Environmental, Social and Governance Practices and Capital Market Response: Evidence from Emerging Countries

Muhammad Naeem[1], Hamid Ullah[2], Shahid Jan Kakakhel[3]

Abstract

This study aims to investigate the impact of ESG practices on capital market response of emerging countries in terms of market-adjusted return (MAR), market value added (MVA), and Tobin's Q (TQ). The study has used the data of 1042 firms from 26 emerging countries from 2010 to 2019. The data was collected from Refinitiv ESG (formerly Thomson Reuter Asset4) and DataStream; and used the panel data regression analysis techniques such as fixed effects, random effects, and Feasible Generalized Least Square (FGLS) models. Results showed that pillar-wise, environmental, social and governance scores and aggregate ESG scores have significant and positive impact on capital market response. To the best of author's knowledge, limited studies so far demonstrate the association between ESG practices and capital market response in emerging countries. Therefore, the current study has useful implications for investors, regulators, socially responsible analysts and policymakers of emerging countries, as well as it is also essential for government agencies and other related agencies in emerging countries.

Keywords: *ESG Practices, Capital Market Response, FGLS Models, Emerging Countries.*

1. Introduction

Environmental, social and governance (ESG) is considered as a set of criteria that investors use to search, filter, and consider the socially responsible firms. ESG is best characterized as a framework that describes how the organizations manage their risks and opportunities related to environmental, social and governance issues; and how it helps the stakeholders to understand the organization's commitment towards these issues. The term ESG is most often found in investing; however, other stakeholders, such as employees, customers and suppliers are also interested in ESG issues and they also focused on sustainable organization operations. The ESG activities extended as a long-term initiative due to climate change effects and the COVID-19 pandemic.

1 PhD Scholar Islamia College Peshawar. Email: mnaeemshah90@yahoo.com
2 Assistant Professor Islamia College Peshawar. Email: hamidullah@icp.edu.pk
3 Associate Professor Islamia College Peshawar. Email: shahidjan@icp.edu.pk

The Incorporation of ESG is crucial in risk approaches and it has now seen as an emerging factor for firm financial growth. Therefore, the consideration of global investors towards sustainable investing and ESG issues are increased to high level due to rapid increase in the importance and recognition of ESG issues. Hence, the concept of ESG has now become one of the most critical issue that got a considerable attention from academicians, researchers and policymakers (Devalle, 2017; Almeyda & Darmansya, 2019).

The investors' reactions towards capital market response are imperative process that involves the selection of stock from available various stock markets within a wide range of options. The Traditional Economic theory states that people are rational agents, and their decisions are based on expectations, knowledge, experiences and the advantage taken from available opportunities. Conversely, the behavioral example of financial decision-making describes that how the investors make their investment decisions in the capital markets; and how they perceive the world; are based on the embedded thought patterns, emotional inclination, and psychological biases of different peoples (Jagongo & Mutswenje, 2014; Cohen & Kudryavtsev, 2012). Previously the investors' reactions and investment decisions were based on an ordinary triangle that covers risk, liquidity, and returns; however, the investors today also consider the sustainability and use the phenomenal square, which includes ESG besides liquidity, risk and return (Von Wallis & Klein, 2015). Therefore, the investors' decisions are differ; some investors consider only financial outcomes, while other considers the economic consequences and ESG activities in their investment decisions. The focus of ESG factors in investment decision process is also increased in different academic studies. The consideration of socially responsible investing (SRI) in academic studies has seen little in the past few decades, but clear definitions and investment strategies of SRI have recently become a central part of these studies (Von Wallis & Klein, 2015).

The demand of ESG practices are expected to be greater in emerging countries as compared to mature and developed countries due to deprived social and environmental needs in emerging countries (Baughn, Bodie & McIntosh, 2007; Dobers & Halme, 2009). The literature on ESG is not only scarcer but also controversial in emerging countries (Orsato et al., 2015). Therefore, besides the other studies that benefit investors, a survey on societal concerns of investors is also much more needed to be conducted in emerging countries (Hood, Nofsinger & Varma, 2014). The preferences for ESG criteria should be given individual weightings (Martí-Ballester, 2015). The quantitative methods could establish the individual weightings that help to generalize these dimensions and their impact on investment, capital market response and sustainability (Carolina et al., 2016). East and West have different cultural values, philosophies and institutions (Barkema, Chen, George, Luo & Tsui, 2015); and

hence, the ESG practices are quite different in these regions. Prior studies suggested that the CSR practices and the effects of these practices on firm performance across the countries are based on various cultural and socio-historical backgrounds of the countries (Ortas et al., 2015).

Thus, besides the significant importance of ESG practices and a wide range of studies on ESG and firm financial performance, as well as ESG and investment decisions in developed countries. However, limited studies are so far conducted in emerging countries that explain the relationship between ESG practices and capital market response. As the demands for environmental and social issues are much higher in emerging countries as compared to developed markets; therefore, the need for ESG practices is expected to be greater in emerging countries (Baughn et al., 2007; Dobers & Halme, 2009). Therefore, the primary purpose of the current study is to investigate the association between ESG practices and capital market response in the broader context of emerging countries for the period of 2010 to 2019.

The current study contributes to the existing literature in several ways. Firstly, previous studies mostly investigate the relationship between ESG and firm financial performance in developed countries with inconclusive results (Garay & Font, 2012; Revelli & Viviani, 2015; Bernardi & Stark, 2018). However, the current study examined the association between ESG practices and capital market response in emerging markets as a neglected area of research. Moreover, this study also investigate the effect of each pillar, i.e., environmental, social and governance scores as well as aggregate ESG scores; which were also narrowly considered in previous studies (Aouadi & Marsat, 2018; Fatemi et al., 2017; Baldini et al., 2016; El Ghoul et al., 2011; Nekhili et al., 2017; Aboud & Diab, 2018). Secondly, previous studies were narrowly focused on single industry, region and even a single country; hence, the findings of these studies lack generalizability (Atan, Alam, Said, & Zamri, 2018; Balatbat, Siew, & Carmichael, 2012; Huang, 2021; Ruan, & Liu, 2021). However, the current study has used multi-industries and multi-countries data of emerging markets that could provide more generalizable findings. Thirdly, most of the previous studies on capital market response and ESG were event-based, which has limited generalizability and neglects the effect of firm-specific variables (McWilliams et al., 1999; Capelle-Blancard & Petit, 2019; Mitsuyama & Shimizutani, 2015). However, the current study has used the panel data regression analysis techniques by using the different proxies to measure the capital market response towards ESG practices in emerging countries. Fourth, the current study extended the use of stakeholder theory by considering the capital market as an essential stakeholder that responds to ESG practices. Finally, the study also extended the legitimacy theory by considering the environmental, social and governance forces as important stakeholders that validated the business

operations (Davis, 1973).

The rest of the paper is arranged as follows; section-2 describes the detailed literature about ESG practices and capital market response. Section-3 provide details of methodology. Section-4 highlights the detailed analysis and results. Section-5 describes the conclusions and future recommendations.

2. Literature Review

2.1 Theoretical Background

Based on the stakeholder theory of Freeman (1984), the companies should consider the interests of all the stakeholders who can substantially affect or be affected by the firm. Different authors proposed several extensions of stakeholder theory, i.e., Agle, Donaldson, Freeman, Jensen, Mitchell, and Wood. Remarkably, the instrumental stakeholder theory developed by Jones (1995) suggested that CSR efforts are seen as potential instruments to obtain the stakeholder support or necessary resources. Based on the theoretical considerations of previous studies (Jansson & Biel, 2011; Crane et al., 2015; Rivoli, 1995), the current study postulates that two factors should play essential role in the relationship between ESG practices and capital market response. First, ESG practices have an impact on potential investors by fulfilling the interest of non-shareholding stakeholders; as it increases the costs of the companies which ultimately affecting the returns of the shareholders (Stevens et al., 2015). Second, as sustainability (ESG) affects the wealth maximization of the shareholders in the long run; the perceived sustainability of fulfilling the stakeholders' interest in firm's future success should also influence the investor reactions (Jansson & Biel, 2011; Wäneryd, 2001). It is also essential to know the investors/potential investors' responses to ESG issues in the capital market are based on their knowledge about the firm's ESG activities. Potential investors' decision regarding how much to invest in the firm are based on their understanding about the firm ESG activities (Clark-Murphy & Soutar, 2005; Schijven & Hitt, 2012), as the organization future market capitalization is based on the reactions of these investors.

Thus, the stakeholder theory proposed that ESG practices generate two concepts; "the moral capital" and "the relational wealth" (Godfrey, 2005), which is the result of the relationship with all the stakeholders, it also leads to increase the firm performance. Thus, this perspective implies that ESG activities are positively and significantly impact the firm performance, which motivates the investors to invest in these firms with high market returns and value. Hence, being able to anticipate

investors' responses, the current study used the ESG factors to find out that how the investors react towards these issues while making their investment decisions in the capital markets of emerging countries.

2.2 Empirical Review

Numerous studies analyzed the association between ESG and firm performance by using different performance measures (KPMG, 2015; Kitzmueller, 2008; Orlitzky et al., 2003; Wu, 2006). The study of Van and Gossling (2008) categorized these measures into two main groups: market-based measures, which include stock performance, market return, share price appreciation, price per share, and market-to-book value. The other category is accounting-based measures, such as ROE, ROA, and ROCE. Several studies used these measures to investigate the association between ESG and firm performance and found a positive and significant relationship between ESG and firm performance (Fisher-Vanden & Thorburn, 2011; Brammer & Pavelin, 2006). Previous studies such as Gibson and Krüger (2018) concluded that the casual interpretation of sustainability (ESG) by measuring investors' performance based on their environmental and social investments in the investors' risk-adjusted-performance. Most of the previous studies, such as Armstrong, Barth, Jagolinzer and Riedl (2010); and Palmrose, Richardson and Scholz (2004), used the firm-level monthly market-adjusted return to find out the association between ESG and firm market returns. Moreover, Bharadwaj, Bharadwaj and Konsynski (1999); and Konar and Cohen (2001) suggested that there is a lack in the ability of accounting-based measures to estimate the future profit potential of such practices. Therefore, to overcome these limitations and to get the most robust results about the firm performance, most of the previous studies considered market value added (MVA) as a critical variable to measure the firm value (Singh, Sethuraman & Lam 2017; Charlo, Moya & Muñoz 2017; Jiang, Belohlav & Young 2007; Surroca, Tribó & Waddock 2010). The positive MVA would increase and add value to the firm; on the other hand, the negative MVA decreases the firm value.

Previous studies also used Tobin's Q as firm value to determine the association between ESG practices and corporate financial performance. Such as Lucas and Noordewier (2016) documented that firm performance is increased by doing environmental activities, which also increases the firm value. Similarly, Dumitrescu et al. (2020) also showed a positive and significant relationship between social pillar and firm value (TQ). The study of Giannarakis et al. (2020) highlighted that governance disclosures could reduce the agency cost of the firms, which encourages sustainability and increases the firm value. Moreover, the studies of Bebchuk et al. (2010); Gompers, Ishii and Metrick (2003); Lemmon and Lins (2003); and Siagian et al. (2013) found that good governance increased the confidence of investors, which ultimately

enhanced the firm value.

Most of the previous studies on ESG and firm performance were focused on developed countries, and the findings of these studies are mostly relevant only to developed countries' environments (Baraibar-Diez et al., 2019; Brogi & Lagasio, 2019; Miralles-Quirós et al., 2019; Lokuwaduge & Heenetigala, 2017). However, the studies in emerging markets are dearth and need to be addressed in these markets as the emerging markets are considered as the critical accelerator of future global economic growth (Shakil, Mahmood, Tasnia & Munim, 2019). According to Zhao et al. (2018) to better understand the emerging countries' culturally specific and politically volatile nature; the investors now consider the ESG activities in these countries (Aboud & Diab, 2019). Yoon et al. (2018) used the data of Korean firms and found a significant and positive association between CSR practices and firm stock market performance. Moreover, Pollard et al. (2018) considered the ESG dimensions and concluded that investment strategies in emerging countries experience higher performance in terms of ESG.

Similarly, Shakil et al. (2019) used the data of banks and found a positive relationship between environmental and social practices and financial performance in emerging markets. Garcia et al. (2017) showed that sensitive industries in large emerging markets have a positive relationship between proactive environmental practices and profitability. Furthermore, Amor-Esteban et al. (2019) concluded that CSR practices are lower in Southeast Asian firms as compared to Europe and USA; thus, the CSR practices should be developed further in emerging countries. More recently; Naeem, Ullah and Jan (2021) used the data of 1042 firms in 27 emerging countries and found a significant and positive association between ESG practices and firm performance. Ruan and Liu (2021) used the data of Chinese companies and found a significant and negative association between ESG activities and firm performance.

Various theoretical and empirical studies suggested a positive relationship between ESG practices and firm financial performance; companies in emerging countries actively address ESG-related issues. The current study also expects a positive association between ESG practices and capital market response in emerging countries like previous studies. Thus, based on the above theoretical arguments and the empirical results of previous studies, the current study has concluded the following research hypotheses:

H_1: There is a significant and positive relationship between aggregate ESG practices and capital market response in emerging countries.

H_2: There is a significant and positive relationship between Environmental,

Social, and Governance practices and capital market response in emerging countries.

3. Methodology

3.1. Sample and Data Collection

The current study has used the sample of 27 emerging countries (MSCI, 2019), which includes initially 1966 firms. Afterward, Kuwait has been dropped from the initial sample because of incomplete and missing data. Furthermore, the firms with missing and incomplete data were also removed and the final sample of the study has been reduced to 26 emerging countries with 1042 firms. The purposive sampling technique was used to select the firms that are listed on Refinitiv Eikon database (Refinitiv, 2019). The ESG data was *retrieved from* Refinitiv ESG *index* (Cheng et al., 2014; Garcia et al., 2017); while, *the data of all the proxies of capital market response and control variables were retrieved from* DataStream which are also available on Refinitiv Eikon.

3.2. Estimation Techniques

This current study used the panel data regression analysis technique to determine the relationship between ESG practices and capital market response in emerging countries. Therefore, the following two models were used for regression analysis;

$$CMR_{it} = \beta_0 + \beta_1 ESG_{it} + \beta_2 SIZE_{it} + \beta_3 MTB_{it} + \beta_4 DY_{it} + \beta_5 LEV_{it} + \beta_6 RET_{it} + \beta_7 SOL_{it} + \sum \beta_j FIRM_{it} + \sum \beta_K INDUSTRY_{it} + \sum \beta_L COUNTRY_{it} + \sum \beta_M YEAR_{it} + \varepsilon_{it}$$

$$CMR_{it} = \beta_0 + \beta_1 ENV_{it} + \beta_2 SOC_{it} + \beta_3 GOV_{it} + \beta_4 SIZE_{it} + \beta_5 MTB_{it} + \beta_6 DY_{it} + \beta_7 LEV_{it} + \beta_8 RET_{it} + \beta_9 SOL_{it} + \sum \beta_j FIRM_{it} + \sum \beta_K INDUSTRY_{it} + \sum \beta_L COUNTRY_{it} + \sum \beta_M YEAR_{it} + \varepsilon_{it}$$

Where; CMR shows Capital Market Response (measured by different proxies); ESG shows Aggregate ESG Score; ENV shows Environmental pillar; SOC shows Social pillar; GOV shows Governance pillar; SIZE represents Firm Size; MTB shows Market to Book Ratio; DY shows Dividend Yield; LEV shows Leverage Ratio; RET shows Firm Retention; SOL shows Firm Solvency; Firm, Industry, Country and Year were used as Dummy variables; i denotes firms (i.e. 1042), t represents time period (i.e. 2010 to 2019), and ε shows the error term.

3.3. Variable Measures

3.3.1. Dependent Variable: Capital Market Response

The current study has used different proxies to measure the capital market response. Generally, the investors' reactions in capital markets are based on firm financial

statements. These statements analyze the firm financial position, profitability, and liquidity. Besides this, the investors also evaluate the firm value and growth while making their investment decisions in the capital markets. Therefore, assessing the firm value and growth is also much more critical to attracting the potential investors and retaining the existing ones. Moreover, the financial statement analyses by using the ratios are not too much enough for capital market response. Therefore, the current study has used different proxies such as market-adjusted return (MAR), market value added (MVA) and Tobin's Q (TQ) to measure the capital market response. The reasons for using different proxies are to get more robust results and also to provide more generalizable findings in emerging countries. Moreover, these techniques are also considered as the most valuable measures to evaluate the firm's value, firm growth and firm profitability accurately; which are also helpful for existing and potential investors' reactions in the capital markets.

The definitions of different proxies used in this study are described as follows. Firstly, the difference between an asset's return and a market index's return is known as market-adjusted return (Armstrong et al., 2010; Palmrose et al., 2004). Similarly, market value added refers to the difference between the firm's current market value and the capital contribution by investors on the balance sheet (Simerly & Li, 2000; Cochran & Wood, 1984). Lastly, the firm market value and physical assets ratio is considered as Tobin's Q (Bhagat & Bolton, 2008; Jackling & Johl, 2009; Kim et al., 2013).

3.3.2. Independent Variable: ESG

The current study has used the ESG as an independent variable to determine its impact on capital market response in emerging countries. Despite considering the aggregate ESG score, this study also used environmental, social and governance pillar-wise; as the mixing of these three pillars might have confounding effects (Galema et al., 2008). The data of ESG was retrieved from Refinitiv Eikon ESG index (formerly Thomson Reuters Asset4). Refinitiv Eikon is a highly recognized database in the industry worldwide, and it has more than 600 different ESG metrics, which cover more than 85% of the global market cap (Refinitiv, 2021). Refinitiv Eikon provides the ESG information in systematic, objective, transparent, comparable and auditable form; which is comprehensively used to assess the corporate performance (Cheng, Ioannou & Serafeim, 2014). More than 150 content research analysts of Refinitiv trained to collect the ESG data across the globe; these analysts used the informations from firm websites, firm CSR reports, firm stock exchange filings, annual reports of the firms, NGO's websites, and other news sources; and further put these information into Refinitiv ESG database (Refinitiv, 2021). Afterward, these informations are further divided into ten categories (i.e. resource use, workforce, emission, innovation,

community, human rights, product responsibilities, shareholders, management, and CSR strategy) that reformulate the three pillar-wise scores; and finally the aggregate ESG score, which reflects the company overall ESG performance, effectiveness, and commitment based on publicly reported information (Refinitiv, 2021). Afterward, these three pillar-wise and aggregate ESG scores are ranked among the companies and obtained either a graded score of D- to A+ and a numerical score from 0 to 100 (Refinitiv, 2021).

3.3.3. Control Variables

Similar like previous studies (i.e. Oikonomou et al., 2012, Ioannou & Serafeim, 2012, Salama et al., 2011, El Ghoul et al., 2011, Benlemlih & Girerd-Potin, 2017); the current study also used different control variables, i.e., leverage (LEV), dividend yield (DY), market to book ratio (MTB), firm size (SIZE), firm retention (RET) and firm solvency (SOL) that affect the ESG, capital market response and firm performance.

4. Results and Discussions

This section includes results and discussions on various statistical models and hypotheses of the study that are empirically tested.

4.1. Summary Statistics

The summary statistics represent the total number of observations, minimum, maximum, mean, and standard deviation of all the variables. The results of summary statistics are given in Table 1. Results showed that aggregate ESG (LESG) mean value is 1.616, with standard deviation of 0.224. The minimum and maximum values of LESG are 0.276 and 2.00, respectively. Pillar-wise, environmental (LENV), social (LSOC), and governance (LGOV) mean values are 1.513, 1.578, and 1.661, respectively. The standard deviations of ENV, SOC, and GOV pillars are 0.386, 0.339, and 0.243, respectively. Similarly, the minimum values of ENV, SOC, and GOV pillar are 1.00, 0.045, and 0.09, with maximum values of 1.993, 1.989, and 1.983, respectively.

Table 1: Summary Statistics

Variables	Obs	Mean	Std. Dev	Minimum	Maximum
LESG	5599	1.618	0.223	0.276	2.000
LENV	5599	1.516	0.380	0.000	1.993
LSOC	5599	1.580	0.338	0.045	1.989
LGOV	5599	1.663	0.242	0.090	1.993
MAR	6550	0.032	0.028	-0.184	0.200

LMVA	6550	19.354	2.435	10.363	27.034
TQ	6280	1.781	1.615	0.053	23.268
LEV	5599	0.289	0.151	0.005	0.742
DY	5599	2.837	2.449	0.000	12.00
MTB	5599	1.916	2.257	0.120	14.233
SIZE	5599	8.225	1.128	6.108	10.952
RET	5599	1.007	1.240	0.000	6.091
SOL	5599	0.458	0.185	0.079	0.889

Source: Author's Analysis

Notes: This table shows the summary statistics of all the variables. It shows the number of observations, mean, standard deviation, and minimum and maximum values of the variables used as a sample of 26 emerging countries from 2010-2019.

The dependent variable, MAR, mean value is 0.032, and its standard deviation is 0.028. The minimum value of MAR is -0.184 and its maximum value is 0.200. Furthermore, the mean value of MVA is 19.354, with standard deviation of 2.435. The minimum value of MVA is 10.363, and the maximum value of MVA is 10.363. Finally, the mean value of TQ is 1.781, with standard deviation of 1.165. The minimum and maximum values of TQ are 0.053 and 23.268, respectively. Besides this, Table 2 also showed the descriptive statistics of all the control variables.

4.2. Correlation Matrix

The Pearson correlation matrix was used to test the variables' correlation. Moreover, the correlation matrix was also used to check the multicollinearity among the variables. The correlation values exceed from 0.7 to 0.8 indicates the presence of multicollinearity between the two variables (Djurfeldt, 2009). However, Field (2009) suggested that the correlation value exceeding 0.9 states the multicollinearity problem.

The correlation values of all the variables are given in Table 2. The matrix showed strong correlation between all the three pillars and aggregate ESG, i.e., environmental pillar (0.795), social pillar (0.860), and governance pillar (0.670). However, this is not surprising since the aggregate ESG score is calculated by using the scores of environmental, social and governance pillars. Since in this study, the ESG and its three pillars have not been used in same regression analysis; therefore, this is not considered as a multicollinearity problem. Moreover, the values of these variables are still below the threshold value (i.e. 0.90). The correlation values of all the other variables are also relatively low, indicating no multicollinearity among these variables.

Table 2: Pearson Correlation Matrix

Variables	TQ	LMVA	MAR	LESG	LGOV	LSOC	LENV	RET	MTB	LQ	LEV	SIZE	DY	SOL
TQ	1.000													
LMVA	0.109	1.000												
MAR	0.024	0.015	1.000											
LESG	0.021	0.177	0.026	1.000										
LGOV	0.025	0.064	0.009	0.670	1.000									
LSOC	0.012	0.200	0.034	0.860	0.422	1.000								
LENV	0.044	0.161	0.020	0.795	0.355	0.643	1.000							
RET	0.063	0.015	-0.004	-0.011	-0.010	-0.010	-0.013	1.000						
MTB	0.044	-0.036	-0.022	0.035	0.023	0.034	0.014	-0.002	1.000					
LIQ	-0.004	-0.156	-0.006	-0.067	-0.026	-0.054	-0.072	0.004	-0.019	1.000				
LEV	-0.139	0.204	-0.005	0.119	0.067	0.131	0.105	-0.025	0.025	-0.078	1.000			
SIZE	-0.184	0.850	0.006	0.213	0.084	0.214	0.233	-0.006	-0.072	-0.150	0.347	1.000		
DY	-0.075	-0.197	-0.013	0.028	0.043	-0.010	0.037	0.002	0.024	0.098	-0.165	-0.142	1.000	
SOL	-0.024	-0.114	-0.014	0.002	0.026	-0.009	0.016	-0.004	-0.005	0.149	-0.058	-0.101	0.056	1.000

Source: Author's Analysis

Notes: This table shows Pearson's Correlation Matrix. The matrix shows the correlation between dependent, independent and controlled variables. The correlation matrix is also used to detect the presence of multicollinearity among the variables. The variable which has a value of more than 0.90 indicates the presence of multicollinearity.

4.3. Tests for Multicollinearity

The correlation matrix and Variance Inflation Factor (VIF) are two methods used to test the presence of multicollinearity between the variables (Hair et al., 2010). Liao and Valliant (2012) state that the VIF test is used to measure that how inflated the variance of the slope of independent variables (non-orthogonally) above the expected variance that should be un-correlated. Besides the correlation matrix, the current study also used the VIF test to detect the presence of multicollinearity. Table 3 presents the results of VIF test of all the models used in this study. Results exhibited that the VIF value of all the variables are less than five which are below the threshold value of VIF (Akinwande et al., 2015). Therefore, the VIF test also confirmed that there is no multicollinearity exists between the variables.

Table 3: VIF Test for Multicollinearity

Environmental Pillar		Social Pillar		Governance Pillar		Aggregate ESG	
Variable	VIF	Variable	VIF	Variable	VIF	Variable	VIF
LENV	1.039	LSOC	1.029	LGOV	1.020	LESG	1.030
SIZE	1.064	SIZE	1.051	SIZE	1.035	SIZE	1.053
LEV	1.075	LEV	1.075	LEV	1.076	LEV	1.075
DY	1.026	DY	1.028	DY	1.006	DY	1.029
MTB	1.786	MTB	1.791	MTB	1.780	MTB	1.790
RET	3.416	RET	3.416	RET	3.415	RET	3.416
SOL	2.276	SOL	2.280	SOL	2.277	SOL	2.279
Mean VIF	2.292	Mean VIF	2.290	Mean VIF	2.282	Mean VIF	2.290

Source: Author's Computation

Notes: This table shows the Varian Inflation Test. It is used to identify the presence of multicol-linearity in predictor variables. A value of more than five indicates the presence of multicollinearity.

4.4. Heteroscedasticity and Autocorrelation Tests

The current study has used the Breusch Pagan/Cook Weisberg test to detect the presence of heteroscedasticity in panel data. Heteroscedasticity leads to biased standard error and also misleading the regression results. Table 4 presents the results of heteroscedasticity test. Results showed that the p-values of all the independent variables are significant; thus, the null hypotheses of Breusch Pagan/Cook Weisberg test are rejected and confirm the presence of heteroscedasticity in all the proxies of dependent variable.

Table 4: Heteroscedasticity Test for all the Proxies of Capital Market Response

Model with	MAR		MVA		TQ	
Inde-pendent Variables	Chi-square Statistics	P-Values	Chi-square Statistics	P-Values	Chi-square Statistics	P-Values
LENV	1213.59	0.0000	1246.52	0.0000	74723.40	0.0000
LSOC	1145.31	0.0000	1334.16	0.0000	74320.72	0.0000
LGOV	1015.35	0.0000	1303.54	0.0000	74466.41	0.0000
LESG	1230.05	0.0000	1303.66	0.0000	74282.46	0.0000

Source: Author's Analysis

Notes: This table shows the Breusch Pagan/Cook Weisberg test for heteroscedasticity. The null hypothesis of the Breusch Pagan/Cook Weisberg test suggested homoscedasticity in data.

The Wooldridge test was used to detect the presence of autocorrelation in all the proxies of dependent variable. The problem of autocorrelation leads to biased Ordinary Least Square (OLS) and increases the standard errors (Dougherty, 2007). The omission of critical variable from regression model is the main reason of auto-correlation. Table 5 shows the results of autocorrelation test. Results showed that p-values of all the independent variables are insignificant; thus, the null hypotheses of Wooldridge test are accepted, and hence, there is no autocorrelation problem in all the proxies of dependent variable.

Table 5: Autocorrelation Test for all the Proxies of Capital Market Response

Model with	MVA		MAR		TQ	
Inde-pendent Variables	F-Statistics	P-Values	F-Statistics	P-Values	F-Statistics	P-Values
LENV	0.356	0.3341	0.169	0.6912	0.125	0.7322
LSOC	0.546	0.4450	0.354	0.3965	0.123	0.7342
LGOV	0.264	0.2924	0.196	0.6814	0.129	0.7278
LESG	0.352	0.3839	0.183	0.6562	0.126	0.7313

Source: Author's Analysis

Notes: This table shows the Wooldridge Test of autocorrelation. The null hypothesis of the Wool-dridge Test suggested that there is no first-order autocorrelation.

4.5. Tests for Endogeneity

The condition in which the explanatory variables correlate with error terms or even two error terms correlate with each other is known as endogeneity in regression

models. The endogeneity problem causes inconsistent estimates, potentially leading to incorrect theoretical interpretations, incorrect inferences, misleading conclusions and the researcher might also get the incorrect coefficient signs (Ketokivi & McIntosh, 2017). Previous research showed that about 90% of the studies have not adequately addressed the endogeneity problem (Antonakis et al., 2010, Hamilton & Nickerson, 2003). Ketokivi and McIntosh (2017) suggested that there is no direct way to test the presence of endogeneity statistically because exogenous variables are probably never exogenous precisely, and the error term in endogeneity bias is unobservable. Therefore, it is almost impossible to completely solve the problem of endogeneity by using the statistical tests/methods (Roberts & Whited, 2012). Therefore, the dilemmas of endogeneity require better indirect choices instead of solutions (Ketokivi & McIntosh, 2017). There are different reasons that lead to endogeneity problem in regression models; such as measurement errors, common method variance, omitted variables and reverse causality/simultaneity. As there are no direct endogeneity tests, the precautionary measures and choices of indirect tests can help to get relevant conclusions and insights (Ketokivi & McIntosh, 2017).

The current study also used the indirect test/method to detect the presence of endogeneity. The Granger Causality test was used as a pre-test to determine that whether there is any reverse causality (simultaneity) exists between the independent and dependent variables. The results of Granger Causality test are given in Table 6. Results showed that there is no reverse causality exists between MAR and ESG; as the null hypothesis of the Wald Test has not been rejected. Hence, the relationship between ESG and MAR is unidirectional. Similarly, the study also found no evidence of the existence of reverse causality between MVA and ESG. Likewise, results also showed no reverse causality between TQ and ESG. Therefore, based on these results, there is no reverse causality exists between the independent and dependent variables and all of these relationships are unidirectional; therefore, there is no problem of endogeneity in panel data regression models.

Table 6: Granger Causality Test for Endogeneity

Null Hypothesis	Observations	F-Statistic	Probability
MAR does not Granger Cause ESG	7798	1.06214	0.345
ESG does not Granger Cause MAR	7798	7.54518	0.000**
LMVA does not Granger Cause ESG	7798	1.84467	0.304
ESG does not Granger Cause LMVA	7798	36.4426	0.000**

TQ does not Granger Cause ESG	7798	0.89480	0.408
ESG does not Granger Cause TQ	7798	5.29210	0.001**

Source: Author's Analysis

Notes: This table shows the Granger Causality Test used as a pre-test to determine the reverse causality (endogeneity) between the independent and dependent variables. The null hypothesis of the test suggested that there is no problem with reverse causality. The ***, **, and *are 1%, 5%, and 10% significance levels used to reject the null hypothesis.

4.6. Hausman (1978) Specification Test

To select between the fixed effects models and random effects models for panel data regression analysis, the Hausman (1978) test is used (Greene, 2007). The significant p-values of Hausman's test suggest to use the fixed effects models; otherwise, random effects models are appropriate for panel data regression analysis (Klarner, 2010). Table 7 highlights the results of Hausman test of all the models. Results showed that fixed effects models are appropriate both for MAR and MVA; because null-hypothesis of Hausman's test is rejected as the p-values of all the independent variables are significant. However, the insignificant p-values of independent variables indicate to use the random effects models for panel data regression analysis of TQ.

Table 7: Hausman (1978) Specification Tests

Models	MVA		MAR		TQ	
	Chi-Square	P-Value	Chi-Square	P-Value	Chi-Square	P-Value
LENV	345.64	0.000	27.51	0.000	10.067	0.185
LSOC	388.50	0.000	28.37	0.000	5.175	0.639
LGOV	434.51	0.000	27.86	0.000	5.29	0.625
LESG	415.80	0.000	29.63	0.000	7.79	0.351

Source: Author's Analysis

Notes: This table shows the results of Hausman's (1978) specification test for panel data regression analysis for all the proxies of capital market response. The significant p-values proposed to use the fixed effects models; otherwise, random-effects models should be used.

4.7. Regression Results of ESG and Capital Market Response

The regression results of ESG practices and capital market response are given in this section. The current study has used different proxies to measure the capital market response towards ESG practices in emerging countries. Therefore, separate regression models were used for all the proxies to achieve the main objectives of the

study and also to get the most robust results.

4.7.1. Regression Results of ESG and Market Adjusted Return

The current study first of all used the market-adjusted return (MAR) as a proxy of capital market response to determine the relationship between ESG practices and capital market response in emerging countries. Based on the results of Hausman (1978) test, the fixed effects models were used to establish the relationship between ESG practices and MAR. Table 8 shows the results of fixed effects models for MAR. Results documented a significant and positive association between environmental pillar and MAR; and hence, showed strong and positive correlation between environmental ratings and financial returns (Godfrey, 2005). The results of current study are similar to the findings of Man (2017), Gibson and Krüger (2018), Armstrong et al. (2010) and Palmrose, Richardson and Scholz (2004).

Similarly, the social pillar has also showed a significant and positive relationship with MAR. Moreover, results showed that the governance pillar has positive but insignificant impact on MAR. Thus, the current study does not provide evidence of significant relationship between governance pillar and MAR; however, linear relationship exists between the governance pillar and MAR. Results also showed significant and positive relationship between aggregate ESG and MAR. The companies which are doing ESG practices and disclosing voluntary ESG information are attracting more investors; and thus, the ethical investors are more willing to purchase the shares of these companies (Anderson & Frankle, 1980). These results are consistent with the finding of Man (2017). The findings of this study support the assumptions made by stakeholder theory (Freeman, 2010) which predicted a positive association between ESG practices and firm high market returns. Based on stakeholder theory, the current study meets the needs of different stakeholders, increasing the firm return (i.e. MAR) and also increasing the investor's positive response in the capital market. The control variables showed that firm size and solvency are significantly and positively related to MAR; however, leverage, dividend yield, market to book, and retention are insignificant but positive association with MAR.

Table 8: Fixed Effects and FGLS Regressions for MAR

Variable	Fixed Effects Models				FGLS Models			
	Model-1	Model-2	Model-3	Model-4	Model-1	Model-2	Model-3	Model-4
LENV	.003*				1.317***			
	(.002)				(.069)			

LSOC		.013***				3.028***		
		(.005)				(.067)		
LGOV			.006				2.532***	
			(.005)				(.094)	
LESG				.016**				3.682***
				(.007)				(.096)
LEV	.005	-.002	.005	.007	-1.318***	-1.236***	-1.26***	-.89***
	(.007)	(.003)	(.007)	(.007)	(.113)	(.108)	(.081)	(.077)
DY	0.05	0.03	0.05	0.04	-.241***	-.199***	-.122***	-.176***
	(.001)	(0)	(.001)	(.001)	(.014)	(.012)	(.01)	(.013)
MTB	.008	0.9	.008	.009	.125***	.128***	.137***	.129***
	(.001)	(0)	(.001)	(.001)	(.01)	(.01)	(.01)	(.01)
SIZE	.019***	0.003*	.017**	.025***	-1.268***	-1.147***	-1.404***	-1.583***
	(.007)	(.001)	(.007)	(.006)	(.033)	(.033)	(.026)	(.028)
RET	0.87	0.98	0.87	0.78	.304***	.45***	.408***	.344***
	(.000)	(.000)	(.000)	(.000)	(.063)	(.059)	(.061)	(.061)
SOL	0.44***	0.34***	0.43***	0.45***	0.87	0.94	0.98	0.87
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
_cons	-.215***	-.037***	-.199***	-.255***	21.873***	25.357***	22.019***	22.204***
	(.052)	(.006)	(.053)	(.05)	(.301)	(.255)	(.249)	(.300)
FD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ID	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
YD	No	No	No	No	No	No	No	No
Obs	6657	6657	6657	6657	6657	6657	6657	6657

Source: Author's Analysis

Notes: This table shows the regression results obtained by using the Fixed Effects and FGLS Models to determine the relationship between ESG and MAR in 26 emerging countries from 2010 to 2019. The ENV, SOC, GOV, and ESG were analyzed separately. The last rows presented the Firm, Industry, Country, and Year dummies. The values shown in the tables are co-efficient, and the values in parenthesis are Standard errors. Similarly, ***, **, and * represent the significance level at 1%, 5% and 10% respectively.

The Breusch Pagan/Cook Weisberg test confirmed the presence of heteroscedasticity in data. If there is a problem of heteroscedasticity in data, then the Feasible Generalized Least Square model (FGLS) is considered as the most appropriate model for panel data regression analysis. Therefore, to deal with the problem of heterosce-

dasticity and also to get the more robust results, the current study also used the FGLS models. Besides the results of fixed effects models; Table 8 also presents the results of FGLS models.

Results showed a significant and positive relationship between environmental pillar and MAR. Moreover, the association between social pillar and MAR is also significant and positive. Likewise, results also showed a significant and positive association between governance pillar and MAR. Due to heteroscedasticity problem the results of governance pillar were changed from insignificant positive to significant positive in FGLS models. Finally, results also concluded a significant and positive association between aggregate ESG score and MAR.

The results of FGLS models for control variables are quite different from the results of fixed effects models; this is also because of heteroscedasticity problem. Results of leverage are changed from insignificant negative to significant negative in FGLS models. Similarly, the results of dividend yield have also changed from insignificant positive to significant negative. Results also of market to book and firm retention are also changed from insignificant to significant positive in FGLS models. The results of solvency are also changed and became insignificant negative, while this variable has significant and positive results in fixed effects models. Only firm size showed the same results both in FGLS and fixed effects models.

4.7.2. Regression Results of ESG and Market Value Added

The regression results of the second proxy of capital market response, e.g., market value added (MVA) are given in this section. Similar like MAR, the model specification test concluded that the fixed effects model is appropriate for panel data regression analysis of ESG and MVA. The results of fixed effects models are given in Table 9. According to fixed effects results, the environmental pillar has significant and positive impact on MVA. Therefore, it is concluded that the capital market response is positive to firms which are considering environmental issues in their major strategies and policies as it increases the firm MVA.

Similarly, results also showed the significant and positive association between social pillar and MVA. Hence, the firms performing the social activities would have more market value as compared to other firms in capital markets; it would also attract more potential investors which respond positively to these firms. Results also highlighted the significant and positive association between governance pillar and MVA. Consequently, the good governance practicing firms would have positive market response. These firms have more market value and better financial performance in the capital markets, which attracts more investors. Finally, results showed the significant

and positive relationship between aggregate ESG scores and MVA. Thus, firms that are doing more ESG practices are better as compared to those firms which are not using ESG practices. The results of this study are consistent with previous studies of Comincioli, Poddi and Vergalli (2012); and Cristian, Nicola, Laura and Sergio (2017). The regression results of control variables showed that leverage and dividend yield have significant and negative relationship with MVA. Conversely, market to book, firm size, firm retention and firm solvency have significant and positive relationship with MVA.

Table 9: Fixed Effects and FGLS Regressions for MVA

Variable	Fixed Effects Models				FGLS Models			
	Model-1	Model-2	Model-3	Model-4	Model-1	Model-2	Model-3	Model-4
LENV	.043***				.07***			
	(.008)				(.003)			
LSOC		.029***				.109***		
		(.011)				(.006)		
LGOV			.044***				.071***	
			(.014)				(.008)	
LESG				.064***				.029***
				(0.01)				(.008)
LEV	-.428***	-.426***	-.428***	-.425***	.073***	-.977***	-.941***	-.933***
	(.021)	(.021)	(.021)	(.021)	(.003)	(.01)	(.011)	(.011)
DY	-.017***	-.017***	-.017***	-.017***	-.009***	-.084***	-.084***	-.084***
	(.001)	(.001)	(.001)	(.001)	(0)	(.001)	(.001)	(.001)
MTB	0.4***	0.4***	0.9***	0.7***	.001***	.001***	.001***	.001***
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
SIZE	.928***	.908***	.886***	.886***	.096***	1.915***	1.91***	1.91***
	(.017)	(.017)	(.016)	(.017)	(.001)	(.003)	(.003)	(.003)
RET	.007***	.007***	.007***	.007***	.001***	.022***	.019***	.019***
	(.002)	(.002)	(.002)	(.002)	(0)	(.004)	(.004)	(.004)
SOL	0.7**	0.6**	0.6***	0.5***	.000	001**	001**	001**
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
_cons	11.5***	11.1***	12.3***	12.7***	.64***	3.688***	3.69***	3.74***
	(.14)	(.137)	(.132)	(.135)	(.006)	(.025)	(.026)	(.025)
FD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

ID	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
YD	No	No	No	No	No	No	No	No
Obs	6832	6832	6832	6832	6832	6832	6832	6832

Source: Author's Analysis

Notes: This table shows the regression results obtained by using the Fixed Effects and FGLS Models to determine the relationship between ESG and MVA in 26 emerging countries from 2010 to 2019. The ENV, SOC, GOV, and ESG were analyzed separately. The last rows presented the Firm, Industry, Country, and Year dummies. The values shown in the tables are co-efficient, and the values in parenthesis are Standard errors. Similarly, ***, **, and * represent the significance level at 1%, 5% and 10%, respectively.

Due to the problem of heteroscedasticity in data; the FGLS models were also used for market value added (MVA). Table 9 highlights the results of FGLS models. Results showed that the environmental pillar has significant and positive impact on MVA. The social pillar documented the significant and positive association with MVA. Similarly, the association between governance pillar and MVA is also significant and positive. Finally, the results showed the significant and positive relationship between aggregate ESG score and MVA. The results of control variables are quite similar to fixed effects models used for MVA.

4.7.3. Regression Results of ESG and Tobin's Q

The current study has also used Tobin's Q (TQ) as a third proxy to measure the relationship between ESG practices and capital market response. The Hausman (1978) test confirms to use the random effects models for panel data regression analysis of ESG and TQ. Table 10 presents the results of random effects models. Results showed that the environmental pillar has significant and positive impact on TQ. Thus, it is concluded that the capital market response is positive towards those firms which are considering the environmental issues in their major strategies and policies; as it increases the firm value. Jo and Harjoto (2011) and Carter et al. (2000) also found the same results.

Similarly, social pillar also exhibited the statistically significant and positive relationship with TQ. Hence, it is concluded that the capital market responds positively to firms using social practices in their strategies. These results are consistent with Margolis and Walsh (2003). Furthermore, results showed that the governance pillar has also significant and positive impact on TQ. Thus, firms that are good in governance practices have positive market responses as these firms have more market value and better performance in the capital market, which attracts more investors. The results

are consistent to Ammann et al. (2011); Black et al. (2006), Drobetz et al. (2004), Cheung et al. (2014); Krafft, et al. (2014), Gompers et al. (2003) and Wellalage (2012).

Finally, results also showed the significant and positive association between aggregate ESG score and TQ. Thus, the companies that are using and disclosing the ESG informations are better in performance as compared to those which are not using these information. These results support the previous results found by Aouadi and Marsat (2018), Aybars et al. (2019), Balasubramanian (2019), Garcia et al. (2019), and Fatemi et al. (2018) and Nekhili et al. (2021). Results of control variables showed that leverage, dividend yield, firm size, firm retention and firm solvency have significant and negative impact on TQ. Conversely, results indicated that market to book has significant and positive impact on TQ.

Table 10: Random Effects and FGLS Regressions for Tobin's Q

Vari-able	Random Effects Models				FGLS Models			
	Model-1	Model-2	Model-3	Model-4	Model-1	Model-2	Model-3	Model-4
LENV	.050**				.025**			
	(.024)				(.023)			
LSOC		.124***				.125***		
		(.027)				(.027)		
LGOV			.101***				.083**	
			(.038)				(.036)	
LESG				.146***				.134***
				(.042)				(.04)
LEV	-.876***	-.879***	-.884***	-.881***	-.823***	-.82***	-.827***	-.825***
	(.06)	(.06)	(.06)	(.06)	(.056)	(.056)	(.056)	(.056)
DY	-.02***	-.019***	-.019***	-.02***	-.014***	-.015***	-.014***	-.014***
	(.003)	(.003)	(.003)	(.003)	(.003)	(.003)	(.003)	(.003)
MTB	.345***	.346***	.346***	.346***	.36***	.359***	.36***	.359***
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)
SIZE	-.075***	-.072***	-.071***	-.075***	-.064***	-.068***	-.064***	-.067***
	(.008)	(.008)	(.008)	(.008)	(.008)	(.008)	(.008)	(.008)
RET	-.007***	-.007***	-.007***	-.007***	-.006***	-.006***	-.006***	-.006***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
SOL	-.309***	-.314***	-.314***	-.31***	.377***	.373***	.376***	.373***
	(.028)	(.028)	(.028)	(.028)	(.026)	(.026)	(.026)	(.026)

_cons	1.994***	2.132***	1.99***	1.947***	11.78*	17.27***	11.773**	15.287**
	(.082)	(.079)	(.096)	(.094)	(6.054)	(6.064)	(5.958)	(6.069)
FD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ID	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
YD	No	No	No	No	No	No	No	No
Obs	6854	6854	6854	6854	6854	6854	6854	6854

Source: Author's Analysis

Notes: This table shows the regression results obtained by using the Random Effects and FGLS Models to determine the relationship between ESG and TQ in 26 emerging countries from 2010 to 2019. The ENV, SOC, GOV, and ESG were analyzed separately. The last rows presented the Firm, Industry, Country, and Year dummies. The values shown in the tables are co-efficient, and the values in parenthesis are Standard errors. Similarly, ***, **, and * represent the significance level at 1%, 5% and 10%, respectively.

The current study also detects the heteroscedasticity problem for TQ; and hence, similar like other proxies, the FGLS models have also used for TQ to get more robust results. Table 10 presents the results of FGLS models. Results showed that the environmental pillar has significant and positive impact on TQ. Similarly, social and governance scores have also demonstrated significant and positive association with TQ. Finally, results also concluded that aggregate ESG score has significant and positive impact on TQ. The results of control variables are similar to random effects models for TQ. However, the results of firm solvency have been changed and became significant and positive in FGLS models.

5. Conclusions, Recommendations, and Future Directions

The study's primary purpose is to examine the relationship between ESG practices and capital market response in emerging countries. For this purpose, the study used the sample of 1042 companies of 26 emerging countries for the period of 2010-2019. The study has used different proxies such as market-adjusted return (MAR), market value added (MVA) and Tobin's Q (TQ) to measure the capital market response in order to provide more comprehensive findings and to achieve the more robust results. Despite this, current study has also used pillar-wise environmental, social and governance scores, as well as aggregate ESG scores to examine the relationship between ESG practices and capital market response in emerging countries.

The study has estimated fixed effects, random effects, and FGLS models to meet the study objectives and to test the research hypotheses. Results showed significant and positive association between environmental, social and governance pillar-wise scores and MAR; as well as aggregate ESG scores and MAR by using both the fixed effects models and FGLS models. The findings of this study support the assumptions made by stakeholder theory; which predicted a positive association between ESG practices and firm high market returns. The study based on stakeholder theory meets the needs of different stakeholders, increasing the firm return and also the investor's positive response in the capital markets of emerging countries. The firms which are doing ESG practices and disclosing voluntary ESG informations are high in market returns, attracting more investors and thus as a result, the ethical investors are more willing to purchase the shares of these companies (Anderson & Frankle, 1980).

Similarly, the results of fixed effects and FGLS models for MVA also revealed that pillar-wise environmental, social and governance scores and aggregate ESG scores have significant and positive impact on MVA. Thus, high MVA of firm is evidence of effective management and solid operational capabilities (Lalitha, Sandhyavani & Sudha, 2020). Thus, the results of current study concluded that the firms in emerging countries have high MVA values; therefore, these firms are more effective and efficient in their operational capabilities; and these firms can increase the shareholders' value, which ultimately motivating and attracting more potential investors. As a result, the investors react positively to these firms; hence, the study confirms the stakeholder theory. Similar results were also found by Comincioli, Poddi and Vergalli (2012); and Cristian, Nicsola, Laura and Sergio (2017).

Finally, the results of third proxy i.e. Tobin's Q revealed that there is significant and positive association between environmental, social and governance pillars and TQ; as well as aggregate ESG scores and TQ. These results support the previous results found by Aouadi and Marsat (2018); Aybars et al. (2019); Balasubramanian (2019); Fatemi et al. (2017); Garcia et al. (2019), and Nekhili et al. (2021). The results of current study validate the stakeholder's theory which states that satisfying the needs of stakeholders would increase the firm performance in terms of firm value. Thus, strengthening the relationships with stakeholders promote the firm reputation, enhance firm legitimacy, and reduce the transaction costs of the firm (Barnett, 2007; Perrini et al., 2009). Furthermore, sustainability reporting can be viewed as an investment opportunity in which the positive capital market response in return, increases the firm's value (Perrini et al., 2009).

5.1. Recommendations of the Study

The current study has important practical implications for investors, corporate

managers, regulators, and policymakers. First, the study findings would help the regulators to identify the importance of ESG practices and make mandatory rules and regulations that promote sustainable investment opportunities in the capital markets of emerging countries. Moreover, it would also help the regulators to introduce the ESG indexes that would help to improve the ESG reporting and performances in emerging countries.

Second, from the management point of view, the current study would help the managers to adopt such strategies that provide the maximum possible benefits to shareholders by disclosing the ESG information and recognizing the demand for ESG from investors that would make them able to act sustainably and generate long-term sustainable value for shareholders.

Third, for policymakers, the study provides valuable information about ESG and capital market response that would help the policymakers to evaluate the current ESG practices and to identify the priorities and actions in better way to align the future investments with sustainable and long-term firm value.

5.2. Future Directions

Firstly, the current study has investigated the effect of ESG practices on capital market response in emerging countries. The study results can be further improved if both the emerging and developed countries may be considered.

Secondly, a comparative study can be conducted where the results of the emerging and developed countries can be compared for differences in the response of capital markets toward ESG practices.

Thirdly, the current study has used ESG measures based on the Refinitiv Eikon database; the results of the study can be further triangulated by using several other databases (i.e., KLD, Bloomberg, MSCI, Dow Jones, Vigeo rating agency, EURO STOXX Sustainability Index) that have different method of computing ESG index.

Finally, current study used only secondary data; in future studies the questionnaires can be used for data collection and consider small and medium enterprises to examine the ESG practices in emerging markets.

References

Aboud, A., & Diab, A. (2018). The impact of social, environmental and corporate governance disclosures on firm value: Evidence from Egypt. *Journal of Accounting in Emerging Economies*, 8(4), 442-458.

Aboud, A., & Diab, A. (2019). The financial and market consequences of environmental, social and

governance ratings: The implications of recent political volatility in Egypt. *Sustainability Accounting, Management and Policy Journal*, 10(3), 498-520.

Akinwande, M. O., Dikko, H. G., & Samson, A. (2015). Variance inflation factor: as a condition for the inclusion of suppressor variable (s) in regression analysis. *Open Journal of Statistics*, *5*(07), 754.

Almeyda, R., & Darmansya, A. (2019). The Influence of Environmental, Social, and Governance (ESG) Disclosure on Firm Financial Performance. *IPTEK Journal of Proceedings Series*, (5), 278-290.

Ammann, M., Oesch, D., & Schmid, M. M. (2011). Corporate governance and firm value: International evidence. *Journal of Empirical Finance*, *18*(1), 36-55.

Amor-Esteban, V., Galindo-Villardón, M. P., & García-Sánchez, I. M. (2019). A multivariate proposal for a national corporate social responsibility practices index (NCSRPI) for international settings. *Social Indicators Research*, *143*(2), 525-560.

Anderson, J. C., & Frankle, A. W. (1980). Voluntary Social Reporting: An Iso-Beta Portfolio Analysis. *The Accounting Review*, *55*(3), 467.

Antonakis, J., Bendahan, S., Jacquart, P., & Lalive, R. (2010). On making causal claims: A review and recommendations. *The Leadership Quarterly*, *21*(6), 1086-1120.

Aouadi, A., & Marsat, S. (2018). Do ESG controversies matter for firm value? Evidence from international data. *Journal of Business Ethics*, *151*(4), 1027-1047.

Armstrong, C. S., Barth, M. E., Jagolinzer, A. D., & Riedl, E. J. (2010). Market reaction to the adoption of IFRS in Europe. *The Accounting Review*, *85*(1), 31-61.

Atan, R., Alam, M. M., Said, J., & Zamri, M. (2018). The impacts of environmental, social, and governance factors on firm performance: Panel study of Malaysian companies. *Management of Environmental Quality: An International Journal*, *29*(2), 182–194.

Aybars, A., Ataünal, L., & Gürbüz, A. O. (2019). ESG and financial performance: impact of environmental, social, and governance issues on corporate performance. In *Handbook of research on managerial thinking in global business economics* (520-536). IGI Global.

Balatbat, M., Siew, R., & Carmichael, D. (2012). ESG scores and its influence on firm performance: Australian evidence. In *Australian School of Business School of Accounting, School of Accounting Seminar Series Semester (2)*, (1-30).

Balasubramanian, A. M. D. P. (2019). A Study on Relationship Between Corporate Financial Performance and Environmental Social & Governance Score (Esg Score). *FIFI-2019*.

Baldini, M., Maso, L. D., Liberatore, G., Mazzi, F., & Terzani, S. (2018). Role of country-and firm-level determinants in environmental, social, and governance disclosure. *Journal of Business Ethics*, *150*(1), 79-98.

Baraibar-Diez, E., Odriozola, M. D., & Fernandez Sanchez, J. L. (2019). Sustainable compensation pol-

icies and its effect on environmental, social, and governance scores. *Corporate Social Responsibility and Environmental Management*, *26*(6), 1457-1472.

Barkema, H. G., Chen, X. P., George, G., Luo, Y., & Tsui, A. S. (2015). West meets East: New concepts and theories. *Academy of Management Journal*, *58*(2), 460-479.

Barnett, M. L. (2007). Stakeholder Influence Capacity and the Variability of Financial Returns to Corporate Social Responsibility. *Academy of Management Review*, *32*(3), 794-816.

Barney, J., Wright, M., & Ketchen Jr, D. J. (2001). The resource-based view of the firm: Ten years after 1991. *Journal of Management*, *27*(6), 625-641.

Baughn, C. C., Bodie, N. L., & McIntosh, J. C. (2007). Corporate social and environmental responsibility in Asian countries and other geographical regions. *Corporate Social Responsibility and Environmental Management*, *14*(4), 189-205.

Baraibar-Diez, E., Odriozola, M. D., & Fernandez Sanchez, J. L. (2019). Sustainable compensation policies and its effect on environmental, social, and governance scores. *Corporate Social Responsibility and Environmental Management*, *26*(6), 1457-1472.

Bebchuk, L. A., & Weisbach, M. S. (2010). The State of Corporate Governance Research. *The Review of Financial Studies*, *23*(3), 939-961.

Belkaoui, A., & Karpik, P. G. (1989). Determinants of the corporate decision to disclose social information. *Accounting, Auditing & Accountability Journal*, *2*(1), 0-0.

Benlemlih, M., & Girerd-Potin, I. (2017). Corporate social responsibility and firm financial risk reduction: On the moderating role of the legal environment. *Journal of Business Finance & Accounting*, *44*(7-8), 1137-1166.

Bernardi, C., & Stark, A. W. (2018). Environmental, social and governance disclosure, integrated reporting, and the accuracy of analyst forecasts. *The British Accounting Review*, *50*(1), 16-31.

Bharadwaj, A. S., Bharadwaj, S. G., & Konsynski, B. R. (1999). Information technology effects on firm performance as measured by Tobin's q. *Management Science*, *45*(7), 1008-1024.

Bhagat, S., & Bolton, B. (2008). Corporate governance and firm performance. *Journal of corporate finance*, *14*(3), 257-273.

Black, B. S., Jang, H., & Kim, W. (2006). Does corporate governance predict firms' market values? Evidence from Korea. *The Journal of Law, Economics, and Organization*, *22*(2), 366-413.

Brammer, S. J., & Pavelin, S. (2006). Corporate reputation and social performance: The importance of fit. *Journal of Management Studies*, *43*(3), 435-455.

Brogi, M., & Lagasio, V. (2019). Environmental, social, and governance and company profitability: Are financial intermediaries different?. *Corporate Social Responsibility and Environmental Management*, *26*(3), 576-587.

Capelle-Blancard, G., & Petit, A. (2019). Every little helps? ESG news and stock market reaction. *Journal of Business Ethics*, *157*(2), 543-565.

Carolina Rezende de Carvalho Ferreira, M., Amorim Sobreiro, V., Kimura, H., & Luiz de Moraes Barboza, F. (2016). A systematic review of literature about finance and sustainability. *Journal of Sustainable Finance & Investment*, *6*(2), 112-147.

Carter, C. R., Kale, R., & Grimm, C. M. (2000). Environmental purchasing and firm performance: an empirical investigation. *Transportation Research Part E: Logistics and Transportation Review*, *36*(3), 219-228.

Charlo, M. J., Moya, I., & Muñoz, A. M. (2017). Financial performance of socially responsible firms: The short-and long-term impact. *Sustainability*, *9*(9), 1622.

Cheng, B., Ioannou, I., & Serafeim, G. (2014). Corporate social responsibility and access to finance. *Strategic Management Journal*, *35*(1), 1–23.

Cheung, Y. L., Connelly, J. T., Estanislao, J. P., Limpaphayom, P., Lu, T., & Utama, S. (2014). Corporate Governance and Firm Valuation in Asian Emerging Markets. *CSR, Sustainability, Ethics & Governance*, 27-53.

Clark-Murphy, M., & Soutar, G. (2005). Individual investor preferences: A segmentation analysis. *The Journal of Behavioral Finance*, *6*(1), 6-14.

Cochran, P. L., & Wood, R. A. (1984). Corporate social responsibility and financial performance. *Academy of Management Journal*, *27*(1), 42-56.

Cohen, G., & Kudryavtsev, A. (2012). Investor rationality and financial decisions. *Journal of Behavioral Finance*, *13*(1), 11-16.

Comincioli, N., Poddi, L., & Vergalli, S. (2012). Corporate social responsibility and firms' performance: A stratigraphical analysis. *Available at SSRN 2132202*.

Crane, A., Graham, C., & Himick, D. (2015). Financializing stakeholder claims. *Journal of Management Studies*, *52*(7), 878-906.

Davis, K. (1973). The case for and against business assumption of social responsibilities. *Academy of Management Journal*, *16*(2), 312-322.

Devalle, A. (2017). The linkage between ESG performance and credit ratings: *A Firm-level Perspective Analysis*, 53-65.

Dierkes, M., & Preston, L. E. (1977). Corporate social accounting reporting for the physical environment: A critical review and implementation proposal. *Accounting, Organizations and Society*, *2*(1), 3-22.

Djurfeldt, G. (2009). Multipel Regressionsanalys (MRA). In: G. Djurfeldt & M. Barmark. *Statistisk verktygslåda 2 : multivariat analys.* Lund: Studentlitteratur. 105-124.

Dobers, P., & Halme, M. (2009). Corporate social responsibility and developing countries. *Corporate Social Responsibility and Environmental Management*, *16*(5), 237-249.

Doughtery, C. (2007). *Introduction to Econometrics*. Third edition. New York: Oxford University Press.

Drobetz, W., Schillhofer, A., & Zimmermann, H. (2004). Corporate governance and expected stock returns: Evidence from Germany. *European Financial Management*, *10*(2), 267-293.

Dumitrescu, A., El Hefnawy, M., & Zakriya, M. (2020). Golden geese or black sheep: Are stakeholders the saviors or saboteurs of financial distress?. *Finance Research Letters*, *37*, 101371.

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 and Finance*, *35*, 2388–2406.

Fatemi, F., Ardalan, A., Aguirre, B., Mansouri, N., & Mohammadfam, I. (2017). Social vulnerability indicators in disasters: Findings from a systematic review. *International Journal of Disaster Risk Reduction*, *100*(22), 219-227.

Fatemi, A., Glaum, M., & Kaiser, S. (2018). ESG performance and firm value: The moderating role of disclosure. *Global Finance Journal*, *38*(C), 45-64.

Field, A., (2009). "Discovering Statistics Using SPSS", 3rd edition. SAGE Publications Ltd, London.

Fisher-Vanden, K., & Thorburn, K. S. (2011). Voluntary corporate environmental initiatives and shareholder wealth. *Journal of Environmental Economics and Management*, *62*(3), 430-445.

Freeman, R. E. (1984). Strategic management: a stakeholder approach. Boston: Pitman Publishing. (1, 4).

Freeman, R. E. (2010). *Strategic management: A stakeholder approach*. Cambridge university press.

Galema, R., Plantinga, A., & Scholtens, B. (2008). The stocks at stake: Return and risk in socially responsible investment. *Journal of Banking & Finance*, *32*(12), 2646-2654.

Garay, L., & Font, X. (2012). Doing good to do well? Corporate social responsibility reasons, practices and impacts in small and medium accommodation enterprises. *International Journal of Hospitality Management*, *31*(2), 329-337.

Garcia, A. S., Mendes-Da-Silva, W., & Orsato, R. J. (2017). Sensitive industries produce better ESG performance: Evidence from emerging markets. *Journal of Cleaner Production*, *100*(150), 135-147.

Garcia, A. S., Mendes-Da-Silva, W., & Orsato, R. J. (2019). Corporate sustainability, capital markets, and ESG performance. In *Individual behaviors and technologies for financial innovations* (pp. 287-309).

Giannarakis, G., Andronikidis, A., & Sariannidis, N. (2020). Determinants of environmental disclosure: investigating new and conventional corporate governance characteristics. *Annals of Operations Research*, *294*(1), 87-105.

Gibson, R.., & Krüger, P. (2018). The sustainability footprint of institutional investors. *Swiss Finance Institute Research Paper*, (17-05).

Godfrey, P. C. (2005). The relationship between corporate philanthropy and shareholder wealth: A risk management perspective. *Academy of Management Review*, *30*(4), 777-798.

Gompers, P., Ishii, J., & Metrick, A. (2003). Corporate governance and equity prices. *The Quarterly Journal of Economics*, *118*(1), 107-156.

Hair, J.F., Black, W.C., Babin, B.J. & Anderson R.E. (2010). *Multivariate Data Analysis a Global Perspective*. 7th edition. Upper Saddle River: Pearson

Hamilton, B. H., & Nickerson, J. A. (2003). Correcting for endogeneity in strategic management research. *Strategic Organization*, *1*(1), 51-78.

Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica: Journal of the Econometric Society*, *46*(6), 1251-1271.

Hood, M., Nofsinger, J. R., & Varma, A. (2014). Conservation, discrimination, and salvation: Investors' social concerns in the stock market. *Journal of Financial Services Research*, *45*(1), 5-37.

Huang, D. Z. (2021). Environmental, social and governance (ESG) activity and firm performance: A review and consolidation. *Accounting & Finance*, *61*(1), 335-360.

Ioannou, I., & Serafeim, G. (2012). What drives corporate social performance? The role of nation-level institutions. *Journal of International Business Studies*, *43*(9), 834-864.

Jackling, B., & Johl, S. (2009). Board structure and firm performance: Evidence from India's top companies. *Corporate Governance: An International Review, 17*(4), 492–509.

Jagongo, A., & Mutswenje, V. S. (2014). Factors influencing investment decisions at the Nairobi stock exchange. *International Journal of Humanities and Social Science*, *4*(4), 11-14.

Jansson, M., Biel, A., Andersson, M., & Gärling, T. (2011). Investment Style and Perceived Drivers of Adoption of Socially Responsible Investment among Swedish Institutional Investors. *The Journal of Investing*, *20*(3), 118-123.

Jiang, B., Belohlav, J. A., & Young, S. T. (2007). Outsourcing impact on manufacturing firms' value: Evidence from Japan. *Journal of Operations Management*, *25*(4), 885-900.

Jo, H., & Na, H. (2012). Does CSR reduce Firm Risk? Evidence from Controversial Industry Sectors. *Journal of Business Ethics*, *110*(4), 441-456.

Jones, T. M. (1995). Instrumental stakeholder theory: A synthesis of ethics and economics. *Academy of Management Review*, *20*(2), 404-437.

Ketokivi, M., & McIntosh, C. N. (2017). Addressing the endogeneity dilemma in operations management research: Theoretical, empirical, and pragmatic considerations. *Journal of Operations*

Management, 52(1), 1-14.

Kim, J., Chung, S., & Park, C. (2013). Corporate social responsibility and financial performance: the impact of the MSCI ESG ratings on Korean firms. *Journal of the Korea Academia-Industrial Cooperation Society, 14*(11), 5586-5593.

Kitzmueller, M. (2008). Economics and corporate social responsibility.

Klarner, P. (2010). *The Rhythm of Change: A Longitudinal analysis of the European Insurance Industry.* Springer Science & Business Media.

Konar, S., & Cohen, M. A. (2001). Does the market value environmental performance? *Review of Economics and Statistics, 83*(2), 281-289.

KPMG Survay of Corporate Social Responsibility Reporting, 2015. Available online: https://home. kpmg. com/xx/en/home.html.

Krafft, J., Qu, Y., Quatraro, F., & Ravix, J. L. (2014). Corporate governance, value and performance of firms: New empirical results on convergence from a large international database. *Industrial and Corporate Change, 23*(2), 361-397.

Lalitha, N., Sandhyavani, K. V., & Sudha, M. (2020) Relevance of MVA and Tobin's Q Model as an Investment Decision Tool. *Journal of Critical Reviews, 7*(19), 2593-2602.

Lemmon, M. L., & Lins, K. V. (2003). Ownership structure, corporate governance, and firm value: Evidence from the East Asian financial crisis. *The Journal of Finance, 58*(4), 1445-1468.

Liao, D., & Valliant, R. (2012). Variance inflation factors in the analysis of complex survey data. *Survey Methodology, 38*(1), 53-62.

Lokuwaduge, C. S. D. S., & Heenetigala, K. (2017). Integrating environmental, social and governance (ESG) disclosure for a sustainable development: An Australian study. *Business Strategy and the Environment, 26*(4), 438-450.

Lucas, M. T., & Noordewier, T. G. (2016). Environmental management practices and firm financial performance: The moderating effect of industry pollution-related factors. *International Journal of Production Economics, 175*, 24-34.

Man, C. K. (2017). Ph. D Thesis International Perspective: The Impact of Corporate Social Responsibility Reports on Analysts' Coverage and Forecast Properties: Evidence from FT Global 500.

Margolis, J. D., & Walsh, J. R. (2003). Misery loves rethinking companies: Social initiatives. *Administrative Science Quarterly, 48*(2), 268-305.

Martí-Ballester, C. P. (2015). Can socially responsible investment for cleaner production improve the financial performance of Spanish pension plans?. *Journal of Cleaner Production, 106*, 466-477.

McWilliams, A., Siegel, D., & Teoh, S. H. (1999). Issues in the use of the event study methodology: A crit-

ical analysis of corporate social responsibility studies. *Organizational Research Methods*, *2*(4), 340-365.

Miralles-Quirós, M. M., Miralles-Quirós, J. L., & Redondo-Hernández, J. (2019). The impact of environmental, social, and governance performance on stock prices: Evidence from the banking industry. *Corporate Social Responsibility and Environmental Management*, *26*(6), 1446-1456.

Mitsuyama, N., & Shimizutani, S. (2015). Stock market reaction to ESG-oriented management: An event study analysis on a disclosing policy in Japan. *Econ. Bull*, *35*, 1098-1108.

Naeem, M., Ullah, H., & Jan, S. (2021).The Impact of ESG Practices on Firm Performance: Evidence from Emerging Countries. *Indian Journal of Economics and Business, 20(1), 731-750.*

Nekhili, M., Nagati, H., Chtioui, T., & Rebolledo, C. (2017). Corporate social responsibility disclosure and market value: Family versus nonfamily firms. *Journal of Business Research*, *77*, 41-52.

Nekhili, M., Boukadhaba, A., & Nagati, H. (2021). The ESG–financial performance relationship: Does the type of employee board representation matter?. *Corporate Governance: An International Review*, *29*(2), 134-161.

Oikonomou, I., Brooks, C., & Pavelin, S. (2012). The impact of corporate social performance on financial risk and utility: A longitudinal analysis. *Financial Management*, *41*(2), 483-515.

Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. *Organization Studies*, *24*(3), 403–441.

Orsato, R. J., Garcia, A., Mendes-Da-Silva, W., Simonetti, R., & Monzoni, M. (2015). Sustainability indexes: why join in? A study of the 'Corporate Sustainability Index (ISE)'in Brazil. *Journal of Cleaner Production*, *96*, 161-170.

Ortas, E., Gallego-Alvarez, I., & Álvarez Etxeberria, I. (2015). Financial factors influencing the quality of corporate social responsibility and environmental management disclosure: A quantile regression approach. *Corporate Social Responsibility and Environmental Management*, *22*(6), 362-380.

Palmrose, Z. V., Richardson, V. J., & Scholz, S. (2004). Determinants of market reactions to restatement announcements. *Journal of Accounting and Economics*, *37*(1), 59-89.

Perrini, F., Russo, A., Tencati, A., & Vurro, C. (2009). Going beyond a long-lasting debate: What is behind the relationship between corporate social and financial performance. *EABIS Research Project Working Paper*.

Pollard, J. L., Sherwood, M. W., & Klobus, R. G. (2018). Establishing ESG as risk premia. *Journal of Investment Management*, *16*(1), 32-43.

Refinitiv. (2019). *Environmental, Social and Governance (ESG) Data from Refinitiv.* Available at: https://www.refinitiv.com/en/financial-data/company-data/esg-data

Refinitiv. (2021) *Environmental, Social and Governance (ESG) Scores from Refinitiv.* [Brochure] https://www.refinitiv.com/content/dam/marketing/en_us/documents/methodology/esg

-scores-methodology.pdf [Retrieved April 16, 2021].

Revelli, C., & Viviani, J. L. (2015). Financial performance of socially responsible investing (SRI): what have we learned? A meta-analysis. *Business Ethics: A European Review*, *24*(2), 158-185.

Rivoli, P. (1995). Ethical Aspects of Investor Behavior. *Journal of Business Ethics*, *14*(4), 265-277.

Roberts, M. R., & Whited, T. M. (2012). Endogeneity in empirical corporate finance. SSRN paper. Simon School Working Paper No. FR 11-29.

Ruan, L., & Liu, H. (2021). Environmental, social, governance activities and firm performance: Evidence from China. *Sustainability*, *13*(2), 767.

Salama, A., Anderson, K., & Toms, J. S. (2011). Does community and environmental responsibility affect firm risk? Evidence from UK panel data 1994–2006. *Business Ethics: A European Review*, *20*(2), 192-204.

Schijven, M., & Hitt, M. A. (2012). The vicarious wisdom of crowds: Toward a behavioral perspective on investor reactions to acquisition announcements. *Strategic Management Journal*, *33*(11), 1247-1268.

Shakil, M. H., Mahmood, N., Tasnia, M., & Munim, Z. H. (2019). Do environmental, social and governance performance affect the financial performance of banks? A cross-country study of emerging market banks. *Management of Environmental Quality: An International Journal*.

Siagian, F., Siregar, S. V., & Rahadian, Y. (2013). Corporate governance, reporting quality, and firm value: evidence from Indonesia. *Journal of Accounting in Emerging Economies*, *3*(1), 4-20.

Simerly, R. L., & Li, M. (2000). Environmental dynamism, capital structure and performance: a theoretical integration and an empirical test. *Strategic Management Journal*, *21*(1), 31-49.

Singh, P. J., Sethuraman, K., & Lam, J. Y. (2017). Impact of corporate social responsibility dimensions on firm value: Some evidence from Hong Kong and China. *Sustainability*, *9*(9), 1532.

Stevens, C. E., Kidwell, R. E., & Sprague, R. (2015). Bound by laws, or by values? A multi-level and cross-national approach to understanding the protection of minority owners in family firms. *Corporate Governance: An International Review*, *23*(3), 203-215.

Surroca, J., Tribó, J. A., & Waddock, S. (2010). Corporate responsibility and financial performance: The role of intangible resources. *Strategic Management Journal*, *31*(5), 463-490.

Van Beurden, P., & Gössling, T. (2008). The worth of values–a literature review on the relation between corporate social and financial performance. *Journal of Business Ethics*, *82*(2), 407-424.

Von Wallis, M., & Klein, C. (2015). Ethical requirement and financial interest: a literature review on socially responsible investing. *Business Research*, *8*(1), 61-98.

Wäneryd, K. E. (2001). *Stock-market psychology: How people value and trade stocks*. Edward Elgar Publishing.

Wellalage, N.H. (2012), "Corporate Governance and Financial Performance of Sri Lanka Listed Com-

panies 2006- 2010", PhD Thesis, Hamilton: The University of Waikato.

Wu, M. L. (2006). Corporate social performance, corporate financial performance, and firm size: A meta-analysis. *Journal of American Academy of Business*, *8*(1), 163-171.

Yoon, B., Lee, J. H., & Byun, R. (2018). Does ESG performance enhance firm value? Evidence from Korea. *Sustainability*, *10*(10), 3635.

Zhao, C., Guo, Y., Yuan, J., Wu, M., Li, D., Zhou, Y., & Kang, J. (2018). ESG and corporate financial performance: Empirical evidence from China'slisted power generation companies.*Sustainability,10*(8), 260–277.