

## THE EFFECT OF ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) PRACTICES AND SAFETY ON FINANCIAL PERFORMANCE

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### ABSTRACT

ESG and Organizational Safety have become an area of major concerns for the firms considering their financial performance as stakeholders are demanding the incorporation of ESG & Safety dimensions in the firms' operations. Furthermore, this study investigate the Sample of the study consists of top 100 firms based on the market capitalization firms, listed on the Pakistan Stock Exchange. Secondary data were collected related to variables of the study. Moreover, content analysis was employed to measure the ESG & Safety dimension, Financial Performance. Descriptive statistics were used to describe the characteristics of each individual variable followed by the correlation analysis to ascertain the association among the variables. Finally, the regression analysis was applied to determine the dependency of ROA (firm financial performance) on the independent variables. Findings of the study indicate the significant positive effect of ESG & Safety on the firm financial performance. The control variables also demonstrated the positive and significant effect on the firm financial performance.

**Keywords:** - ESG, Safety, Firm Financial Performance, Stakeholder Theory, Agency Theory, Legitimacy Theory, Upper Echelons Theory

### INTRODUCTION

At the moment, firms are expected not only to effectively conduct their business operations but also to be attentive to how their businesses impact the surrounding environment (Junius et al., 2020). ESG demonstrates to integrate the firms' performance concerning their economic, social, and environmental and the corporate governance performance (Ahmad et al., 2021). Recently, regulators and policymakers are paying more attention the corporate ESG responsibility. Research on ESG on corporate value has attracted the worldwide attraction (Zhou et al., 2022). Time spanning the past decade as well as following the global financial crises, the impact of climate change and the various corporate scandals worldwide, governments, investors and consumers became more demanding requiring transparency regarding all the matters affecting the environmental, economic and social dimensions. Numerous researches have investigated as whether integrating the ESG

concept into a firm's core processes rewards shareholders, yield high profit, and increase its valuation. However, results are inconclusive, ambiguous and sometimes contradictory (Naimy et al., 2021).

Recently, safety dimension is also combined with ESG in organizational contexts. Combining safety with the ESG can encourage more holistic approach on the firm sustainability. It takes into the view that ESG can have relevance for the employee safety. Moreover, merging these areas may result in the better usage of expertise and resources. Besides, consolidating the data and their reporting on both ESG and safety can make easy the communication and compliance for the stakeholders. ESG and safety are considered the two important areas which can significantly affect the firm performance, sustainability and reputation (McNeil, 2023).

ESG & S refer to Environmental, Social, Governance and Safety which is a globally

trending strategy. It has been endorsed by the researchers and economic analysts that these are some of the factors considered necessary in the uplifting of a society's standards and economic growth of a nation. With awareness among investors and other decision-making bodies of a firm regarding the ESG through increased work on the matter has made a significant impact of their decision making which ultimately has led them to exceptionally increase value of their investments. While observing the phenomenon of Globalization and to cope with the factors affiliated with it, it has become imminent for the decision-making stakeholders to consider ESG & S to forecast the outcome of their invested capital. The presence of maintained guidelines can affect the financial status of the firm. These drives frequently involve submitting financial assets to secure eco-accommodating gear, sending off top-notch guidelines for items, and creating security programs (Park et al., 2019).

In a research study, a problem statement highlights the issues as well as the context which guides scheme of research studies by briefly presenting in a concise manner that what is a current problem or issue under investigation and suggests that how a study can better address or resolve it. Moreover, a precise and a comprehensive explanation of a given problem statement suitably elucidate a particular research question, usually provided in the end of the section where problem statement is concluded or ends (Dine et al., 2015). In this view, the following section explains the issues or problem that this study aims to resolve in terms of elucidating that what is ESG & Safety, why its investigation is important, which theories suitably explain this phenomenon, what are its implications for a firm performance, what type of proxies are commonly employed to measure ESG & Safety and the firm financial performance, what are different other factors or variables which are or can possibly affect the firm or organizational financial performance, that are required to be kept controlled so as to better inquire the ESG & Safety impact on the firm or organizational financial performance, and why top management commitment and the organization strategy should be investigated as the moderating mechanism influencing the nexus

of ESG & Safety with the firm financial performance.

Over the last two decades, ESG and the Corporate Social Responsibility (CSR) have captured an ample interest demonstrating the grave sensitivity of corporations and investors towards the ESG issues. Firms are increasingly undertaking the CSR related activities and are engaging with the ESG issues. The leading firms are now showing commitment to serve interests of all stakeholders including employees, customers, shareholders, suppliers and communities. ESG and CSR are the terms which are repeatedly used to illustrate the stakeholders' value maximization perspective. ESG entails incorporating the ESG concerns into the firm decisions while CSR refers to the firm role itself as being the socially responsible. Firms may take into account the significance of social responsibility in terms of to properly integrate the aspects of social well-fare, environment, ethics and human rights into business strategies and routine operations (Rau et al., 2024). ESG has evolved from a niche sub-field into a main-stream practice and its biggest driver is recognition of the fact that ESG is critical to a firm long-term (financial) value. Viewing ESG through the long-term value lens encompass various implications for the academic research as long-term value depicts that the issues can be studied as they create values whether or not they fit into the ESG bucket (Edmans, 2023). This study aims to examine the ESG & Safety effect on the firm or corporate financial performance. Controlling for the firm age, firm size, leverage, R&D expenditures and industry type.

The research questions of the study as follow:

- Does ESG dimensions (Environmental, Social, and Governance) have impact on the Firm Financial Performance?
- Does Organizational Safety have impact on the Firm Financial Performance?

In line with the above research questions, research objectives of the study are as follows:-

- To examine the impact of ESG dimensions (Environmental, Social, Governance) on the Firm Financial Performance.

- To examine the impact of Organizational Safety on the Firm Financial Performance.

There are limited research studies conducted in the Pakistani context that takes into consideration the ESG & Safety can influence the organizational outcomes. In this respect, this study provides an opportunity to shed light not only on the ESG & Safety-firm financial performance. Besides, findings of this study may also be beneficial for the top management of Pakistani companies specifically and all firms in general to take into account the importance of how their commitment and strategic direction towards the ESG & Organizational Safety can affect the firm financial outcomes while devising the relevant policies from top to down.

### **LITERATURE REVIEW**

The empirical research which purposes to elucidate the relationship of financial performance with ESG in general highlight contradictory view. Different studies have investigated this relationship with a focus on the social and environmental dimensions while ignoring the governance dimension. ESG variables have negative significant effect on a firm's different kinds of risks (Sassen et al., 2016). Thus, the company's environmental, social, and governance (ESG) performance enhances its operational success by cutting the costs and minimizing the risks. Any variable that changes direction or size of influence on the relationship of independent with dependent variables. In our study, the relationship between the ESG & Safety concerns. The stakeholder theory posits that shareholders are not the only group having an interest in a company. Other stakeholders, such as investors, creditors, workers, customers, as well as society and the environment, also have a stake in an organization. Hence, it is advantageous for a company to prioritize its concern for society and the environment, since it aligns with the interests of all stakeholders and supports the company's objective of sustainable management.

The firm social focus as reflected in the corporate social disclosure affects its financial performance. This follows the stakeholders' theory that such types of initiatives are beneficial for the firms as they gain the notable attention by

satisfying the external and internal stakeholders' needs. Furthermore, it endorses the stance that these in return improve the firms' reputation, license to operate and legitimacy, which positively affect the firms' financial performance (Zahid et al., 2020).

The corporate social performance deals with three dimensions, environmental, social and economic sustainability. The social dimension comprises of efforts to satisfy the external and internal stakeholders' demands. Internal stakeholders include employees and workers while external stakeholders deal with broad range of external society as well as their demands (Zahid et al., 2019).

The legitimacy of a corporation is crucial for its survival and advancement (Du & Vieira, 2012) and relies greatly on the perception inside its contextual environment; it has an influential function. Therefore, the issue of computer graphics becomes a crucial component in the assessment of computer science principles. In this context, ESG rating scores seem to be a suitable metric to serve as a proxy for corporate social performance (CSP). ESG, an acronym for Environmental, Social, and Governance, encompasses the three crucial criteria used in investment markets to assess a firm performance represented in non-financial aspects (Atan et al., 2018). Stakeholders are very much interested in comprehending a firm's performance in these areas.

Investments in ESG specific open-ended funds and exchange-traded funds surged to \$51.1 billion in 2020, a twofold increase compared to the \$21.4 billion invested in 2019 and a tenfold increase compared to the \$5.4 billion invested in 2018. As of the end of 2020, there were 369 portfolios that included ESG funds. The total value of U.S. ESG funds increased to \$236.4 billion, representing a growth of over 70% compared to the previous year (2019). Publicly-traded firms have been compelled to reveal economic impacts that the ESG operations have, voluntarily owing to increase in the socially responsible investment alternatives. This has resulted in an improvement in the quality of information transparency for investors (Mervelskemper & Streit, 2017)

The disclosure of nonfinancial information, namely pertaining to ESG considerations, is

equally relevant to examination of economic issues. The notion of sustainability has gained significant attention over the last two decades owing to the fast changes taking place in the corporate environment, as well as the pressure exerted by regulatory and institutional organizations (Zuraida et al., 2018).

Krechovská and Procházková (2014) argue that in order to achieve sustainability, organizations must improve their corporate governance procedures, which have a substantial impact on the organizational performance. Consequently, the global trend towards sustainability reporting has compelled organizations to include nonfinancial information (Clarkson et al., 2011; Cohen et al., 2011).

Benabou and Tirole (2010) provide three hypotheses intending to explain that why corporations choose to participate on the social responsibility side from a theoretical standpoint: (1). The social responsibility strategies benefit the company in the long term by preventing short-sighted actions and enhancing its market position. (2) Shareholders have entrusted the business with its social obligation and (3) business social responsibility involves business leaders and boards improving their charitable capabilities. The first two hypotheses suggest that the adoption of social activities by the enterprises leads to an improvement in corporate performance and value. Conversely, the third hypothesis proposes that managers engage in social activities (or ESG, etc.) initiatives to improve their image of being socially responsible.

The integration of safety metrics within ESG reporting frameworks has gained significant traction in recent years (Reimsbach et al., 2020). Safety is recognized as a crucial aspect of corporate sustainability and responsible governance, reflecting a commitment to the well-being of employees, communities, and the environment (Sassen et al., 2019).

The social dimension of ESG encompasses the safety aspect (Zhang et al., 2024). Social performance represents the societal effect of business practices on the products delivered and services provided by the firms. Within the domain of organizational performance, safety practices are considered as the indicators of the firm social performance (Taddese et al., 2020).

Prior literature describe sustainable manufacturing system for the product development while complying with the best global practices such as ensuring safety at the workplace (Zhou et al., 2023).

Regulatory compliance forms a foundational aspect of safety management within ESG frameworks (Hopkins, 2008). Companies operating in highly regulated industries, such as manufacturing and construction, face legal obligations to maintain safe working conditions and mitigate risks to health and safety (Wu et al., 2020). Compliance with safety regulations not only reduces legal liabilities but also enhances organizational resilience and sustainability.

ESG investors are placing greater emphasis on safety performance as a key determinant of investment decisions (Amel-Zadeh & Serafeim, 2018). Companies with robust safety management systems and a demonstrated commitment to occupational health and safety are viewed as more attractive investment opportunities, aligning with the principles of responsible investing and long-term value creation (GRI, 2020).

Stakeholder engagement plays a critical role in fostering a positive safety culture within organizations (Guldenmund, 2000). Companies that actively involve employees, communities, and other stakeholders in safety initiatives demonstrate a commitment to transparency, accountability, and mutual trust (Bergström et al., 2021). Strong safety cultures contribute to higher employee morale, increased productivity, and reduced turnover rates (Zohar, 2002).

Stakeholders strongly desire to quantify and measure the firm performance in a suitable manner (Neely & Austin, 2002). Firms need to compete in the complex changing environment which demands to understand and monitor the firm performance. For this reason, performance evaluation has always been remained a priority for the academicians and managers. However, taking into account that how the firm performance is measured, the available literature is not enough and there is also continuous debate regarding this issue. Firm performance is commonly employed as dependent variable in the management research studies. Highly performing companies can better generate greater and long-term profits. The financial profitability may also



result in the beneficial outcomes such as production of better units, high returns by the employees and provision of prime quality products to the firms' customers. Hence, the profit may be considered as the pertinent accounting measure to measure the firm financial performance (Taouab & Issor, 2019).

However, employing accounting data as a measure of firm or corporate financial performance has limitation, as it measures the past performance ignoring the perception of future firm performance that more suitably is reflected in the market-based proxies (Rockmore & Jones, 1996). Therefore, to assess the financial facet of a firm financial performance, both accounting-based proxies like the ROA are used (Gentry & Shen, 2010).

No agreement prevails as regards the exact or best measure of the firm financial performance (Feger, 2006). However, ROA is regarded a sound proxy of a firm or company's financial health (Carton & Hofer, 2006). Therefore, in our study, we have specifically utilized these two indicators, namely ROA, as proxies or measures of the firm or corporate financial performance. These indicators have been previously employed in the different studies conducted by Albitar et al. (2020), Lyon & Shimshack (2015), and Nor et al. (2016).

The increasing importance of ESG performance in augmenting a company's value has attracted the attention of investors, management, and other stakeholders in recent times. In conclusion, ESG and CSR practices improve the firm value or performance (Malik, 2015). Creation of firm value may depend on the integration of ESG into a company's management plan (Rezaee, 2016). According to Shiller (2013), as financial markets are essential to the financing of several social activities, ESG information benefits investors as well as society.

Van Duuren et al. (2016) argued that ESG as well as the basic investment are comparable. Besides, most of investors invest in the companies' shares based on ESG-specific data. Slager et al. (2012) are of the view that many companies evaluate their ESG ratings, and also inform their stakeholders about the ESG issues.

According to Eccles et al. (2014), businesses disclose information to stakeholders as well as shareholders since high-sustainability organizations are better equipped to draw in long-

term investors and have a stronger long-term focus. The term "ESG" describes how a business's corporate governance, social and environmental performance are combined. The goal of both individual and institutional investors is to generate favorable financial returns that positively impact on the environments with promising outcomes for the communities. Hackerts and Moir (2004) document that businesses are currently putting more effort into informing the public about their ESG problems.

Numerous theoretical and empirical studies have been conducted to probe relationship of financial performance with ESG issues. Social impact hypothesis, which proposes a positive correlation, and the trade-off hypothesis, which implies a negative association, are the two opposing theories in theory. Since, ESG is consistent with stakeholder theory and social impact theory, it has intrinsic value (Freeman et al, 2005). ESG is perceived as the valuable asset that offers businesses a competitive advantage. Carroll (1999) asserted that companies are thought to have an obligation to make contributions to society. The stakeholders' interests and benefits including those of employees, customers, governments, banks and local communities, are given priority in the corporate long-term core strategies that agents support (Khlif et al., 2015). Friedman's (2007) neo-classical theory, on the other hand, was centered on the objectives of increasing profits and producing value for managers and owners. The latter hypothesis's proponents contend that attending to the interests of other stakeholder groups can negatively impact the organization's overall performance with unfavorable outcomes (Brown & Caylor, 2006).

On the other side, traditionalist approach or the trade-off hypothesis (Friedman, 2007) asserts that financial performance negatively relates with the ESG practices. Allocating resources to meet social and environmental goals, like investing in pollution control, raising employee pay and benefits, and giving back to the community through sponsorships and contributions, increases costs, lowers profitability, and erodes competitive advantage (Galant & Cadez, 2017). Various results from earlier studies were obtained (McWilliams et al., 2006).

Workers' safety is reflected in the workers' compliance with the applicable work safety

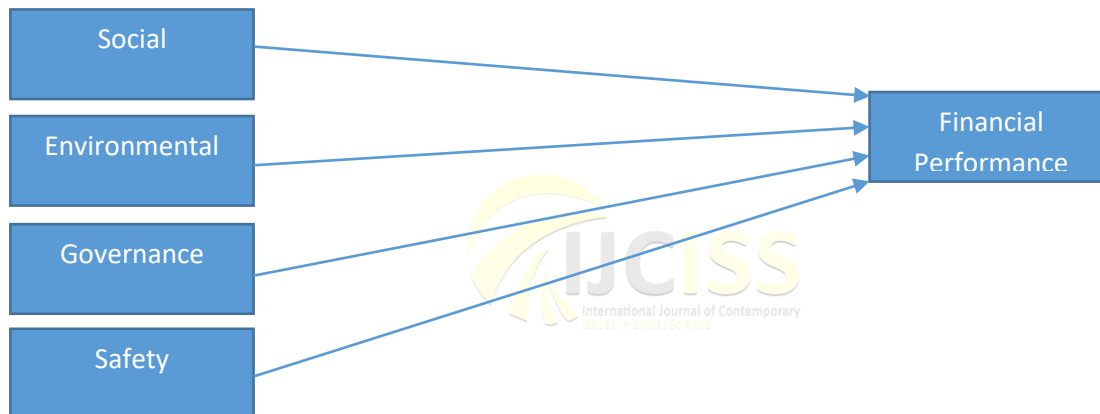
regulations in the firm in order to reduce the work accidents which can occur so that with low accident rates, the investors may see that the firm has good performance that can enhance the firm value (Sunarsih & Augustine, 2024).

A key aspect in the ESG context is the employee safety. The provision of a safe work environment is fundamental to the employees' well-being and it is the basic human right. Firms need to be proactive to identify and mitigate the safety risks in their supply chains, operations and products, also contributing towards the organizational performance. This demands inclusion of to

provide the adequate training, protective equipment and promoting safety culture which encourages the employees to report the probable hazards without any fear of retaliation. For the sake of better firm performance, investors are progressively recognizing the importance of companies' safety performance as an element of their investment decisions (Kube, 2023).

The above discussion highlights impact or influence of ESG & Safety on the firm or corporate financial performance. Therefore, we hypothesize the following: -

### Conceptual Framework:



**H1:** There has a significant impact of the ESG&S on the financial performance.

**H2:** There has a significant impact of Environmental on the financial performance.

**H3:** There has a significant impact of Social on the financial performance.

**H4:** There has a significant impact of Governance on the financial performance.

**H5:** There has a significant impact of Safety on the financial performance.

### METHODOLOGY

Employing an impartial and a positive lens, a better understanding or explanation of social universe can be provided (Andriukaitiene, 2013). The current research study formulates and test different hypotheses based on the pertinent theories, therefore, this study also uses the positivism philosophy and deductive approach.

Current study employs secondary data, collected from the corporate annual reports were retrieved that contained the authentic and reliable data. Data related to variables used in the current study were extracted out of corporate annual reports of selected firms. The CSR, sustainability, and corporate annual reports were retrieved the official websites of selected companies from

2015 to 2019. Unavailable / missing reports were downloaded from the official website of PSX. Balance sheet and income statement data helped compute firm or corporate financial performance variables including ROA, firm size, leverage and corporate R&D expenditures. For measuring ESG dimensions / variables, the content analysis was used.

The full set of elements or cases from which we researchers take a sample is known as the population (Saunders et al., 2009). Population

comprises of all the units on which findings of a research may be applied or generalized. In this study, top 100 companies are sampled listed on PSX based on their market capitalization. The study covers the period from 2015 to 2019. Data related to variables in the current study have been obtained from the annual reports of the firms. Therefore, in total 500 corporate annual reports of top 100 companies are used.

**Model:**

The econometric model used in this study for the panel data analysis are as follows:

$$FP (ROA)_{it} = \alpha + \beta_1 ESG\&S_{it} + \beta_2 Size_{it} + \beta_3 AGE_{it} + \beta_4 LEV_{it} + \beta_5 R\&D_{it} + \beta_6 IT_{it} + \beta_7 Years_{it} + \varepsilon$$

Where:

FP<sub>it</sub> = Financial performance of the ith firm at time t.

ROA<sub>it</sub> = Net income divided by the average total assets of the ith firm at time t.

ESG&S<sub>it</sub> = A combined construct of environmental, social, and governance along with safety performance of the ith firm at time t.

Size<sub>it</sub> = Log of value of the total assets of the ith firm at time t.

AGE<sub>it</sub> = Age of the ith firm at time t measured by the number of years since its listing on the stock exchange.

LEV<sub>it</sub> = Total debt to assets ratio of the ith firm at time t.

R&D<sub>it</sub> = R & Development expenditures of the ith firm at time t.

IT<sub>it</sub> = Dummy variables for controlling the industry effects on ith firm at time t

Years<sub>it</sub> = Dummy variables for controlling the time effects of five years on ith firm at time t.

$\varepsilon_{it}$  = Error term of the ith firm at time t

**RESULTS & DISCUSSIONS**

**Descriptive Statistics**

The descriptive statistics of the independent variables is given in table below:

**Table 1: Descriptive Statistics**

Variables	Mean	Minimum	Maximum	Std Deviation
ESG & S				
Size	9.631	6.364	12.989	0.3610
Age	26.24	10	32	0.0791
Leverage	0.536	0.357	0.864	0.1334
R & D	0.324	0.056	43.791	0.2497

The above summarizes the descriptive statistics of the selected variables in this study. The mean value of firm size is 9.631 while minimum and maximum values are 6.364 and 12.989 respectively which indicates that the firm size on the average shows balance and equally small and large size firms are included in the sample. Similarly, firm age has mean value equal to 26.24 and its minimum value is 10 while maximum value is 32. This shows that average is tilted towards the side of maximum value which suggests that overall, most of the firms in the current study are old aged firms. The mean value of leverage is 0.536 and minimum and maximum values are 0.357 and 0.864 respectively. The minimum value side falls closer to the average value; therefore, it can be implied that most of firms in the selected sample are relying less on the debt financing. The R&D expenditures' mean value is 0.324 while its minimum value is 0.056 and maximum value is 43.791 which indicates that average value falls closer towards the minimum value side showing that most of the selected firms are incurring low expenditures on R&D. All the values of standard deviations are in the medium range suggesting that data has no too high or low variability.





**Table 1: Pearson's Correlation Matrix**

	VIF	1	2	3	4	5	6	7	8	9	10	11	12
TQ	-	1.00											
ROA	-	0.05	1.00										
ESG	1.15	0.02	0.27***	1.00									
ENV	3.83	0.02	0.35***	0.95***	1.00								
SOC	3.82	-0.04	-0.09*	0.48***	0.22***	1.00							
GOV	3.28	0.07	0.31***	0.82***	0.82***	0.06	1.00						
SAF	3.66	-0.04	-0.05	0.50***	0.23***	0.85***	0.08*	1.00					
FAge	1.13	0.00	0.06	-0.15***	-0.08	-0.32***	-0.03	-0.25***	0.12**	-0.22***	1.00		
FSize	1.11	-0.01	-0.23***	-0.28***	-0.34***	0.01	-0.21***	0.02	0.26***	-0.03	0.06	1.00	
FLeverage	1.01	0.01	-0.05	0.04	0.05	0.02	0.01	0.04	0.04	0.05	-0.02	0.03	1.00

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

\* . Correlation is significant at the 0.05 level (2-tailed)

The above table also presents the correlation analysis. The ROA have positive and significant association with the composite ESG dimension and Environmental dimension which illustrates that ESG practices contributes towards the firms' profitability (financial performance) specifically focus on environment dimension is associated to increase the firm profitability. The ROA has weak negative and significant association with the social dimension which depicts that focusing on social component may retard the firms' profitability. The governance dimension is positively and significantly associated with the ROA which demonstrates that better governance can favorably improve the firms' operations to increase the profit level. Safety, too management commitment, firm age and leverage are insignificantly correlated with the ROA. ROA that shows focusing on the firm strategy on ESG & Safety may be conducive to increase the profit. Finally, firm size has negative weak and significant correlation with ROA which indicates that large size firms may be constrained to improve their profitability.

**Table 2: (Diagnostic Tests)**

Test	Purpose	Test value	Remarks
Chow Test	Fixed Effect Vs Pooled OLS	.000	Fixed Effects Model
Bruesh Pagan Test	Fixed Effect Vs Pooled OLS	.021	Random Effects Model
Hausman Test	Fixed Effect Vs Pooled OLS	.000	Fixed Effects Model
Heteroskedasticity	Unequal Variance	.000	Heteroskedasticity

***Chow Test***

The diagnostic can always be used to select the final model of analysis. Chow test is that type of test which can be used to select the final model between fixed effects and pooled OLS model. H<sub>0</sub>: Pooled OLS model and H<sub>1</sub>: Fixed effect model.

The result in the chow test is .000 which has been found significant. It has been concluded that the significant test value leads to adopt fixed effects model for the interpretaions and estimation of results.

***Bruesh Pagan Test***

The diagnostic is used to select the final model of analysis. Bruesh Pagan test is that type of test which can be used to select the final model between random effects and pooled OLS model. H<sub>0</sub>: Pooled OLS model and H<sub>1</sub>: Random effects model.

The result in the Bruesh Pagan test is .021 which has been found significant. It has been concluded that the significant test value leads to adopt the random effects model for the interpretation and estimation of results.

***Hausman Specification Test***

The diagnostic can always be used to select the final model of analysis. Hausman Specification test is that type of test which can be used to select the final model between the fixed effects and random OLS model. H<sub>0</sub>: Random effects model and H<sub>1</sub>: Fixed effects model.

The result in the Hausman test is .000 which has been found significant. It has been concluded that the significant test value leads to adopt fixed effects model for the interpretation and estimation of results.

***White's Test for Heteroskedasticity***

White's test for heteroskedasticity is that type of test which can be used to estimate the nature of the data as homoskedastic or heteroskedastic. H<sub>0</sub>: Homo, and H<sub>1</sub>: Hetero.

The result in the white's test is .000 which has been found significant. It has been concluded that the data has been found with the issue of heteroskedasticity and the final model should be run by using the *Robust Standard Error*.

**Table Error! No text of specified style in document.:Fixed Effects Model (ROA)**

ROA	Coefficient	SE (R)	T-value	P-value
ESG & S	0.463	0.136	3.404	.000
Size	0.471	0.193	2.441	.000
Age	0.134	0.071	1.887	.193
Leverage	0.289	0.067	4.313	.000
R & D	0.562	0.134	4.194	.000
IT	0.379	0.108	3.509	.000
Years	0.119	0.116	1.025	.346

*R-Square: 0.597, F-value: 14.317, P-value: .000*

Table 4.4 shows the results of Model 1 which was included in this study after the recommendation of the diagnostic tests. This test was used to check the effect of environment, social, governance and safety, firm size, leverage, research & development, IT (Industry Type), and years (firm age) on the firm financial performance. The financial performance in this table has been mentioned by taking the return on assets (ROA). The values in the table have been used to achieve the study objective by using the significant model. The value of R-square in this table is 0.597 which indicates that environment, social, governance and safety, size, age, leverage, research & development, IT and years may cause 59 percent variance explained in the firm financial performance. This shows that the included independent variables significantly explain variance in the dependent variable.

The significance of the model is the most important part of the regression analysis. For this purpose, the study has used anova model of regression by using the f-value. The studies have argued that the standard value of the f-value is 4. It is important for the significant model that the value must be higher than 4 or in lower case; the model will not be statistically significant. The f-value in the table is 14.317 which is more than the benchmark and recommend that the included model has been found significant.

The value of coefficient for the Environment Social Governance & Safety reflects the positive association with the financial performance. This value has shown that Environment Social Governance & Safety has proved positive relationship with financial performance. Further the coefficient value of Environment, Social, Governance & Safety is 0.463 which means that one unit increase in these variables cause 0.463

times variance in the firm financial performance (ROA). In other words, when the Environment Social Governance & Safety is changed then the financial performance will show positive change of .46 units in positive direction. It reflects that when the firms want to increase their financial performance then they should increase their investment on Environment Social Governance & Safety. The t-value for the Environment Social Governance & Safety is 3.404 which is more than 1.96. The standard for the t-value is 1.96. In case of taking alternate hypotheses, the t-value must be more than 1.96 or in other case, alternate hypothesis will be rejected. In case of Environment Social Governance & Safety the value is more than standard value and it is concluded that Environment Social Governance & Safety is having significant effect on the financial performance (ROA).

The value of coefficient for the firm size reflects the positive association with the financial performance. The coefficient value of firm size is 0.471 which shows an increase of one unit in the firm size will cause 0.471 times increase in the financial performance (ROA). In other words, when the firm size is changed then the financial performance will show positive change of 0.471 units in positive direction. It also indicates that the firms want to increase their financial performance then they have increased their investment in their assets as well in order to increase their size in terms of total assets. The t-value for the firm size is 2.441 which is more than 1.96. The standard for the t-value is 0.196. In case of taking alternate hypotheses, the t-value must be more than 1.96 or in other case, alternate hypothesis will be rejected. In case of firm size, the value is more than standard value and it is

concluded that firm size is having significant effect on the financial performance (ROA).

The value of coefficient for the firm age reflects the positive effect on the financial performance. This value shows that that the firm age affects with the firm financial performance. However, this effect is insignificant as indicated by the coefficient value. The t-value for the firm age is 1.887 which is less than 1.96 (standard value). Therefore, the null hypothesis may be accepted to conclude that the firm age is having insignificant effect on the financial performance (ROA).

The value of coefficient for the leverage reflects positive association with the financial performance. This value indicates that leverage has proved positive relationship with financial performance. The coefficient value suggests that one unit increase in the leverage will increase the financial performance (ROA) by 0.289 units. Alternatively, when the leverage is changed then the financial performance will show positive change of 0.289 units in positive direction. In order to improve their financial performance, the firms need to rely more on the debt financing in their capital structure. The t-value for the leverage is 4.313 which is less than the standard value of 1.96 calling for rejecting the null hypothesis to assert that the leverage is having significant effect on the financial performance (ROA).

The value of coefficient for the R&D reflects the positive association with the financial performance. This value depicts that R&D has proved is positively related with the financial performance. The coefficient value illustrates that one unit increase in the R&D expenditures by the firms will cause the financial performance (ROA) increase by 0.562 units. In other words, when the R & D is changed then the financial performance will show positive change of 0.562 units in positive direction. If they firms want to increase their financial performance then they should incur more R&D expenditures to increase their profitability. The t-value for the R&D leverage is 4.194 which is greater than 1.96. Therefore, the null hypothesis may be rejected implying that R&D is having significant effect on the financial performance (ROA).

The value of coefficient for the Industry Type (IT) shows the positive and significant relationship with the firm financial performance. Accordingly, this effect can contribute to increase

the firm financial performance (ROA) by 37 percent. The t-value for the IT is 3.509 which is more than 1.96 which suggest to accept the alternate hypothesis that IT significantly affect the firm financial performance (ROA).

The value of coefficient for the years depicts the insignificant positive effect on the firm financial performance (RO). The t-value is 1.025 which is less than 1.96 calling for acceptance of null hypothesis to conclude that years effect on dependent variable in the regression model is insignificant.

### **Conclusion**

Primarily, a Business Corporation's goal is to maximize its financial gain. However, most firms have not deliberately incorporated social and environmental goals into their company strategy and operations during the last two decades. They embody the core principles of the organization, a sustainable culture that prioritizes and gives equal importance to financial, environmental, and social results. Enhancing the precision of the values and beliefs produced by these strategies also helps to a more enduring culture. Enhanced Analytics Initiatives along with Principles for Responsible Investment are contemporary efforts aimed at encouraging the incorporating ESG factors or variables into the assessment of corporate value and investment decisions. ESG, which stands for Environmental, Social, and Governance, is a well-recognized notion in the industrialized nations.

This study investigates ESG & Safety impact on the firm or corporate financial performance effect of top management commitment as well as organizational strategy on ESG & Safety relationship with the corporate financial performance. In this view, findings of this study may be helpful for practitioners considering how to improve the corporate financial performance. Moreover, the study finds that ESG & Safety affects the firm financial performance. Accordingly, it is suggested that the firm management should devise conducive policies to encourage the adoption of ESG dimensions and provision of a safe working environment in the organizational settings.

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