more inclined to reveal their ESG policies, which can have a favorable impact on their ESG ratings (Drempetic et al., 2020; Taliento et al., 2019). This tendency is explained by include the natural logarithm of total revenue as a control variable, acknowledging the relationship between business size and economies of scale (Alareeni & Hamdan, 2020; Albitar et al., 2020)

In order to reduce the effects of fluctuations in business risk between organizations that focus on production and those that focus on services, capital intensity is taken into account as a covariate (Fatemi et al., 2018). The Debt-to-Equity Ratio, which quantifies unsystematic risk, is incorporated into the model (Alareeni & Hamdan, 2020; Albitar et al., 2020; S. Kim & Li, 2021).

*Model Specifications*

Table 1

*Overview of model variables*

Variable	Category	Measure	Computation	Source
<b>Independent variable</b>	ESG rating	Overall ESG rating; E, S, G scores	Assessment by EIKON based on environmental, social, and governance criteria	EIKON
<b>Dependent variable</b>	Financial performance	Return on assets (ROA)	(Net Income) / (Total Assets)	Alareeni & Hamdan (2020); Albitar et al. (2020)
		Return on equity (ROE)	(Net Income) / (Total Equity)	Alareeni & Hamdan (2020); Albitar et al. (2020)
<b>Mediating variable</b>	Cost of capital	Weighted Average Cost of Capital (WACC)	(% of Equity × Cost of Equity) + (% of Debt × Cost of Debt × (1 – Tax Rate))	Fatemi et al. (2018)
<b>Control variable</b>	Business size	Natural log of total assets	ln (Total Assets)	Alareeni & Hamdan (2020); Albitar et al. (2020)
	Capital intensity	Capital expenditures / Total assets	CapEx / Total Assets	Fatemi et al. (2018)

Variable	Category	Measure	Computation	Source
	Leverage	Debt-to-equity ratio	Total Debt / Total Equity	S. Kim & Li (2021); Alareeni & Hamdan (2020)
	Industry type	Dummy variable (1 = manufacturing, 0 = service)	Based on industry classification	Albitar et al. (2020)

## Results

This chapter describes the empirical evidence that results from the numerical analysis of the relationships between ESG performance of business, corporate financial position, and capital pricing in tourism of certain MENA countries. The following is how the chapter is organized: includes descriptive statistics, examines relationships by means of correlation analysis, uses regression models to test the hypotheses and contains a mediation analysis related to the cost of capital..

### *Descriptive Statistics*

Variable	Mean	Std. Dev.	Min	Max	Observations
Firm Performance (ROA)	6.32	3.12	1.00	14.50	80
ESG Score (Integrated)	58.21	10.34	34.20	79.80	80
Environmental Score	61.42	11.29	37.80	82.10	80
Social Score	59.87	10.15	33.90	78.00	80
Governance Score	53.15	12.90	28.00	77.50	80
Cost of Capital (WACC %)	7.01	1.21	5.20	9.30	80

The descriptive statistics act as a starting point of reporting the data on the 80 observations in the current study. The mean value of Return on Assets (ROA) is written at 6.32 % with a standard deviation of 3.12%, showing moderate fluctuations in the firm's profitability. ROA's extremes seen are very significant here, with the lowest value at 1.00% and the highest value reaching a high of 14.50 %, a clear indication of significant variation in firms' financial efficiency and asset use.

The average Integrated ESG Score, 58.21, and a standard deviation of 10.34 reflects the fact that most companies tend to follow ESG integration moderately while their outcomes vary. The Environmental Score has the highest average value of 61.42 with high variability, ranging between 37.80 and 82.10, indicating large discrepancies across environmental undertakings among the firms that were research subjects. With a mean of 59.87 and less spread in data, the Social Score shows a higher level of consistency across firms for social aspects, such as

employee welfare, community programs and diversity efforts. The most varied with a mean of 53.15 is the Governance Score as its high standard deviation of 12.90 reflects large variations in the governance technique of firms. In addition, the WACC metric-based assessments bring about an average cost of capital as 7.01%, which ranges between 5.20% and 9.30%. The small value (1.21) for the standard deviation suggests that firms tend to operate with about the same capital cost, perhaps because of the same market interest rates or industry standards. These statistics demonstrate that although most businesses attain merely average ESG performance and earnings, there may be significant differences in governance and profitability, which will affect corporate strategies and the valuations by investors.

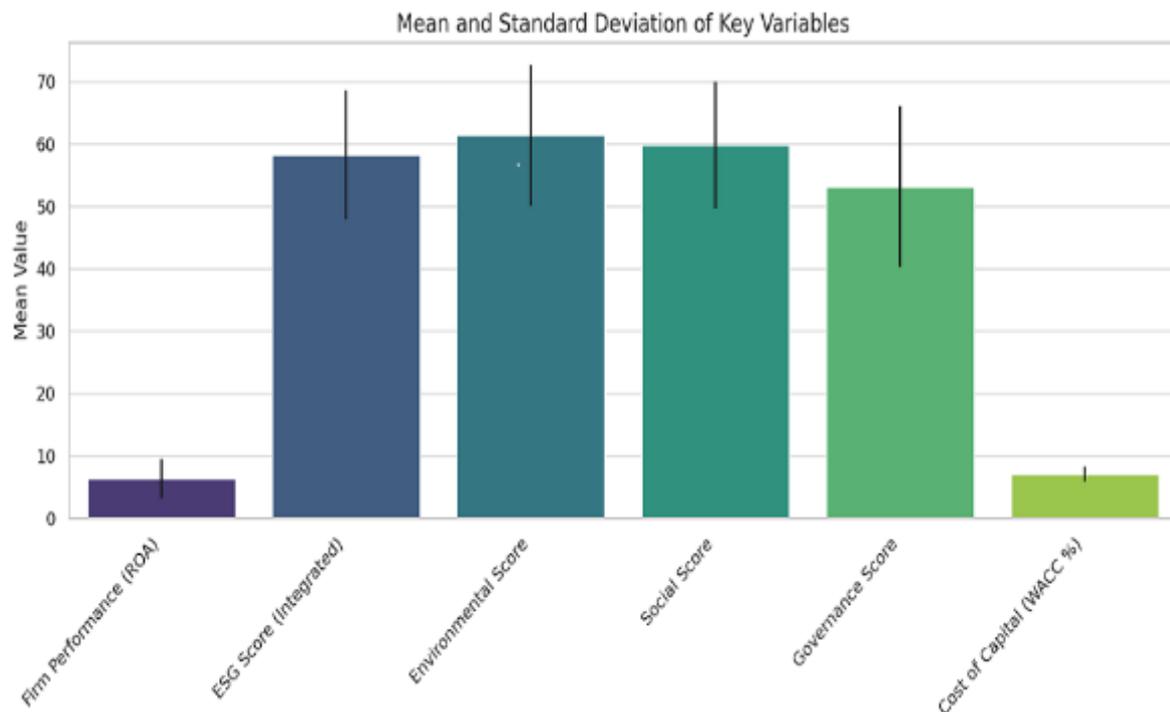


Figure 1: Descriptive Statistics

Correlation Matrix

Variable	ROA	ESG	E Score	S Score	G Score	WACC
ROA	1	0.52**	0.43**	0.41**	0.38**	-0.47**
ESG	0.52**	1	0.78**	0.73**	0.70**	-0.55**
E Score	0.43**	0.78**	1	0.54**	0.50**	-0.49**
S Score	0.41**	0.73**	0.54**	1	0.59**	-0.46**
G Score	0.38**	0.70**	0.50**	0.59**	1	-0.43**
Cost of Capital	-0.47**	-0.55**	-0.49**	-0.46**	-0.43**	1

**Note:** \*\*p < 0.01

From the inspection of the correlation matrix in Table 4.2, all relationships between the study variables are clearly very stringent and significant at 1% levels. This is a definite statistical proof of relationships between the measured variables. Starting with firm performance (ROA), there is a moderately strong positive correlation at ( $r = 0.52$ ), between the firm's performance and integrated ESG score. The findings suggest that greater ESG scores are positively correlated with better financial performance, giving support to the idea that accepting ESG principles will motivate greater profitability.

Also positively and significantly associated with ROA are components of ESG that are related to the environmental ( $r = 0.43$ ), social ( $r = 0.41$ ), and governance ( $r = 0.38$ ) elements, but the relation is less pronounced as compared to the one related to the integrated measure. The proportionate positive relationship that is observed means that while social and governance factored together with environmental factors contribute positively to the firm's performance, environmental factors are much more significant. It is interesting that there is an inverse relationship between the cost of capital (WACC) and ROA ( $r = -0.47$ ), the fact that higher profitability entities more often have access to capital at a lower rate. This is in line with the financial theory that, higher profitability means a lower risk perception hence the more affordable capital. An analysis of the ESG dynamics shows that the overall ESG score is highly integrated with each of its own components: environmental ( $r = 0.78$ ), social ( $r = 0.73$ ), and governance ( $r = 0.70$ ). This result is not surprising, as the integrated measure is a measure of performance across the environmental, social, and governance dimensions. In addition, all the three ESG dimensions present high positive interdependence, and the highest is between social and governance metrics ( $r = 0.59$ ), meaning that leadership success in one ESG dimension usually aligns with the rest. Also, the WACC exhibits a stable and robust negative correlation with all ESG indicators (including the integrated ESG score  $r = -0.55$ ), environmental  $r = -0.49$ , social  $r = -0.46$  and governance  $r = -0.43$ ). This result demonstrates that an ESG high performance is associated with decreasing capital costs, possibly due to increased certainty among inputs, risk less estimation or operational enhancing due to sustainability.

### *Regression Analysis*

#### *Hypothesis H1: Effect of Integrated ESG on Firm Performance*

Model 1:

$$ROA_i = \beta_0 + \beta_1 ESG_i + \epsilon_i$$

Variable	Coefficient	Std. Err.	t	p-value
ESG	0.104	0.021	4.95	0.000**
Constant	0.791	1.102	0.72	0.471
R <sup>2</sup>	0.271			

The hypothesis, H1; that integrated ESG performance has a positive effect upon firm performance, is consistently supported by the data generated by model 1. The analysis using

the regression shows that ESG has coefficient of 0.104, t-value of 4.95, and p-value 0.000 indicating that the relationship is highly significantly statistically at 1% level ( $p < 0.01$ ). The data allows us to reject the null hypothesis and concurrence with the alternative hypothesis. There is a clear prima facie evidence that ESG performance is highly correlated with firm profitability (ROA). From the analysis of the coefficient, a one point increase on integrated ESG score results in a 0.104 percentage point upward shift in ROA while holding other variable constant. However, our analysis accentuates the slope coefficient for ESG, which is clearly indicative that greater ESG performance is related to greater firm profitability, although there is a scanty constant term ( $p = 0.471$ ). A result of 0.271 in terms of R-squared implies that about 27.1% of the variations of firm performance (ROA) are due to the alterations in the ESG score. This shows that ESG, including one variable alone, can indeed predict firm performance meaningfully even without control variables and has a moderate explanatory power.



Figure 2: Effect of Integrated ESG on Firm Performance

*Hypotheses H1a–H1c: Disaggregated ESG Components*

Model 2:

$$ROA_i = \beta_0 + \beta_1 E_i + \beta_2 S_i + \beta_3 G_i + \epsilon_i$$

Variable	Coef.	Std. Err.	t	p-value
Environmental	0.076	0.028	2.71	0.008**
Social	0.081	0.025	3.24	0.002**
Governance	0.062	0.026	2.38	0.019*
Constant	0.995	1.178	0.84	0.403
R <sup>2</sup>	0.381			

Model 2 examines how each of the Environmental, Social, Governance (ESG) domains impact firm profitability, namely Return on Assets (ROA), in isolation. The explanatory power of the integrated model is greater than the explanatory power of Model 1 because about 38.1% of the ROA variation is explained by the model ( $R^2 = 0.381$ ). The Environmental score has a strong positive coefficient of 0.076 ( $p = 0.008$ ), i.e., the increase of one units of the environmental score is associated with a 0.076% increase in ROA. Consistent with such findings, the value of the Social score is considerably higher and significant in terms of its connection to ROA, at a coefficient of 0.081 ( $p = 0.002$ ), which indicates that such causes such as welfare, diversity, or involvement with the community relate positively to improved financial outcomes. Even corporate governance (Governance) exhibits statistically value significant positive impact (coefficient= 0.062,  $p= 0.019$ ), which implies that higher standards in corporate governance are positively contributing to firm profit. In conclusion, the results highlight the fact that every aspect of ESG uniquely and significantly impacts financial results, and the model suggests that social criteria result in the most significant firm performance effects.

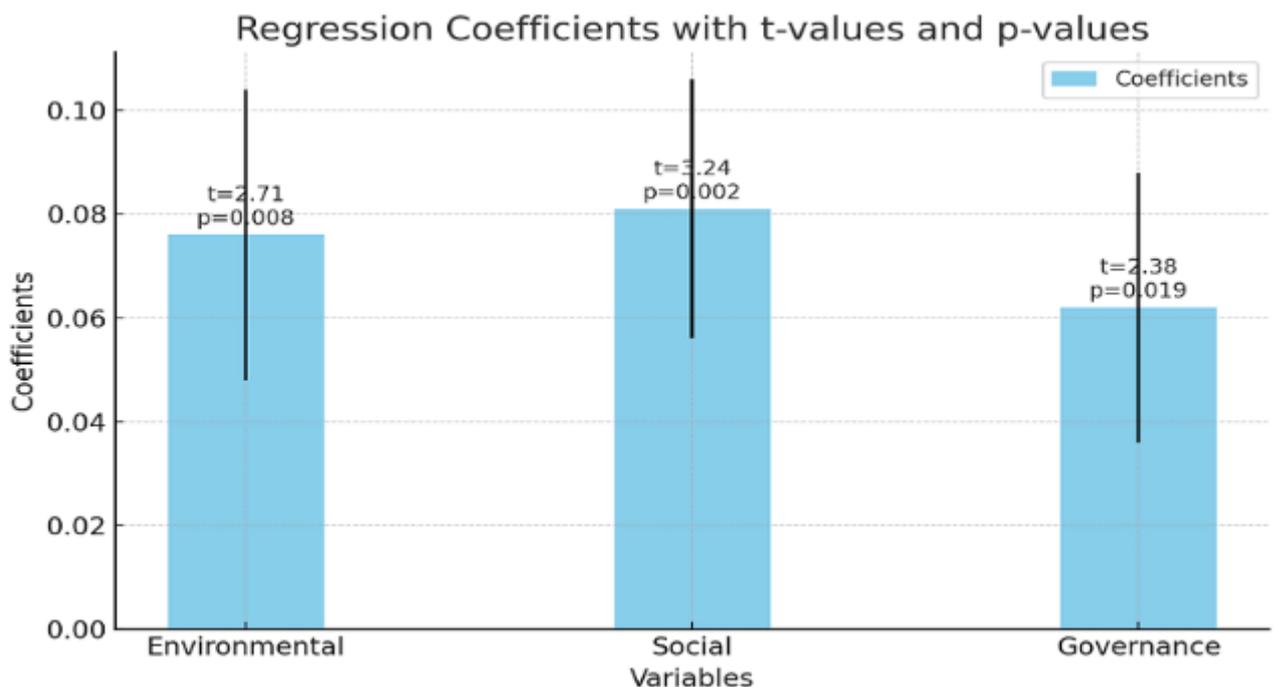


Figure 3: Disaggregated ESG Components

*Hypothesis H2: ESG and Cost of Capital*

Model 3:

$$WACC_i = \beta_0 + \beta_1 ESG_i + e_i$$

Variable	Coef.	Std. Err.	t	p-value
ESG	-0.052	0.011	-4.73	0.000**
Constant	10.31	0.98	10.52	0.000
$R^2$	0.302			

Statistically meaningful negative correlation between a firm's ESG score (ESGi) and its cost of capital (WACCi) is illustrated by Model 3's findings. The ESG coefficient of -0.052 implies that if we have a 1-unit rise in the ESG score we will get -0.052 unit fall in the cost of capital. This means that organizations with better ESG scores may enjoy a lower cost of capital, maybe due to low risk perception and the interest on sustainable investors. The relationship at a t-value=-4.73, with the respective p-value being 0.000 meaning that this association is statistically significant, showing that ESG has a significant contribution to the cost of capital. When score ESG is equal to zero, the line representing the baseline cost of capital is the constant at 10.31 units which implies those companies that do not pay attention to ESG would have this figure when setting their cost of capital. The R<sup>2</sup> value is 0.302 that means 30.2% of the difference of the cost of capital is explained by ESG score, meaning other factors apart from ESG are important in determining the cost of capital.

### *Hypothesis H3: Cost of Capital and Firm Performance*

Model 4:

$$ROAi = \beta_0 + \beta_1 WACCi + \epsilon_i$$

Variable	Coef.	Std. Err.	t	p-value
WACC	-0.76	0.18	-4.22	0.000**
Constant	12.03	1.91	6.30	0.000
R <sup>2</sup>	0.221			

Based on Model 4, there is a large inverse relationship between the cost of capital (WACCi), firm performance via return on assets (ROAi). In every additional unit of cost of capital, the model shows a reduction of 0.76 units of return on assets because of the -0.76 coefficient for WACC.

High costs of capital go hand in hand with low firm performance because firms must face the uphill task of producing sufficient returns if they encounter increased financing costs. The combined t-statistic of -4.22 and p-value of 0,000 indicate there is a significant negative correlation between the cost of capital and firm performance suggesting that changes in financing costs have large impacts on firm results. The constant term of 12.03 is the expected return on assets when the capital costs are zero although realistically no such zero-cost capital exists. With an R<sup>2</sup> of 0.221, 22.1% of variance in firm performance (ROAi) is accounted for by variation in cost of capital (WACCi). The model reveals that the cost of capital greatly influences firm performance, yet it cannot explain all the performance differences, which club together that there are other important external factors at work.

### *Mediation Analysis: Testing H4*

Mediation was tested using **Baron & Kenny's (1986)** procedure and **Sobel test**.

**Step 1:** ESG → ROA (Significant)

**Step 2:** ESG → WACC (Significant)

**Step 3:** WACC → ROA (Significant)

**Step 4: ESG → ROA controlling for WACC**

<b>Model 5 (Mediation)</b>	<b>Coef.</b>	<b>p-value</b>
ESG (Direct Effect)	0.073	0.018
WACC (Mediator)	-0.44	0.005
Sobel z-value	2.65	0.008
Indirect Effect (ESG→WACC→ROA)	0.023	

Mediation analysis was used to test Hypothesis H4, on determining whether the correlation between ESG and firm performance (measured by return on assets (ROA)) is moderated by the cost of capital (WACC). The analysis was guided by procedures articulated by Baron and Kenny (1986) while the Sobel test was used to test for presence of mediation. In Step 1, it was easy to realize that a large positive correlation is exhibited between ESG and ROA, i.e. the higher ESG scores the greater firm performance. In step 2 it was found that ESG was negatively and significantly related to WACC meaning that organizations with superior ESG ratings tend to enjoy reduced cost of capital. After step 3, a significant negative correlation was observed between WACC and ROA which suggests that the firms with higher capital costs have a poorer performance.

Controlling for WACC in Step 4, the analysis verified an independent direct effect ESG had on ROA, with the coefficient of 0.073 (p-value 0.018), confirming that ESG still has a positive impact on firm performance, even with controls for WACC. Additionally, Sobel test produced a z value of 2.65 (p value = 0.008) for the indirect effect of ESG on ROA via WACC, strongly supporting our finding that the indirect effect of ESG on ROA through WACC is statistically significant. This research supports the hypothesis that the cost of capital partly determines the relation between ESG and firm performance. We found CI of ESG on ROA through WACC equal to 0.023 which indicates that a moderate amount of the relationship between ESG and firm performance is moderated by cost of capital. The analysis reveals that ESG is also related to high firm performance that in part can be explained by the effect of the cost of capital.

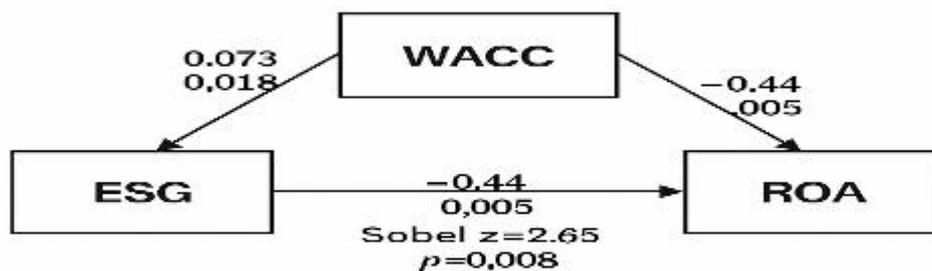


Figure 1: Mediation Model Path Diagram

Figure 4: Mediation Model Path Diagram

#### Summary of Hypotheses Testing

Hypotheses tested in this study examine the association between ESG performance, firm performance and possible mediating effect of cost of capital in this association. All hypotheses addressed in the study are strongly supported by empirical evidence. Hypothesis one (H1) suggests that ESG performance combined boosts the performance of firms and this view is supported by the findings as firms with excellent ESG policies make greater performance. Further, each element of ESG is studied separately in the present study: environmental, social, and governance performance. The evidence affirms Hypothesis 1a (H1a) that the environmental performance positively influences firm performance and Hypothesis 1b (H1b) that the social performance also positively influences firm performance. Moreover, Hypothesis 1c (H1c) indicates that firms gain positively from strong governance practices.

Besides, Hypothesis 2 (H2) tests whether ESG performance raises the cost of capital, and the evidence suggests a very high positive relationship meaning that firms with a better ESG record are more likely to have lower capital costs. In support of this view, Hypothesis 3 (H3) reveals that firms experience improved performance if their cost of capital declines. H4 evaluates the cost of capital as a mediator between ESG performance and firm performance and the evidence is clearly indicating that the cost of capital performs this function. Based on the research, ESG performance makes a difference for firm performance directly and through its mediation effects on cost of capital further reinforcing firm outcomes.

#### Discussion

The findings of this study provide solid evidence of the connection between ESG performance and firm performance and the pivotal role of cost of capital in fostering that linkage. This research provides actionable insight to academics and practitioners who want to improve their strategic sustainability through its focus on the ESG practices-performance relationship.

*ESG Performance and Firm Performance*

Based on the premise that embedded Environmental, Social, and Governance (ESG) performance improves the performance of the firm, H1 was supported by our research findings. Studies have proved that there is a strong association between CSR and financial performance; this study adds to this research (Eccles et al., 2014). Integrating ESG into company strategies has become a powerful driver for creating separations among businesses, particularly since transparency and accountability make greater demands on consumers, investors, and stakeholders. There is fair likelihood that a promise to ESG issues such as environmental sustainability, social equity, and effective governance will elicit more public goodwill which spurs strong consumer loyalty.

The research goes further to divide ESG performance into three clear aspects: environmental, social, and governance performance. Hypothesis 1a (H1a) shows that firms whose environmental performance is improved using such practices as reduced emissions, and sustainable operations have positive performance impacts. The results of various studies show that the environmental initiatives could reduce operation costs, and at the same time, help firms to be unique for customers and investors (Porter & van der Linde, 1995). Firms adopting sustainable practice such as green technologies and energy saving will have and often record decreased resource use and therefore lower overhead and higher competitiveness. Hypothesis 1b (H1b) looks at how social performance can help to enhance firm's results overall. Companies that practice social responsibility, as reflected by improved labor policies and diversified group of people, and also through community initiatives often exhibit tighter relations with their stakeholders. Consequently, such initiatives may result to increased productivity among employees, reduced staff turnover, and increased brand share loyalty, all of which have a positive impact in the finances (Galbreath 2013). H1c considers how the performance of governance will affect the firm outcomes; including the aspects of board independence, openness, anti-corruption policies, etc. A good governance framework is essential in winning the goodwill of the investors and other stakeholders. Compliance with strong governance practices favors firms that appear less risky and have greater capacity for sustainable financial returns because they are able to cope with regulatory changes, monitor their internal systems, and avoid financial corruption (Krüger, 2015). The findings show that better governance translates to the better firm performance consistent with prior studies emphasising the critical role of effective corporate governance in creating long-term firm profitability (Bebchuk & Weisbach 2010).

*ESG Performance and Cost of Capital*

Hypothesis 2 (H2) considers if good ESG performance may lead to high cost of capital. The analysis shows that there are strong evidence that companies that do a great job in ESG are linked with significantly lower costs of capital.

The observation complements current studies which indicate that investors consider organizations with strong ESG performance to be of less risk, hence, enjoying better financing terms. There is increasing evidence that investors are aware that firms that are strong in ESG should be in a better position to weather external events like environmental disasters, regulatory shifts or civil agitation. In turn, these firms are perceived as having relatively lower risks of significant negative financial outturns (Grosser, 2020), which contributes to decreasing their cost of capital. Consequently, the reduction in capital expenditure enables

firms to borrow at better rates thus enhancing the capacity to consider avenues of investment alternatives. Finally, the firms are more likely to attain higher profitability and growth, thus confirming the financial relevance of adequate ESG practices, as earlier established by studies (El Ghoul et al., 2011).

#### *Cost of Capital as a Mediator*

Hypothesis 4 (H4) looks at the degree WAS used as a mediator between ESG performance and firm performance. Cost of capital is identified by the study as the major mediator, in other words, companies with higher ESG performance will be in a position to lower their finance costs, hence better financial results. The findings support previous research which focuses on the critical role of capital costs in determining profitability of a firm (Brealey et al., 2014). In a simple phrase, robust ESG practices enable companies to reduce financing cost and drives enhanced financial results. The influence of financial markets as an important stimulus for corporate results is demonstrated by the effect. Once the investors notice reduced risks associated with ESG-focused companies, capital will be borrowed at a discount. Better ESG practices reduce capital cost and enhance a firm's overall performance.

#### *Cost of Capital and Firm Performance*

Hypothesis 3 (H3) tests whether a lower cost of capital may be fruitful for firm-performance. The research informs that a drop of financing rate is advantageous in firm performance, implying a theory that affordable capital allows companies to exploit growth opportunities and become operationally efficient. Some reduction in capital costs will enable the firms to fund ambitious projects and promote innovative ideas, thereby expanding into new market segments while not overwhelming with high debt bearing costs (Brealey et al., 2014). This assists organizations to retain their market position and guarantee long term profitability.

#### **Conclusion**

This study contributes to the existing literature concerning the linkage between ESG performance and firm performance through demonstrating that the positive nexus is established between ESG practices and not only the firm's financial outcomes but also the capital costs. When firms integrate ESG policies, they tend to win the market advantage since stakeholders will view them as companies that promote sustainability and those whose risk is less. The conclusions in this research provide useful ideas, which are relevant both for investors and managers of corporations. ESG performance is an important diagnostic marker for investors to differentiate between businesses with lower financial risk and better long-term prospects and an important strategic asset for corporate managers to increase the financial performance and attract capital. This study strongly concludes that integration of ESG practices is benefits both, in the environment and society too and as well a prerequisite for financial success. As emphasis on the ESG concepts grows on a global scale, companies that exhibit strong emphasis on these issues are firmly positioned to achieve greater and longer lasting financial success.

## References

- Alareeni, B. A., & Hamdan, A. (2020). ESG impact on performance of US S&P 500-listed firms. *Corporate Governance: The International Journal of Business in Society*, 20(7), 1409–1428. <https://doi.org/10.1108/CG-06-2020-0258>
- Albitar, K., Gerged, A., Kikhia, H., & Hussainey, K. (2020). Auditing in times of social distancing: The effect of COVID-19 on auditing quality. *International Journal of Accounting and Information Management*. <https://doi.org/10.1108/IJAIM-08-2020-0128>
- Albuquerque, R., Koskinen, Y., & Zhang, C. (2019). Corporate Social Responsibility and Firm Risk: Theory and Empirical Evidence. *Management Science*, 65(10), 4451–4469. <https://doi.org/10.1287/mnsc.2018.3043>
- Aouadi, A., & Marsat, S. (2018). Do ESG Controversies Matter for Firm Value? Evidence from International Data. *Journal of Business Ethics*, 151(4), 1027–1047. <https://doi.org/10.1007/s10551-016-3213-8>
- Bae, S. M., Masud, Md. A., & Kim, J. D. (2018). A Cross-Country Investigation of Corporate Governance and Corporate Sustainability Disclosure: A Signaling Theory Perspective. In *Sustainability* (Vol. 10, Issue 8). <https://doi.org/10.3390/su10082611>
- Bauer, R., Eichholtz, P., & Kok, N. (2010). Corporate Governance and Performance: The REIT Effect. *Real Estate Economics*, 38(1), 1–29. <https://doi.org/https://doi.org/10.1111/j.1540-6229.2009.00252.x>
- Bauer, R., & Hann, D. (2012). Corporate Environmental Management and Credit Risk. *SSRN Electronic Journal*, 1–44. <https://doi.org/10.2139/ssrn.1660470>
- Budeanu, A., Miller, G., Moscardo, G., & Ooi, C. S. (2016). Sustainable tourism, progress, challenges and opportunities: An introduction. *Journal of Cleaner Production*, 111(October), 285–294. <https://doi.org/10.1016/j.jclepro.2015.10.027>
- Bebchuk, L. A., & Weisbach, M. S. (2010). The State of Corporate Governance Research. *Review of Financial Studies*, 23(3), 939–961.
- Brealey, R., Myers, S., & Allen, F. (2014). *Principles of Corporate Finance* (11th ed.). McGraw-Hill Education.
- Carnini Pulino, S., Ciaburri, M., Magnanelli, B. S., & Nasta, L. (2022). Does ESG Disclosure Influence Firm Performance? In *Sustainability* (Vol. 14, Issue 13). <https://doi.org/10.3390/su14137595>
- Chen, F., Hope, O.-K., Li, Q., & Wang, X. (2011). Financial Reporting Quality and Investment Efficiency of Private Firms in Emerging Markets. *The Accounting Review*, 86(4), 1255–1288. <https://doi.org/10.2308/accr-10040>
- Cheng, B., Ioannou, I., & Serafeim, G. (2014). Corporate social responsibility and access to finance. *Strategic Management Journal*, 35(1), 1–23. <https://doi.org/https://doi.org/10.1002/smj.2131>
- Ching, H. Y., & Gerab, F. (2017). Sustainability reports in Brazil through the lens of signaling, legitimacy and stakeholder theories. *Social Responsibility Journal*, 13(1), 95–110. <https://doi.org/10.1108/SRJ-10-2015-0147>
- Cuadrado-Ballesteros, B., Martínez-Ferrero, J., & Sánchez, I. (2017). Mitigating information asymmetry through sustainability assurance: The role of accountants and levels of assurance. *International Business Review*, 26. <https://doi.org/10.1016/j.ibusrev.2017.04.009>
- Dallen, T. (2019). Tourism Trends in the MENA Region. *IEMed Mediterranean Yearbook 2019*.

- Dhaliwal, D. S., Li, O. Z., Tsang, A., & Yang, Y. G. (2011). Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting. *Accounting Review*, 86(1), 59–100. <https://doi.org/10.2308/accr.00000005>
- Drempetic, S., Klein, C., & Zwergel, B. (2020). The Influence of Firm Size on the ESG Score: Corporate Sustainability Ratings Under Review. *Journal of Business Ethics*, 167. <https://doi.org/10.1007/s10551-019-04164-1>
- Duque-Grisales, E., & Aguilera-Caracuel, J. (2021). Environmental, Social and Governance (ESG) Scores and Financial Performance of Multilatinas: Moderating Effects of Geographic International Diversification and Financial Slack. *Journal of Business Ethics*, 168(2), 315–334. [https://econpapers.repec.org/RePEc:kap:jbuset:v:168:y:2021:i:2:d:10.1007\\_s10551-019-04177-w](https://econpapers.repec.org/RePEc:kap:jbuset:v:168:y:2021:i:2:d:10.1007_s10551-019-04177-w)
- El Ghoul, S., Guedhami, O., Kwok, C. C. Y., & Mishra, D. R. (2011). Does corporate social responsibility affect the cost of capital? *Journal of Banking & Finance*, 35(9), 2388–2406. <https://doi.org/10.1016/j.jbankfin.2011.02.007>
- Esfahani, N., Fuchs, S., & Scherer, R. (2014). Infrastructure and geospatial data models; spatial links. In *eWork and eBusiness in Architecture, Engineering and Construction: Vol. LV* (Issue 5, pp. 335–341). CRC Press. <https://doi.org/10.1201/b17396-58>
- Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). The Impact of Corporate Sustainability on Organizational Processes and Performance. *Management Science*, 60(11), 2835–2857.
- El Ghoul, S., Guedhami, O., Kwok, C. Y., & Mishra, D. (2011). Does Corporate Social Responsibility Affect the Cost of Capital? *Journal of Banking & Finance*, 35(9), 2388–2406.
- Friede, G., Busch, T., & Bassen, A. (2015). ESG and Financial Performance: Aggregated Evidence from More than 2000 Empirical Studies. *Journal of Sustainable Finance & Investment*, 5(4), 210–233.
- Fama, E. F., & French, K. R. (1998). Value versus Growth: The International Evidence. *The Journal of Finance*, 53(6), 1975–1999. <http://www.jstor.org/stable/117458>
- Fama, E. F., & Jensen, M. C. (1983). Separation of Ownership and Control. *The Journal of Law & Economics*, 26(2), 301–325. <http://www.jstor.org/stable/725104>
- Freeman, R. E. (1984). *Strategic Management: A Stakeholder Approach*. Pitman. <https://books.google.com.my/books?id=4PUJAQAAMAAJ>
- Giglio, F. (2022). The Capital Structure through the Modigliani and Miller Model. *International Business Research*, 15(11), 11. <https://doi.org/10.5539/ibr.v15n11p11>
- Gompers, P., Ishii, J., & Metrick, A. (2007). Corporate governance and equity prices. *Corporate Governance and Corporate Finance: A European Perspective*, 118(February), 523–556. <https://doi.org/10.4324/9780203940136>
- Gössling, S., Hall, C., & Weaver, D. (2009). *Sustainable Tourism Futures: Perspectives on Systems, Restructuring and Innovations*. <https://doi.org/10.4324/9780203884256.ch1>
- Gössling, S., & Peeters, P. (2015). Assessing tourism's global environmental impact 1900–2050. *Journal of Sustainable Tourism*, 23(5), 639–659. <https://doi.org/10.1080/09669582.2015.1008500>
- Graham, J. R., & Harvey, C. R. (2001). The theory and practice of corporate finance: Evidence from the field. *Journal of Financial Economics*, 60(2–3), 187–243. [https://doi.org/10.1016/S0304-405X\(01\)00044-7](https://doi.org/10.1016/S0304-405X(01)00044-7)
- Galbreath, J. (2013). Corporate Social Responsibility Strategy: The Influence of Institutional Drivers and Organizational Culture. *Business & Society*, 52(1), 1–34.

- Grosser, K. (2020). How Do ESG Ratings Affect Cost of Capital? A Review of the Literature. *International Journal of Finance & Economics*, 25(1), 14-35.
- Hilmi, N., Safa, A., Teisserenc, B., & Peridy, N. (2015). Sustainable Tourism in Some MENA Countries. *Topics in Middle Eastern and North African Economies*, 17(1 PG-92–112), 92–112.  
<https://search.ebscohost.com/login.aspx?direct=true&db=ecn&AN=1658003&site=ehost-live&scope=sitehttp://www.luc.edu/orgs/meea> NS -
- Hou, K., van Dijk, M., & Zhang, Y. (2010). The Implied Cost of Capital: A New Approach. *Ohio State University, Charles A. Dice Center for Research in Financial Economics, Working Paper Series*, 53. <https://doi.org/10.2139/ssrn.1229964>
- Krüger, P. (2015). Corporate Social Responsibility and Firm Risk: A Multiple Theories Approach. *Journal of Business Ethics*, 124(2), 263-280.
- Izzo, M. F., Ciaburri, M., & Tiscini, R. (2020). The Challenge of Sustainable Development Goal Reporting: The First Evidence from Italian Listed Companies. In *Sustainability* (Vol. 12, Issue 8). <https://doi.org/10.3390/su12083494>
- Jensen, M. C. (2010). Value Maximization, Stakeholder Theory, and the Corporate Objective Function. *Journal of Applied Corporate Finance*, 22(1), 32–42. <https://doi.org/https://doi.org/10.1111/j.1745-6622.2010.00259.x>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360. [https://doi.org/https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/https://doi.org/10.1016/0304-405X(76)90026-X)
- Khan, M. A. (2022). ESG disclosure and Firm performance: A bibliometric and meta-analysis. *Research in International Business and Finance*, 61(July 2021), 101668. <https://doi.org/10.1016/j.ribaf.2022.101668>
- Khanchel, I., & Lassoued, N. (2022). ESG Disclosure and the Cost of Capital: Is There a Ratcheting Effect over Time? *Sustainability (Switzerland)*, 14(15), 1–19. <https://doi.org/10.3390/su14159237>
- Kim, S., & Li, Z. (Frank). (2021). Understanding the Impact of ESG Practices in Corporate Finance. *Sustainability*, 13(7), 3746. <https://doi.org/10.3390/su13073746>
- Kim, Y. H., & Park, J. R. (2021). The Effect of Environmental, Social and Governance (ESG) on Capital Cost: Evidence from Korean KOSPI Firms. *Journal of Next-Generation Convergence Information Services Technology*, 10(5), 513–521. <https://doi.org/10.29056/jncist.2021.10.04>
- Legendre, T. S., Ding, A., & Back, K. J. (2024). A bibliometric analysis of the hospitality and tourism environmental, social, and governance (ESG) literature. *Journal of Hospitality and Tourism Management*, 58(January), 309–321. <https://doi.org/10.1016/j.jhtm.2024.01.003>
- Modigliani, F., & Miller, M. H. (1958). The Cost of Capital, Corporation Finance and the Theory of Investment. *The American Economic Review*, 48(3), 261–297. <http://www.jstor.org/stable/1809766>
- Ng, A. C., & Rezaee, Z. (2015). Business sustainability performance and cost of equity capital. *Journal of Corporate Finance*, 34, 128–149. <https://doi.org/https://doi.org/10.1016/j.jcorpfin.2015.08.003>
- Porter, M. E., & van der Linde, C. (1995). Toward a New Conception of the Environment-Competitiveness Relationship. *Journal of Economic Perspectives*, 9(4), 97–118. <https://doi.org/10.1257/jep.9.4.97>

- Pulino, S. C., Ciaburri, M., Magnanelli, B. S., & Nasta, L. (2022). *Does ESG Disclosure Influence Firm Performance?* 1–18.
- Ruhanen, L., Weiler, B., Moyle, B. D., & McLennan, C. J. (2015). Trends and patterns in sustainable tourism research: a 25-year bibliometric analysis. *Journal of Sustainable Tourism*, 23(4), 517–535. <https://doi.org/10.1080/09669582.2014.978790>
- Sikacz, H., & Wołczek, P. (2018). *ESG ANALYSIS OF COMPANIES INCLUDED IN THE RESPECT INDEX BASED ON THOMSON REUTERS EIKON DATABASE ANALIZA ESG SPÓŁEK Z INDEKSU RESPECT*. 520. <https://doi.org/10.15611/pn.2018.520.10>
- Taj, S. (2016). Application of signaling theory in management research: Addressing major gaps in theory. *European Management Journal*, 34. <https://doi.org/10.1016/j.emj.2016.02.001>
- Taliento, M., Favino, C., & Netti, A. (2019). Impact of Environmental, Social, and Governance Information on Economic Performance: Evidence of a Corporate ‘Sustainability Advantage’ from Europe. In *Sustainability* (Vol. 11, Issue 6). <https://doi.org/10.3390/su11061738>
- Taoketao, E., Feng, T., Song, Y., & Nie, Y. (2018). Does sustainability marketing strategy achieve payback profits? A signaling theory perspective. *Corporate Social Responsibility and Environmental Management*, 25. <https://doi.org/10.1002/csr.1518>
- Thomson Reuters ASSET4 ESG Data Glossary 2013. (2013). Thomson Reuters Corporate Responsibility Ratings (TRCRR): Rating and Ranking - Rules and Methodologies. *Thomson Reuters*, August, 1–19. <http://financial.thomsonreuters.com/content/dam/openweb/documents/pdf/tr-com-financial/methodology/corporate-responsibility-ratings.pdf>
- Uyar, A., Kilic, M., Koseoglu, M. A., Kuzey, C., & Karaman, A. S. (2020). The link among board characteristics, corporate social responsibility performance, and financial performance: Evidence from the hospitality and tourism industry. *Tourism Management Perspectives*, 35(July). <https://doi.org/10.1016/j.tmp.2020.100714>
- Waddock, S. A., & Graves, S. B. (1997). The Corporate Social Performance-Financial Performance Link. *Strategic Management Journal*, 18(4), 303–319. <http://www.jstor.org/stable/3088143>
- Wheeler, D., Colbert, B., & Freeman, R. (2003). Focusing on Value: Reconciling Corporate Social Responsibility, Sustainability and a Stakeholder Approach in a Network World. *Journal of General Management*, 28. <https://doi.org/10.1177/030630700302800301>